

EAST BELLEVUE COMMUNITY COUNCIL

Packet Materials for
REGULAR MEETING

October 4, 2016



Welcome to Your East Bellevue Community Council Meeting

Community Council meetings offer you the chance to express your opinions to your elected officials. Community Council members welcome your participation and hope that the following information is helpful:

Oral Communications

Public participation is encouraged by the Community Council. On each agenda, Item 4 and 13 are set aside to allow you to speak on any subject you wish, except those subjects listed for public hearing. You must sign up in order to be recognized by the Chair. When you are called upon, stand up, give your name and address for the record, and state your views. Please speak loudly and clearly if you are in the back of the room so that your remarks will be audible on the recorder. If many people wish to speak, the Chair may decide to limit the amount of time allowed for each individual's comments in the interests of conducting the meeting in a reasonable and practical fashion. The Community Council will not respond to comments directly, but will take matters under advisement and will ask for staff to prepare a response when necessary.

Courtesy Public Hearing

A courtesy public hearing on a particular project gives the citizen, the applicant, and Community Council members an opportunity to review a project, ask questions, make suggestions, and express concerns prior to the formal processing of the application and the commencement of the Hearing Examiner process. Community Council members take no formal action at this time.

Courtesy public hearings are also held on proposed legislation, such as changes to the Comprehensive Plan. In this case, citizens have the opportunity to provide input to staff and elected officials in this informal setting. Such testimony does not take the place of an appearance before the Planning Commission, however.

If you wish to speak at a courtesy public hearing, sign your name on the sign up sheet and do as you would for "Oral Communications", i.e., stand up, state your name and address and present your views as briefly as possible. If you have no new information to be considered, simply say that you support or disagree with a previous speaker.

Public Hearing

State Statute allows the Community Council 60 days to approve or disapprove City Council ordinances or resolutions regarding land use matters within its jurisdiction. Disapproval means that the legislation does not apply within the Community Council service area, or that the project is denied. A public hearing is held before the decision is made. First, the staff makes a presentation and Council members ask their questions. Then the hearing is opened and the public is invited to comment. To speak, follow the procedures described above. Everyone who wishes to speak will have the opportunity to do so. After the last person has spoken, the hearing is closed. Then Council members discuss the issue and make their decision. The audience may not comment during the Community Council's deliberations unless invited to do so.

If you have any questions, feel free to call the City Clerk's office at (425) 452-6466.

Agenda

CITY OF BELLEVUE
EAST BELLEVUE COMMUNITY COUNCIL
Regular Meeting

Lake Hills Clubhouse
15230 Lake Hills Boulevard, Bellevue WA

Tuesday, October 4, 2016 6:30 - 8:30 PM

Page No.

1. Call to Order
2. Roll Call
3. Flag Salute
4. Communications: Written and Oral
5. Reports of City Council, Boards and Commissions
 - (a) Community Council Business and New Initiatives
6. Approval of Agenda
7. Department Reports
 - (a) Critical Areas Ordinance Amendment Update
 - (b) Kelsey Creek Building E Update
8. Public/Courtesy Hearings
9. Resolutions
10. Committee Reports
11. Unfinished Business
12. New Business
 - (a) Discussion Regarding Potential Future Agenda Items *
 - Eastgate Land Use Code Amendments
 - LID Principles
 - Final Regulations on Marijuana Uses
 - Lake Hills Art Project

1

151

****The future agenda items are not specific to any date. They will appear on the EBCC***

Agenda as they become ripe for discussion/action.

The meeting room is wheelchair accessible. American sign language (ASL) interpretation available upon request (425 452-6466) at least 48 hours in advance. Contact email address for East Bellevue Community Council: EBCC@bellevuewa.gov

13. Continued Communications

14. Executive Session

15. Approval of Minutes

(a) Summary Regular Meeting Minutes September 6, 2016

152

16. Adjournment



MEMORANDUM

DATE: October 4, 2016

TO: East Bellevue Community Council (EBCC)

FROM: Carol Helland, Land Use Director
Development Services Department

SUBJECT: EBCC Briefing regarding Critical Areas Overlay Update needed to Comply with the Growth Management Act

The Growth Management Act (GMA) states, "...cities and counties shall take action to review and, if needed, revise their comprehensive plans and development regulations to ensure the plan and regulations comply with the requirements of this chapter..." (RCW 36.70A.130) Last year, Bellevue adopted the update to the City's Comprehensive Plan in compliance with these requirements by Ordinance No. 6251. On September 1, 2015, the EBCC approved Ordinance No. 6251 by unanimous approval of Resolution No. 551.

On May 2, 2016, the City Council adopted Resolution No. 9094 finding that Bellevue's development regulations complied with the requirements of GMA, with the exception of certain critical areas regulations. On August 1, staff sought direction from the City Council on the scope of the critical areas update land use code amendment (LUCA) and whether the Council should hold the public hearing rather than forwarding it to the Planning Commission. Following discussion, staff was directed "to conduct a narrowly tailored code amendment to the Critical Areas Ordinance (CAO), aimed at maintaining the City's development requirements under the Growth Management Act, and to advance the code package to the City Council for public hearing. This process path is necessary in order to accomplish the State-mandated CAO update as quickly as possible to maintain grant eligibility."

On September 12, 2016, the Best Available Science (BAS) and Existing Conditions report, and the Gap Analysis were introduced to the City Council together with a draft of the narrowly tailored code amendment that Council had requested. At the end of the study session on this topic, the City Council scheduled the required public hearing on October 10, for them to take public comment on the proposed CAO Update.

The East Bellevue Community Council has approval/disapproval authority over amendments to the Comprehensive Plan; and, as stated above, the EBCC exercised its approval/disapproval authority over the Comprehensive Plan Update when it took final action on September 1 to approve Resolution No. 551. However, the EBCC does not have approval/disapproval authority over amendments to critical area and shoreline codes. Sammamish Cmty. Council v. City of Bellevue, 108 Wash. App. 46, 55, 29 P.3d 728, 732 (2001)(emphasis added) rev denied 145 Wn.2d 1037 (2002). Additionally, the Council will be acting on a "resolution" to amend the CAO in order to coordinate review

of the CAO Update with the ongoing review of the Shoreline Master Program (SMP) Update. The EBCC authority does not extend to Council resolutions.

In this case, Council will be acting on a resolution to streamline the review that is required by two state agencies – the Washington State Departments of Ecology and Commerce. Several amendments proposed as part of the limited CAO Update affect the same sections of Part 20.25H as the Council's prior SMP Conformance Amendments, adopted by the Council with Resolution No. 8922. Code amendments adopted by Resolution No. 8922 are currently with the Department of Ecology as they perform the review and approval required under the Shoreline Management Act (SMA).

In order to avoid confusion or inadvertent inconsistencies between the amendments to the CAO Update proposed now, and the amendments that were previously approved by the Council as part of the SMP Update, staff has added the limited CAO code amendments to the amendments previously adopted by Resolution No. 8922. This approach allows for review by Council and stakeholders in a single document. Staff has received commitments from the Departments of Ecology and Commerce that they will accept this combined code amendment processing approach to meet the update requirements of both the SMA and the GMA.

Following completion of the code amendment process, including a public hearing and adoption of a final resolution by the City Council, the documents will be forwarded to the appropriate state agencies to complete their required updates. The code amendment will be transmitted to the Department of Ecology for inclusion in its review and for the public to comment on as part of the City's SMP Update. The code amendment will also be forwarded to the Washington State Department of Commerce to demonstrate compliance with the GMA to preserve state grant funding and loan eligibility.

The CAO Update will be effective after the SMP Update is approved by the Department of Ecology. This approach is intended to ensure consistency between the SMP and CAO Updates (both of which require state approval), and to ensure that the updates are adopted contemporaneously, and environmental protections are preserved as envisioned by the Comprehensive Plan.

The staff report and associated attachments prepared in support of the public meeting scheduled for October 10, have been attached to this memorandum for EBCC reference. Staff will be present at the EBCC's October 4 meeting to provide a briefing on the proposed CAO Update, and to answer any questions you may have.

ATTACHMENTS:

- Staff Report for Public Hearing on Critical Areas Overlay Update
- A-1. Best Available Science and Existing Conditions Update
- A-2. Gap Analysis and Addendum
- A-3. Recommended Narrowly Tailored Code Amendment
- A-4. Effects of Proposed CAO Revisions. The Watershed Company. September 21, 2016.



STAFF REPORT

DATE: September 22, 2016

TO: Mayor Stokes and Members of the City Council

FROM: Carol Helland, Land Use Division Director 452-2724
Development Services Department

SUBJECT: Public Hearing on Critical Areas Overlay Update for consistency with the Growth Management Act requirement of jurisdictions planning under RCW 36.70A.040 File No. 16-141195-AD

The Growth Management Act (GMA) states, "... *cities and counties shall take action to review and, if needed, revise their comprehensive plans and development regulations to ensure the plan and regulations comply with the requirements of this chapter....*" (RCW 36.70A.130) Last year, Bellevue adopted the update to the City's Comprehensive Plan in compliance with these requirements. On May 2, 2016, the Council adopted Resolution No. 9094 finding that Bellevue's development regulations complied with the requirements of GMA, with the exception of certain critical areas regulations.

On August 1, staff sought direction from the City Council on the scope of the critical areas update land use code amendment (LUCA) and whether the Council should hold the public hearing rather than forwarding it to the Planning Commission. Following discussion, staff was directed "to conduct a narrowly tailored code amendment to the Critical Areas Ordinance (CAO), aimed at maintaining the City's development requirements under the Growth Management Act, and to advance the code package to the City Council for public hearing. This process path is necessary in order to accomplish the State-mandated CAO update as quickly as possible to maintain grant eligibility."

On September 12, 2016, the Best Available Science (BAS) and Existing Conditions report, and the Gap Analysis were introduced to the City Council. These documents are included in Attachment A-1 and A-2 respectively. These documents, together with an addendum to the Gap Analysis, identify areas where amendments are necessary to the Land Use Code (LUC) to bring the CAO into compliance with state law. The narrowly tailored code amendment requested by the City Council has also been included for consideration during the required public hearing that has been scheduled for October 10, 2016. Attachment A-3 details the code amendments to the City's CAO, found in Part 20.25H of the Land Use Code, which are needed to address the gaps identified in Attachment A-2.

Several amendments proposed as part of this limited CAO Update affect the same sections of Part 20.25H as the Council's prior Shoreline Master Program (SMP) Conformance Amendments, adopted by the Council with Resolution No. 8922. Code amendments adopted by Resolution No. 8922 are currently with the Department of Ecology as they perform the review and approval required under the Shoreline Management Act.

In order to avoid confusion or inadvertent inconsistencies between the amendments to the CAO Update proposed now, and the amendments that were previously approved by the Council as part of the SMP Update, staff has added the limited CAO code amendments to the amendments previously adopted by Resolution No. 8922. This approach allows for review by Council and stakeholders in a single document. In the time since this approach was described to the City Council on September 12th, we have received commitments from the Departments of Ecology and Commerce that they will accept the proposed approach to combine the code amendment document to meet the update requirements of both the Shoreline Management Act (SMA) and the Growth Management Act.

Following completion of the code amendment process, including a public hearing and adoption of a final resolution by the City Council, the documents will be forwarded to the appropriate state agencies to complete the updates required under SMA and GMA. The code amendment will be transmitted to the Department of Ecology for inclusion in its review and for the public to comment on as part of the City's SMP Update. The code amendment will also be forwarded to the Washington State Department of Commerce to demonstrate compliance with the GMA to preserve state grant funding and loan eligibility. The CAO Update will be effective after the SMP Update is approved by the Department of Ecology. This approach is intended to ensure consistency between the SMP and CAO Updates (both of which require state approval), and to ensure that the updates are adopted contemporaneously, and environmental protections are preserved as envisioned by the Comprehensive Plan.

A Public Hearing on the Critical Areas Overlay Update (included as Attachment A-3) is scheduled during the City Council extended study session on October 10, 2016. After deliberation and consideration of public comment received at the October 10 Public Hearing, the Council will take final action on the LUCA on October 10th or at a future Council meeting.

I. BACKGROUND

In order to be eligible for certain types of state funding (e.g., transportation, utilities and parks), cities and counties planning under the GMA must be in compliance with the requirements of the statute. King County and all of the cities within the county were required to review and, if needed, revise their Comprehensive Plans and development regulations by June of 2015. City Council adopted the update of Bellevue's Comprehensive Plan on August 3, 2015. The Washington Department of Commerce

indicated that the city still needed to finalize the review and update of development regulations and critical area regulations.

On April 18, 2016, the staff from the Planning and Community Development (PCD) department presented its review and findings to document GMA compliance of the development regulations. Following the required public hearing, the City Council adopted Resolution No. 9094 to affirm the finding that Bellevue's development regulations comply with the requirements of GMA. The finding of compliance applied to all development regulations except for critical areas (which was on a separate compliance timeline).

Council Direction on the CAO Update

On August 1, 2016, the City Council initiated the CAO code amendment and found that it was necessary for the Council to retain the responsibility for the public hearing to expedite the amendment process to preserve its eligibility for state grants and loans. On September 12, the City Council was introduced to the Best Available Science and Existing Conditions Report and Gap Analysis. These documents together provided the information necessary for staff, with consultant assistance, to develop the narrowly tailored code amendment requested by the City Council to ensure that the City's Land Use Code is consistent with GMA.

During the September 12 Study Session, the City Council also directed staff to prepare an explanatory document summarizing how the proposed code amendments relate to the existing regulations and how property owners will be affected. Enhanced noticing was also requested for property owners that would be affected by the proposed LUCA.

1. Impact of the LUCA on Affected Property Owners

A total of 12 code changes are being proposed by staff based upon the Gap Analysis that was prepared by the City's consultant. Nine of the proposed changes are characterized as non-substantive because they would not change the way in which the CAO is administered, or the scope of work or time associated with obtaining a permit. The three substantive changes relate to:

- The classification of wetlands, and the assignment of wetland buffers applicable to heritage wetlands and bogs;
- The public safety need to undertake site specific geotechnical studies to identify toe-of-slope setbacks from landslide hazard areas based on lessons learned from the Oso slide; and
- The location of trails in wetland and stream buffers located on single family lots.

The memorandum prepared by The Watershed Company, and included with this staff report as Attachment A-4, describes the basis for each substantive change, and the effect of the proposed change on property owners.

2. Enhanced Notice to Affected Property Owners

The City Council also requested staff to provide enhanced notification of the October 10 public hearing. The staff complied with the legal notification requirements for city-wide LUCAs pursuant to the Bellevue Land Use Code and GMA. Legal notification includes publication in the City's Weekly Permit Bulletin, distribution to individuals who have requested subscriptions to the Weekly Permit Bulletin, and notification to individuals who commented on the proposal. The subscription list contains members of the Community Council, and representatives from each neighborhood association, community club, or other citizens' group who has requested notice of land use actions. Notification of the proposed LUCA was also placed in the Seattle Times.

Enhanced notification was also provided in response to the City Council request through the following additional measures:

- Mailed notice was provided to owners with property touched by or within 150 feet of a state or federally mapped wetland or identified stream.
- A City Website page was developed for the code amendment component of the Comprehensive Plan Update. This website includes the technical documents prepared for the original CAO adoption, technical updates prepared to support the current update, the narrowly tailored code amendment prepared in response to Council direction, and the explanatory document summarizing how the proposed changes relate to the existing regulation and how property owners can expect to be affected by the proposed code change.
- The Shoreline Master Program Update page was also updated with links to the CAO Update so that information would be pushed out to individuals who had previously expressed an interest in the SMP Update and subscribed to the website alerts on that topic.

Why is the CAO Update Important?

In August of 2015, the City Council adopted its updated Comprehensive Plan following a multi-year process that included public events and open houses, over 70 meetings of different boards and commissions; an online strategy that included project websites, social media and an online open house; meetings with neighborhoods and stakeholders; a series of press releases and op-eds; and a speaker series. The updated "Comprehensive Plan sets out the community's vision for the future, lays out a groundwork of planning policies to guide city actions, and provides a framework so that

city departments and community organizations work together toward common goals.”
Comprehensive Plan General Elements – Volume 1. Introduction and Vision, p. 2.

“Bellevue’s Comprehensive Plan is the city’s foundational policy document that guides growth and development for the next twenty years. Today, Bellevue is known as a community with beautiful natural areas, a vibrant downtown and strong economy, some of the nation’s best schools, and healthy neighborhoods. Bellevue’s success today isn’t a fluke. It stems from decades of community work, foresight, and planning.”

Comprehensive Plan General Elements – Volume 1. Introduction and Vision, p. 1.

Among other things, the Environmental Element of the Comprehensive Plan was updated. The plan’s “elements” or chapters provide the city’s long-range policy direction for specific topics. The LUCA that is currently proposed by staff is intended to ensure that regulations adopted to guide development are consistent with the Comprehensive Plan, and work effectively to enhance those qualities that make Bellevue a special place. Having regulations consistent with the Comprehensive Plan helps the community achieve its potential.

The update to the Critical Area Overlay is also important in order to remain in compliance with state law, which preserves City eligibility for certain types of state funding. For example, the state Transportation Improvement Board (TIB) considers GMA compliance as part of an eligibility review of agencies who have submitted applications to their grant programs, including the Urban Arterial Program (UAP). This August, the Transportation Department submitted two separate applications to the TIB UAP grant program requesting in excess of \$10 million. The applications include \$6.752 million for the 124th Avenue NE – Spring Blvd to NE 18th Street Project (CIP Plan No. PW-R-166) and \$3.5 million for the Newport Way – Somerset Blvd to 150th Ave SE Project (CIP Plan No. PW-R-185). TIB staff have indicated their GMA compliance eligibility check will occur by “mid-October.”

The purpose of this Critical Areas Overlay update is solely to ensure consistency between the Comprehensive Plan and the City’s development regulations, and to address the compliance requirements with the GMA in order to be eligible for state funding for transportation, utilities and parks projects. Amendments proposed by staff were recommended by the consultant as the minimum necessary to ensure that state compliance is achieved. Discretionary amendments recommended by the consultants have been docketed for consideration during a future CAO review. The discretionary items are not being considered as part of this current LUCA, because of the expedited timeline associated required to maintain grant eligibility, and because staff resources are dedicated to completion of other high-priority projects, including Eastgate, Downtown Livability, and the Low Impact Development Principles projects.

The LUCA included in Attachment A-3 is intended to provide Council with the narrowly tailored code amendment that they requested. The Gap Analysis included in Attachment A-2 provides the best roadmap to the code amendments that were identified by the consultant as mandatory to comply with GMA. Mandated code amendments

recommended by the consultant are identified in the Gap Analysis (Attachment A-2) with action verbs such as “clarify,” “update,” or “revise.” Consultant recommendations made for city “consideration” indicate amendments that are discretionary in nature. The discretionary recommendations were not included in the narrowly tailored CAO update amendments that are proposed for Council consideration and included in Attachment A-3.

II. REVIEW PROCESS

When the City Council initiated this LUCA at its Council meeting on August 1, 2016, the Council also indicated that the required public hearing associated with amendments be held by the City Council in lieu of forwarding to the Planning Commission in order to expedite the amendment process. The LUCA was considered by the Council during the Council’s September 12 Study Session, and the Public Hearing before the City Council is scheduled for October 10. These steps satisfy the requirements for adoption of the proposed LUCA by the City Council, and final action can be taken at any time following the public hearing at the October 10 Extended Study Session.

Following completion of the code amendment process, including a public hearing and adoption of a final resolution by the City Council, the documents will be forwarded to the appropriate state agencies to complete the updates required under SMA and GMA. The code amendment will be transmitted to the Department of Ecology for inclusion in its review and for the public to comment on as part of the SMP Update. The code amendment will also be forwarded to the Washington State Department of Commerce to demonstrate compliance with the GMA to preserve funding eligibility. The CAO Update will be effective after the SMP Update is approved by the Department of Ecology.

III. PUBLIC NOTICE

Notice of the LUCA application was published in the Weekly Permit Bulletin on September 1, 2016. Notice of the Public Hearing and availability of this staff report was published on September 22, 2016.

Critical Areas Ordinances are not subject to approval/disapproval jurisdiction of the East Bellevue Community Council (EBCC). However, they will be briefed regarding the content of the proposed amendment during the October 4 EBCC meeting.

Pursuant to the Washington State Growth Management Act, state agencies must be given 60 days to review and comment on proposed amendments to the Land Use Code. Given the compressed timeframe needed for approval of these amendments to comply with GMA, a copy of the proposed amendment was provided to state agencies, together with a request for expedited review, on September 14, 2016. A copy of the required transmittal to the Washington State Department of Commerce is available for review in the code amendment file.

The balance of this Staff Report analyzes the decision criteria in the Land Use Code that must be met to support adoption of a Land Use Code Amendment.

IV. DECISION CRITERIA

LUC 20.30J.135 establishes the decision criteria for an application to amend the text of the Land Use Code. Those criteria, and the relationship of the proposal to them, are discussed below:

A. The amendment is consistent with the Comprehensive Plan; and

Finding: The Environmental Element of the Comprehensive Plan was amended as a component of the City's Comprehensive Plan Update and adopted by the City Council on August 3, 2015. The Gap Analysis included as Attachment A-2 to this staff report describes the code amendments necessary to ensure consistency between the Critical Areas Overlay and the updated Comprehensive Plan. The code amendments included in Attachment A-3 will ensure that that the Critical Areas Overlay is consistent with the newly updated Environmental Element to the Comprehensive Plan.

B. The amendment enhances the public health, safety or welfare; and

Finding: Consistency between the updated Environmental Element of the Comprehensive Plan and the Critical Areas Overlay will ensure that natural resources in Bellevue are protected. Bellevue's updated Environmental Element of the Comprehensive Plan, and the recommended amendments to ensure consistency between the plan and the regulations, will enhance public health, safety and welfare by minimizing the susceptibility of environmentally sensitive areas to damage. State law requires cities to plan for the protection of environmentally critical areas, such as wetlands and geologically hazardous areas. This consistency amendment will ensure that future development is appropriately regulated to preserve the environmental benefits of critical areas, as well as making sure that development does not occur in areas where environmental hazards exist as envisioned in the updated Comprehensive Plan.

C. The amendment is not contrary to the best interest of the citizens and property owners of the City of Bellevue.

Finding: The amendment is not contrary to the interests of citizens and property owners as it will ensure that the Critical Areas Overlay is consistent with state law mandates included in the Growth Management Act, and that the City's eligibility for grant funding is maintained. The proposed code amendment is the minimum necessary to meet the state law requirement, and also ensures that property owners can rely on buffer modifications memorialized in native growth protection easements and critical areas land use permits approved by the City.

V. STATE ENVIRONMENTAL POLICY ACT

Per Revised Code of Washington paragraph 43.21C.450(1), this LUCA is a nonproject action that is categorically exempt from the requirements of the State Environmental Policy Act (SEPA). Adoption of the proposed LUCA is required to ensure consistency with an adopted comprehensive plan pursuant to RCW 36.70A.040, and the City's Comprehensive Plan Update was previously subjected to environmental review as documented in Resolution No. 9094 adopted by the City Council on May 2, 2016.

VI. RECOMMENDATION

The narrowly tailored LUCA included with this staff report as Attachment A-3 is consistent with the decision criteria required for adoption of a Land Use Code Amendment. The staff recommends that the Land Use Code Amendment be adopted to ensure that the Critical Areas Overlay is consistent with the Comprehensive Plan and the consistency requirements under the Growth Management Act that apply to jurisdictions planning under RCW 36.70A.040.

ATTACHMENTS

- A-1. Best Available Science and Existing Conditions Update
- A-2. Gap Analysis and Addendum
- A-3. Recommended Narrowly Tailored Code Amendment
- A-4. Effects of Proposed CAO Revisions. The Watershed Company. September 21, 2016.

CITY OF BELLEVUE CRITICAL AREAS REGULATIONS TECHNICAL REPORT

Prepared for:



Development Services Department
450 110th Ave. NE
P.O. Box 90012
Bellevue, WA 98009

Prepared by:



750 Sixth Street South
Kirkland, WA 98033

p 425.822.5242
f 425.827.8136
watershedco.com



18300 NE Union Hill Road
Suite 200
Redmond, Washington, 98052

August 2016

The Watershed Company Reference Number: 160349

EXECUTIVE SUMMARY

To comply with Growth Management Act (GMA) mandates, the City of Bellevue is currently in the process of updating its Critical Areas Ordinance. The City last comprehensively updated its critical areas regulations in 2006. To support the City's GMA-mandated Critical Areas Ordinance update, The Watershed Company prepared a two-part technical report, Part 1 – Update to Best Available Science and Existing Conditions, and Part 2 – Gap Analysis. These documents 1) identify relevant science related to management of critical areas since the previous critical areas update, as well as significant changes to existing conditions; and 2) recommend updates to the City's critical area provisions that comply with State guidance and best available science (BAS).

Part 1 – Update to Best Available Science and Existing Conditions

This document provides an update to the body of scientific literature and agency guidance since previous BAS documents were prepared in 2003 (Critical Areas Inventories), 2005 (City of Bellevue's Critical Areas Update- 2005 Best Available Science Review), and 2009 (Bellevue Urban Wildlife Habitat Literature Review). Similarly, updates to existing conditions since the completion of the previous BAS and existing conditions review are addressed where relevant. This updated review of science is intended to build on the existing body of literature, and unless otherwise specified, it does not supersede the previous findings. Findings for streams, wetlands, terrestrial wildlife habitat, frequently flooded areas, and geologic hazard areas are briefly summarized below. The BAS review does not address critical aquifer recharge areas, which are not regulated under the current City of Bellevue code. The Critical Aquifer Recharge Areas Guidance Document was published by the Washington Department of Ecology in January 2005, and it has not been updated since that time.

- Streams and Riparian: Recent BAS generally supports the previous understanding of functions and values of instream habitat and the surrounding riparian area. Key updates to the BAS recognize the significant impacts of untreated stormwater and the effectiveness of stormwater treatment, as well as the importance of non-fish bearing streams to downstream habitat, flow, and water quality conditions. Additionally, new science identifies the significance of culverts that pass all flows and woody debris for maintaining habitat functions in urban settings.
- Wetlands: Primary BAS-based updates to wetland protections include wetland identification and classification based on functions, as well as approaches to calculating and implementing wetland mitigation.
- Terrestrial Habitat and Corridors: The BAS presented in 2009 related to urban wildlife in the City of Bellevue remains pertinent. This section identifies several changes to the designation of species at the state and federal level, and it briefly summarizes state and

federal management recommendations (where they exist) for species of local importance.

- Frequently Flooded Areas (FFAs): Frequently flooded areas (FFA) are managed to reduce potential risks to public safety. FFAs can also provide valuable instream habitat benefits, such as low-velocity instream habitat during high-flow events. To comply with the conditions of the 2008 FEMA Biological Opinion and incorporate BAS on FFA functions, floodplain habitat assessments are required in addition to standard flood safety measures for projects within floodplains.
- Geological Hazard Areas: This section addresses recent updates in the understanding of seismic hazard areas and the extent and potential threat associated with toe runout below landslide hazard areas. The significance of the issue of toe runout distances became clear following the Oso landslide in 2014.

Part 2 – Gap Analysis reviews the existing critical areas regulations and identifies areas of the code that should be updated to be consistent with science-based recommendations. Recommendations in the gap analysis are based on a review of the GMA requirements, the BAS review (Part 1), and current critical area regulations (Bellevue Land Use Code (LUC) Part 20.25H). Critical area regulations will need to align with BAS practices, and any deviations from BAS recommendations must be documented and justified. In general, recommendations based on BAS-based guidance from the Department of Ecology are fairly prescriptive, whereas recommendations from primary BAS literature allow for more flexibility in interpretation of policy implications and application to revising City code. Recommendations for the City of Bellevue’s critical areas code update are summarized in brief below.

- Designation of Critical Areas and Dimensional Standards: Discrepancies are noted between the language used in the recently adopted Comprehensive Plan and the description of critical areas in Part 20.25H. We recommend clarifying the designation of critical areas to ensure consistency with the Comprehensive Plan and state law.
- Streams: In order to maximize consistency with state practices, we propose considerations related to the Permanent and Interim Water Typing System and the location from which to measure stream buffers. Based on the science identifying the significance of stormwater treatment, the City should require that stormwater treatment and low impact development measures are implemented.
- Wetlands: Wetland delineation criteria need to be based on the federal manual and regional supplement to align with Washington Administrative Code (WAC) 173-22-035. Wetland classifications should be based on the current 2014 Wetland Rating System for Western Washington (Ecology publication #14-06-029). The City should consider how and when to allow use of the credit/debit tool, mitigation banking, and in-lieu fee programs.

- Geologic Hazard Areas: Based on the updated understanding of toe-runout distance risks following the Oso landslide, the city should revise the toe-of-slope setback to account for site-specific conditions in landslide hazard areas. The City should also designate areas of high seismic hazard as critical areas.
- Habitat Associated with Species of Local Importance: State and federal listing of sensitive, threatened, and endangered terrestrial species have changed since the last critical areas update. The City should consider adopting the State's priority species list as species of local importance to ensure that suite of species protected by City regulations are consistent with the most up-to-date conditions and scientific understanding.
- Frequently Flooded Areas: A 2008 Biological Opinion required cities enrolled in the National Flood Insurance Program to ensure regulatory standards that protect the habitat value of floodplains for threatened salmonids and southern resident killer whales. The City should update its code standards for frequently flooded areas to describe when a floodplain habitat assessment is required and the necessary components of such an assessment.

CITY OF BELLEVUE CRITICAL AREAS REGULATIONS TECHNICAL REPORT-PART 1

Update to Best Available Science and Existing Conditions

Prepared for:



Development Services Department
450 110th Ave. NE
P.O. Box 90012
Bellevue, WA 98009

Prepared by:



750 Sixth Street South
Kirkland, WA 98033
p 425.822.5242
f 425.827.8136
watershedco.com



18300 NE Union Hill Road
Suite 200
Redmond, Washington, 98052

August 2016

The Watershed Company Reference Number: 160349

TABLE OF CONTENTS

	Page #
1 Introduction.....	1
2 Streams and Riparian Areas.....	1
2.1 Updates to Best Available Science for Protection of Functions and Values	
1	
2.1.1 Urbanization and Streams	2
2.1.2 River Continuum.....	3
2.1.3 Sediment.....	3
2.1.4 Nutrients	5
2.1.5 Large Woody Debris.....	7
2.1.6 Temperature.....	7
2.1.7 Invertebrates	7
2.1.8 Stream Typing.....	8
2.1.9 Summary of the Implications of the BAS Update to the Management of Streams 8	
2.2 Updates to Existing Conditions	9
2.2.1 Basin conditions.....	9
2.2.2 Water quality and Flow.....	9
3 Wetlands	10
3.1 Updates to Best Available Science for Protection of Functions & Values	
3.1.1 Identification and Classification	10
3.1.2 Wetland Buffers	11
3.1.3 Mitigation Sequencing	11
3.1.4 Compensatory Mitigation.....	12
3.1.5 Assuring Mitigation Success	17
3.2 Updates to Existing Conditions	17
4 Terrestrial Habitat and Corridors	19
4.1 Updates to Best Available Science for Protection of Functions and Values	
19	
4.1.1 Urban Wildlife Habitat	19
4.1.2 Endangered, Threatened, or Sensitive Species, Species of Local Importance	20
4.1.3 State and Federal Species-specific Management Recommendations.....	22
4.2 Updates to Existing Conditions	26
5 Frequently Flooded Areas	27
5.1 Update to Best Available Science for Protection of Functions and Values	
27	
5.2 Updates to Existing Conditions	28
6 Geologic Hazard Areas	30

6.1	Updates to Best Available Science for Protection of Functions and Values	30
6.2	Updates to Existing Conditions	32
7	Critical Aquifer Recharge Areas	32
8	Shorelines	32
9	References	33
9.1	General	33
9.2	Streams and Riparian Areas.....	33
9.3	Wetlands.....	38
9.4	Terrestrial Habitat and Conditions.....	40
9.5	Frequently Flooded Areas	42
9.6	Geologic Hazard Areas	43
9.7	Critical Aquifer Recharge Areas	44
10	Acronyms and Abbreviations.....	44

LIST OF FIGURES

Figure 2.1.	Sediment trapping efficiency related to soil type, slope, and buffer width. (Figure from Dosskey et al. 2008).	5
Figure 3.1.	Map of wetlands in the City of Bellevue (data from USFWS and City of Bellevue).....	18
Figure 3.2.	Relative density of hydrogeomorphic features, wetlands and undeveloped floodplains, within the city of Bellevue using the Puget Sound Watershed Characterization Tool.	19
Figure 4.1.	Terrestrial Open Space Blocks in City of Bellevue.....	27
Figure 5.1	Map showing currently effective (Q3) and preliminary (DFIRM) floodplain mapping.	29

LIST OF TABLES

Table 3-2.	Ecology Recommended Mitigation Ratios (Granger et al. 2005)*	13
Table 4-1	Species of Local Importance per LUC 20.25H.150.....	20
Table 4-2.	Great blue heron recommended management zones from Azerrad 2012	24

LIST OF FIGURES

Figure 1	Diagram illustrating the structure of the data set.
Figure 2	Diagram illustrating the structure of the data set.
Figure 3	Diagram illustrating the structure of the data set.
Figure 4	Diagram illustrating the structure of the data set.
Figure 5	Diagram illustrating the structure of the data set.
Figure 6	Diagram illustrating the structure of the data set.
Figure 7	Diagram illustrating the structure of the data set.
Figure 8	Diagram illustrating the structure of the data set.
Figure 9	Diagram illustrating the structure of the data set.
Figure 10	Diagram illustrating the structure of the data set.

LIST OF TABLES

Table 1	Summary of the data set.
Table 2	Summary of the data set.
Table 3	Summary of the data set.
Table 4	Summary of the data set.
Table 5	Summary of the data set.
Table 6	Summary of the data set.
Table 7	Summary of the data set.
Table 8	Summary of the data set.
Table 9	Summary of the data set.
Table 10	Summary of the data set.

1 INTRODUCTION

With passage of the Growth Management Act (GMA), local jurisdictions throughout Washington State (State), including the City of Bellevue (City), were required to develop policies and regulations to designate and protect critical areas. Critical areas, as defined by the GMA (Revised Code of Washington [RCW 36.70A.030(5)]), include wetlands, areas with a critical recharging effect on aquifers used for potable water, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas. The GMA directs jurisdictions to periodically conduct a thorough review and update their Comprehensive Plan and regulations (RCW 36.70A.130). When updating critical areas policies and regulations, jurisdictions must include the best available science (BAS). Any deviations from science-based recommendations should be identified, assessed and explained (Washington Administrative Code [WAC] 365-195-915). In addition, jurisdictions are to give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

The City of Bellevue last comprehensively updated its critical areas regulations in 2006. This report provides an overview of the science relevant to the functions and values of wetlands, streams, wildlife habitat, and geologic hazards completed since the last comprehensive review. In addition to the summary of BAS-based recommendations, new information on the location, extent, and general conditions of existing critical areas in the City of Bellevue was investigated, and is reported, where available. Information presented in the *City of Bellevue- 2005 BAS Review* and 2003 critical areas inventory reports continues to provide the scientific basis and environmental setting upon which conservation measures are generally based. Rather than reiterate that scientific basis here, this report relies on the understanding conveyed in the earlier reports and highlights additional scientific research and findings, as well as new agency guidance since 2005.

This report is the first of a two-part technical report. Part 2-Gap Analysis reviews the existing critical areas regulations and identifies areas of the code that should be updated to be consistent with science-based recommendations.

2 STREAMS AND RIPARIAN AREAS

2.1 Updates to Best Available Science for Protection of Functions and Values

The recent scientific literature supports and builds on the *City of Bellevue- 2005 BAS Review* document. As noted above, the following discussion is not intended to supersede the previous BAS reports, but rather to identify additional information that builds on the existing understanding. This new information may provide a more nuanced understanding of specific functions and values of streams and riparian areas.

2.1.1 Urbanization and Streams

The *City of Bellevue- 2005 BAS Review* summarized the role of natural disturbances in maintaining stream functions and a diversity of habitats. It also noted that disturbances associated with human activities tend to reduce habitat diversity. In recent years, the interactions between urbanization and hydrology have been further investigated. Urban land cover is correlated with increased high flows, increased variability in daily streamflow, reduced groundwater recharge, and reduced summer low flow conditions (Konrad and Booth 2005, Cuo et al. 2009). Changes in hydrology related to development are generally associated with soil compaction, draining, and ditching across the landscape, increased impervious surface cover, and decreased forest cover (Moore and Wondzell 2005).

In addition to effects on hydrology, significant, new research has helped clarify the ecological effects of stormwater and wastewater discharges. Heavy metals, bacterial pathogens, as well as PCBs, hydrocarbons and endocrine-disrupting chemicals are aquatic contaminants that are commonly associated with urban land uses. Although all metals can be toxic at high concentrations, cadmium, mercury, copper, zinc, and lead are particularly toxic even at low concentrations. Chronic and acute exposure to heavy metals have been found to impair, injure, and kill to aquatic plants, invertebrates, fish, and particularly salmonids (Dethier 2006, Hecht et al. 2007, McIntyre et al. 2008, Baldwin et al. 2011, McIntyre et al. 2012). In general, heavy metals and hydrocarbons are found in road runoff, and these contaminants can reach the City's streams directly through existing stormwater systems. Stormwater systems that circumvent buffers limit the opportunity to filter runoff through adjoining soils and vegetation. Accordingly, stream buffers are typically underutilized for treatment of hydrocarbons and other pollutants found in typical stormwater runoff.

Recent research in the Puget Sound region has identified mature coho salmon that return to creeks and die prior to spawning, a condition called pre-spawn mortality (Feist et al. 2011, Scholz et al. 2011, Spromberg et al. 2015). The condition is linked to urbanized watersheds and is positively correlated with the relative proportion of roads, impervious surfaces, and commercial land cover within a basin (Feist et al. 2011). Pre-spawn mortality was first documented in Bellevue streams in 2000 (City of Bellevue 2016). Between 2000 and 2014, rates of pre-spawn mortality in Kelsey Creek ranged from zero to 100 percent (City of Bellevue 2016). An experimental release of adult coho salmon into Kelsey and Coal Creeks indicated that spawning success was markedly lower in Kelsey Creek (0-0.3% success) compared to Coal Creek (22-41% success) (City of Bellevue 2016).

Recent evidence indicates that some component of untreated road runoff causes pre-spawn mortality, as well as other lethal and sub-lethal effects to juvenile salmonids (McIntyre 2015, Spromberg 2015). Based on a model of the effects of pre-spawn mortality on coho salmon populations, depending on future rates of urbanization, localized extinction of coho salmon populations could occur within a matter of years to decades (Spromberg and Scholz 2011). Recent studies have found that biofiltration of urban stormwater prevents sub-lethal and lethal effects of urban stormwater in juvenile salmon and prevents pre-spawn mortality in coho

salmon (McIntyre et al. 2015, Spromberg et al. 2015). These findings point to the critical function of effective riparian buffers, and where that is not possible, the use of green stormwater infrastructure to filter urban runoff.

In summary, urbanization and urban infrastructure can significantly affect stream habitat, water quality, and aquatic life. Low impact development measures that limit impervious surfaces and encourage infiltration of precipitation can effectively help to counteract these impacts. The City of Bellevue is taking several steps to encourage low impact development and retrofits that improve stormwater runoff. These measures include the development of the Natural Drainage Practices Maintenance Guidelines (2009), the Storm and Surface Water System Plan (City of Bellevue 2016) and the Low Impact Development Principles Project, and revision of the Phase II National Pollutant Discharge Elimination System (NPDES) permit (due in December 2016) to require use of low impact development where feasible.

2.1.2 River Continuum

The *City of Bellevue- 2005 BAS Review* presented the River Continuum concept, which describes various functions and characteristics of rivers, ranging from headwater streams to large rivers. Since the *City of Bellevue- 2005 BAS Review*, several studies have further investigated the River Continuum concept and the significance of non-fish bearing streams and hydrologic source areas, where runoff converges and groundwater rises to form surface water drainageways.

Riparian areas associated with headwater streams produce significant quantities of invertebrates (Wipfli 2005, Wipfli et al. 2007) that are transported downstream to fish-bearing waters. In many cases, small, intermittently flowing channels are productive rearing areas for juvenile salmonids (e.g., Wigington et al. 2006, Colvin et al. 2009).

Hydrologic changes from development are expected to be most significant in small- to intermediate-sized streams with naturally low seasonal and storm flow variability (Konrad and Booth 2005). Qiu et al. (2009) and Tomer et al. (2009) modeled the effects of protecting these hydrologic source areas related to water quality. Because increased surface water flows are responsible for the increased transport of pollutants, they found that buffers were most effective in maintaining water quality conditions in watersheds where these hydrologic source areas were protected in riparian buffers.

Longitudinal continuity of buffers along streams is also an important factor determining the effectiveness of buffers at improving channel conditions. Riparian continuity is correlated with abundance and diversity of sensitive invertebrates (Wooster and DeBano 2006) and metrics of physical stream conditions (McBride and Booth 2005). A watershed-scale study in Southwest Washington found that stream conditions were best maintained with continuous buffers, compared to patch buffers or no buffers (Bisson et al. 2013).

2.1.3 Sediment

As described in the *City of Bellevue- 2005 BAS Review*, fine sediment adversely affects stream habitat by filling pools, embedding gravels, reducing gravel permeability and increasing

turbidity. Upland clearing and grading can result in long-term increases in fine sediment inputs to streams (Gomi et al. 2005). Numerous studies have investigated the effectiveness of varying widths of buffers at filtering sediment, typically finding high sediment filtration rates in relatively narrow buffer areas (reviewed in Yuan et al. 2009).

It is significant to note, however, that many of these studies occur in laboratory or field plot experiments, which tend to have much shorter field lengths (hillslope length contributing to drainage) than would be encountered in real-world scenarios (*i.e.*, ~5:1 ratio of field length to riparian width for a field plot compared to 70:1 ratio in NRCS guidelines). Since water velocities tend to increase with field length, field plot experiments may suggest better filtration than would be encountered under real-world conditions. Additionally, field-scale experiments generally do not account for flow convergence, which reduces sediment retention (Helmerts et al. 2005) or for stormwater components that bypass filter strips through ditches, stormwater infrastructure, and roads (Verstraeten et al. 2006). Therefore, the effectiveness of filter strips at filtering sediment under real-world conditions and at the catchment scale is likely to be lower than what is reported in field plot experiments.

In addition to width, the slope, vegetation density, and sediment composition of a riparian area have significant bearing on sediment filtration potential. A recent model of sediment retention in riparian zones found that a grass riparian zone as small as 4 m (13 ft) could trap up to 100% of sediment under specific conditions (2% hillslope over fine sandy loam soil), whereas a 30 m (98 ft) grass riparian zone would retain less than 30% of sediment over silty clay loam soil on a 10% hillslope (Dosskey et al. 2008, Figure 2.1). This study exemplifies the effects that soil type and hillslope have on sediment retention.

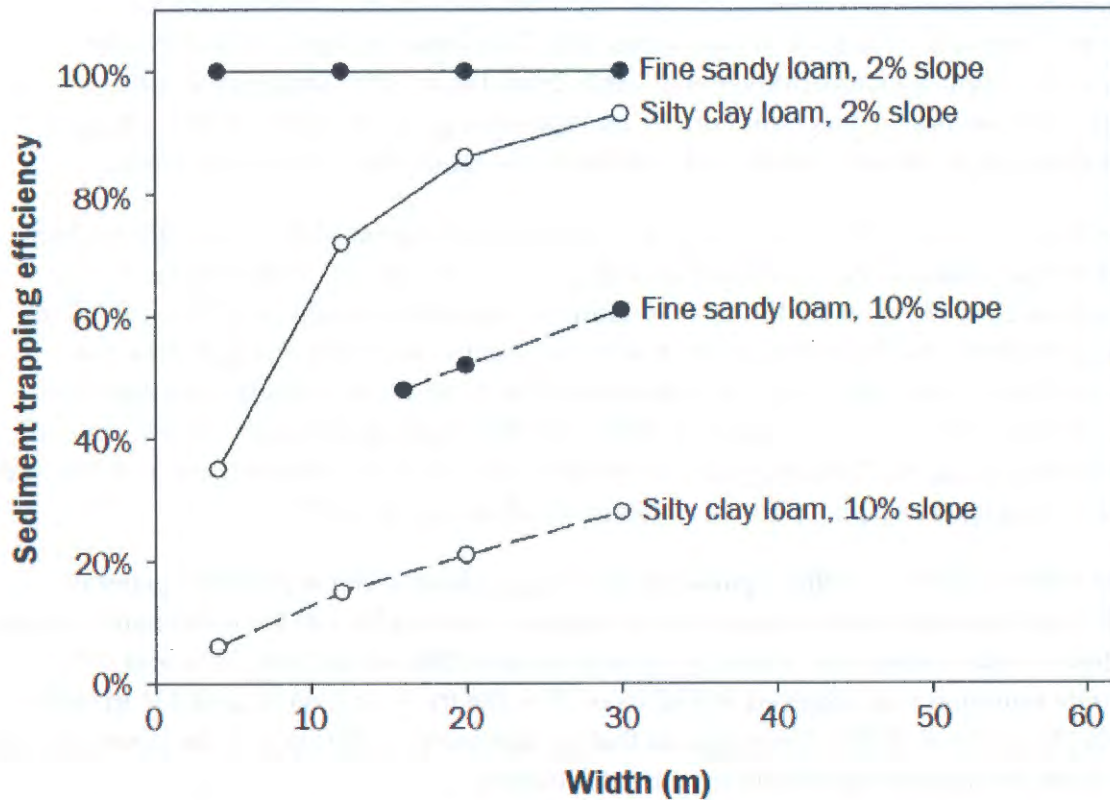


Figure 2.1. Sediment trapping efficiency related to soil type, slope, and buffer width. (Figure from Dosskey et al. 2008).

Vegetative composition within the buffer also affects sediment retention. Vegetation tends to become more effective at sediment and nutrient filtration several years after establishment (Dosskey et al. 2007). Dosskey et al. (2007) did not find a significant difference between the filtration effectiveness of established grass and forested buffers. However, a meta-analysis of 81 buffer studies indicated that all-grass and all-forest buffers tend to more effectively filter sediment compared to buffers with a mix of grass and forested vegetation (Zhang et al. 2010). Additionally, whereas thin-stemmed grasses may become overwhelmed by overland flow, dense, rigid-stemmed vegetation provides improved sediment filtration that is expected to continue to function better over successive storm events (Yuan et al. 2009).

2.1.4 Nutrients

As described in the *City of Bellevue- 2005 BAS Review*, in excess concentrations, nitrogen and phosphorus can lead to poor water quality conditions, including reduced dissolved oxygen rates, increased pH, and eutrophication (Mayer et al. 2005, Mayer et al. 2007)). Excessive amounts of nitrogen and phosphorus speed up eutrophication and algal blooms in receiving waters, which can deplete the dissolved oxygen in the water and result in poor water quality and fish kills (Mayer et al. 2005, Dethier 2006, Heisler et al. 2008). Riparian zones can reduce nitrogen pollution through nutrient uptake, assimilation by vegetation, and through denitrification (Sobota et al. 2012).

The rate of nitrogen removal from runoff varies considerably depending on local conditions, including soil composition, surface versus subsurface flow, riparian zone width, riparian composition, and climate factors (Mayer et al. 2005, Bernal et al. 2007, Mayer et al. 2007). Nutrient assimilation is also dependent on the location of vegetation relative to the nitrogen source, the flowpath of surface runoff, and position in the landscape (Baker et al. 2006).

A meta-analysis of studies of nutrient removal in riparian buffers ranging from 1-200 m (3-656 ft) concluded that buffers wider than 50 m (164 ft) remove nitrogen more effectively than buffers less than 25 m (82 ft) wide; however, within the categories of 0-25 m (0-82 ft), 25-50 m (82-164 ft), and >50 m (164 ft), factors other than buffer width determine nitrogen removal effectiveness (Mayer et al. 2007). Riparian zones less than 15 m (49 ft) actually contributed to nitrogen loading in some cases (Mayer et al. 2007). Another meta-analysis of nutrient removal studied buffers up to 22 m (72 ft) wide, and found that these buffers effectively removed 92 and 89.5 percent of nitrogen and phosphorus, respectively (Zhang et al. 2010).

Mayer et al. (2005, 2007) found that riparian zones ranging from 1-200 m (3-656 ft) generally removed 89% of *subsurface* nitrates regardless of riparian zone width. On the other hand, nitrate retention from *surface* runoff was related to riparian zone width, where 50%, 75%, and 90% surface nitrate retention was achieved at widths of 27 m (88 ft), 81 m (266 ft), and 131 m (430 ft) respectively (Mayer et al. 2007). This suggests that surface water infiltration in the riparian zone should be a priority to promote effective nutrient filtration.

The composition of the riparian zone also affects the efficiency of nutrient removal. Reviews of buffer effectiveness have found that forested riparian zones remove nitrogen and phosphorus more efficiently than grass/forested riparian zones (Zhang et al. 2010). And Mayer et al. (2007) found that herbaceous buffers had the lowest effectiveness compared to forested wetland, forested, and forested/herbaceous buffers. Other studies have found conflicting results, indicating that grass buffers remove nitrogen and phosphorus as well or better than forested buffers (reviewed in Polykov 2005). These findings indicate that the nitrogen removal efficiency of buffers can vary depending on the size and species composition of the buffer.

Removal of phosphorus by riparian buffers is dependent on the form of phosphorus entering the buffer. Whereas phosphorus that is adsorbed by soil particles is effectively removed through sediment retention within a buffer, the retention of soluble phosphorus relies on infiltration and uptake by plants (Polyakov et al. 2005). One long-term study found that phosphorus uptake was directly proportional to the plant biomass production and root area over the four-year study period (Kelly et al. 2007). If a riparian buffer becomes saturated with phosphorus, its capacity for soluble phosphorus removal will be more limited (Polyakov et al. 2005). Another long-term study found that following a 15-year establishment period, a 40-meter (131 ft) wide, three-zoned buffer reduced particulate phosphorus by 22 percent, but dissolved phosphorus exiting the buffer was 26 percent higher than the water entering the buffer, so the buffer resulted in no net effect on phosphorus (Newbold et al. 2010).

In summary, most riparian zones reduce subsurface nutrient loading, but extensive distances are needed to reduce nutrients in surface runoff. Filtration capacity decreases with increasing loads (Mayer et al. 2005), so best management practices across the landscape that reduce nutrient loading will improve riparian function.

2.1.5 Large Woody Debris

The science discussed in the *City of Bellevue- 2005 BAS Review* related to large woody debris is still relevant today. Roni et al. (2014) summarized the scientific understanding of the effectiveness of placed wood. A 2007 report presented information on the large wood loading densities in unmanaged streams in Washington State (Fox and Bolton 2007). The study found that the bankfull width of a stream was the most predictive indicator of wood volume and the overall density of wood. The authors recommended that streams in a degraded state (e.g., below the median) should be managed to meet or exceed the wood loading densities of the 75th percentile of unmanaged streams of a similar bankfull width and geographic position.

A 2012 study by Lassetre and Kondolf identified issues with retaining large wood in urban streams. They found that large wood is often removed from urban streams to address flooding and road maintenance issues. As culverts are replaced, resizing them to allow passage of flood flows and woody debris, consistent with the Washington Department of Fish and Wildlife's 2013 Water Crossing Design Guidelines, should help to allow more large woody debris to be retained in urban stream systems.

2.1.6 Temperature

Building on the science discussed in the *City of Bellevue- 2005 BAS Review*, several studies have documented significant increases in maximum stream temperatures associated with the removal of riparian vegetation (e.g., Moore et al. 2005, Gomi et al. 2006, Pollock et al. 2009).

Two studies in the Pacific Northwest considering the effects of partial forest retention on microclimate found that retention of 15 percent of a forest basal area was not sufficient to maintain microclimate conditions (Heithecker and Halperin 2006, Aubry et al. 2009); however, 40 percent basal area retention resulted in cooler mean air temperatures than clearcut conditions and light conditions similar to an undisturbed forest (Heithecker and Halperin 2006). This indicates that moderate forest cover is necessary to maintain forest microclimate conditions.

2.1.7 Invertebrates

The *City of Bellevue- 2005 BAS Review* noted that aquatic invertebrates are sensitive to water quality, flows, and habitat structure, and they are often considered as indicators of stream habitat conditions (Utz et al. 2009). Hydrologic changes associated with basin and subbasin development have been correlated to degraded indices of invertebrate community integrity (DeGasperi et al. 2009). DeGasperi et al. (2009) proposed that the frequency and range of flood pulses may best explain the correlation between the hydrologic effects of urbanization and the observed degradation of invertebrate communities. Utz et al. (2009) reported that sensitive aquatic invertebrates were not present when impervious cover was in the range of 3 to 23

percent, and the sensitivity of invertebrates to impervious surface cover varied with hydrogeomorphic factors.

Although urbanization at a sub-basin scale is correlated with a reduction in sensitive invertebrate species, those urbanized sub-basins with intact riparian buffers along the longitudinal stream gradient maintain a higher proportion of sensitive species compared to those without vegetated riparian corridors (Walsh et al. 2007, Shandas and Alberti 2009).

2.1.8 Stream Typing

The *City of Bellevue- 2005 BAS Review* referenced the permanent statewide water typing system (WAC 222-16-030), which remains the recommended statewide water typing approach. The *City of Bellevue- 2005 BAS Review* described all non-fish-bearing waters as "Type N." Today, however, the permanent water typing system differentiates between perennial (Type Np) and seasonal (Type Ns) non-fish-bearing streams. The permanent water typing system was intended to be used where stream type mapping is available. DNR water typing has been mapped for most streams in Bellevue (<https://fortress.wa.gov/dnr/protectiongis/fpamt/default.aspx>); however, some streams are mapped as "unknown" and other streams may not be mapped at all.

In addition to the WAC definition under the permanent statewide water typing system, the state has also established interim statewide water typing system (WAC 222-16-031) intended to apply before water type mapping is complete. The interim stream typing criteria provide additional physical criteria that help to establish whether a stream is likely to be fish-bearing or perennial.

2.1.9 Summary of the Implications of the BAS Update to the Management of Streams

The range of buffer widths for stream protection presented in the *City of Bellevue- 2005 BAS Review* remain valid based on the current review of literature. The updated literature review suggests additional emphasis on the following management considerations:

- Low impact development, with an emphasis on infiltration can help reduce, and in some cases eliminate, significant adverse effects of urban land uses on flows, habitat, water quality, and aquatic life.
- Protection of hydrologic source areas, including intermittent and non-fish bearing streams, as well as headwater wetlands, is particularly significant for protecting downstream habitat and water quality functions.
- Buffer effectiveness varies depending on site-specific conditions, including slope, sediment, and site topography.
- The most effective buffers are densely vegetated to promote infiltration, nutrient uptake, resist erosion.
- Infrastructure improvements that replace culverts with those that meet current Washington Department of Fish and Wildlife (WDFW) guidelines are expected to

improve instream habitat by allowing more large woody debris to remain in urban streams.

2.2 Updates to Existing Conditions

The Final Storm and Surface Water System Plan (SSWSP)(City of Bellevue 2016, including appendices) provides an extensive and up-to-date description of existing conditions relating to both water quality and habitat in the City's streams. That document should be referenced for a summary of existing conditions relative to surface waters in the City of Bellevue. Highlights from that document are summarized below.

2.2.1 *Basin conditions*

The SSWSP reports that as of 2008, 46 percent of the total area in Bellevue was impervious and that in 2007, 36 percent of the total area of the City was tree canopy. Tree canopy cover in the city decreased 20 percent between 1986 and 2006. American Forests recommends a city-wide goal of 40 percent tree canopy in urban areas to maintain environmental benefits (2008). Basins that currently meet the American Forests recommendation of 40 percent tree canopy include Beaux Arts, Coal Creek, Goff Creek, Lewis Creek, Mercer Slough, North Sammamish, Phantom Creek, South Sammamish, Vasa Creek, and Yarrow (City of Bellevue 2016).

In general, tree canopy is higher and impervious area lower adjacent to streams than in the overall drainage basin. This difference is likely associated with critical area requirements for buffers along streams.

2.2.2 *Water quality and Flow*

Nine stream segments, two Lake Washington sampling sites, and two Lake Sammamish sampling sites are listed as impaired per the Ecology's 2012 water quality assessment. Streams were rated as impaired due to high fecal coliform bacteria counts, high water temperatures, and/or low dissolved oxygen.

In addition to chemical parameters, a rating system known as the Benthic Index of Biotic Integrity (B-IBI) can be used to assess long-term stream conditions. In Bellevue, 36 sites were sampled for B-IBI ratings between 1998 and 2014. The most recent B-IBI scores show 46 percent of all Bellevue sites ranked as poor and 25 percent ranked as very poor (City of Bellevue). These ratings are similar to other urban sites sampled in the Puget Sound lowlands.

The intensity and frequency of peak flows in Kelsey Creek have increased as Bellevue has become more urbanized (City of Bellevue 2016).

3 WETLANDS

3.1 Updates to Best Available Science for Protection of Functions & Values

3.1.1 Identification and Classification

Per WAC 173-22-035, wetland delineations shall be conducted in accordance with the federal wetland delineation manual and applicable regional supplements. The U.S. Army Corps of Engineers (Corps) Wetland Delineation Manual (Corps 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region Version 2.0* (Regional Supplement) (Corps May 2010) should be the applied methodology.

The Washington Department of Ecology (Ecology) Washington State Wetland Rating System is the most commonly used and regionally accepted wetland classification system. This rating system was last updated in June 2014 (Hruby 2014; Ecology Publication No. 14-06-019). It is a four-tier wetland rating system, which grades wetlands on a points-based system in terms of functions and values. Ecology specifically developed this tool to allow for relatively rapid wetland assessment while still providing some scientific rigor (Hruby 2004). This rating system incorporates other classification elements, such as Cowardin (Cowardin et al. 1979), hydrogeomorphic) classifications (Brinson 1993), and special characteristics such as bogs and mature forests. As described in the Ecology Rating System guidance: "This rating system was designed to differentiate between wetlands based on their sensitivity to disturbance, their significance, their rarity, our ability to replace them, and the functions they provide" (Hruby 2004, Hruby 2014). The rationale for each wetland category under the Ecology Rating System is described below.

- Category I: These are the most unique or rare high-functioning wetland types that are highly sensitive to disturbance and/or relatively undisturbed wetlands with functions that are impossible to replace in a human lifetime.
- Category II: These wetlands are high functioning and difficult, though not impossible, to replace, and provide a high level of some functions.
- Category III: These wetlands provide a moderate level of functions and can often be adequately replaced with a well-planned mitigation project. They have generally been disturbed in some way and are characterized by landscape fragmentation and less diversity.
- Category IV: These wetlands are low functioning and can be replaced or improved. They are characterized by a high level of disturbance and are often dominated by invasive weedy plants.

Wetland categorization provides an important tool for managing impacts. "The intent of the rating categories is to provide a basis for developing standards for protecting and managing the wetlands. Some decisions that can be made based on the rating include the width of buffers

needed to protect the wetland from adjacent development and permitted uses in, and around, the wetland” (Hruby 2014).

3.1.2 Wetland Buffers

The synthesis of science review for buffers was re-evaluated by Ecology in 2013 (Hruby 2013). Most of the conclusions from the 2005 literature review are still valid (Sheldon et al. 2005; Hruby 2013). The primary conclusions of the 2013 review are as follows.

- Wetland buffer effectiveness at protecting water quality varies in conjunction with several factors, including width, vegetation type, geochemical and physical soil properties, source and concentration of pollutants, and path of surface water through the buffer.
- Wider buffers are generally higher functioning than narrower buffers.
- Depending on site-specific environmental factors, different buffer widths may be needed to achieve the same level of protection.
- To protect wetland-dependent wildlife, a broader landscape-based approach that considers habitat corridors and connections is necessary.
- Many animals, particularly native amphibians, require undisturbed upland habitats for their survival (Hruby 2013).

As noted above, the Wetland Rating System was developed to categorize wetlands in accordance with the level of sensitivity and significance, and the categories may be used as a tool to assign appropriate buffer widths. For example, it is appropriate to provide the greatest buffer protection for the highest functioning wetlands that are most difficult to replace. In addition, because habitat protection requires the large buffers to protect the most vulnerable and sensitive species, those wetlands with higher habitat scores warrant wider buffers. On the other hand, lower functioning wetlands with low habitat scores typically primarily support water quality functions, and buffers at the smaller end of the range would tend to provide adequate protection for those functions. Buffers at the smaller end of the scale may be appropriate for small, structurally simple wetlands, with fragmented landscape connections resulting from adjacent development in the city.

Based on the above type of rationale, Ecology developed recommended buffer width management strategies in Appendix 8-C of Wetlands in Washington State, Volume 2 – Protecting and Managing Wetlands (Granger et al. 2005). Hruby’s 2013 literature review of wetland buffer science did not prompt any new buffer width recommendations, although Ecology has updated its buffer width recommendations to correspond with the current outputs of the Wetland Rating System for Western Washington (Hruby 2014).

3.1.3 Mitigation Sequencing

To bolster protection of our national wetland resources, no net loss policy was adopted in 1988 and has been upheld through the present administration. The no net loss policy requires a balance between wetland loss due to development and wetland mitigation to prevent further

loss of the country's total wetland acreage. In 2008, the U.S. Environmental Protection Agency (EPA) issued the Wetlands Compensatory Mitigation Rule. This rule emphasizes BAS to promote innovation and focus on results.

Wetland mitigation is typically achieved through a series of steps known as mitigation sequencing, a sequence of steps taken "to reduce the severity of an action or situation" (Ecology et al. 2006). Ecology recommends that the CAO contain clear language regarding mitigation sequencing. The mitigation sequence according to the implementing rules of the State Environmental Policy Act (SEPA) (Chapter 197-11-768 WAC) follows:

- (1) Avoiding the impact altogether by not taking a certain action or parts of an action;
- (2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
- (3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- (4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
- (5) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or
- (6) Monitoring the impact and taking appropriate corrective measures.

3.1.4 Compensatory Mitigation

Per Ecology, compensatory mitigation should replace lost or impacted wetland and buffer functions, unless out-of-kind mitigation can meet formally identified goals for the watershed. Ecology recommends prioritizing mitigation actions, location(s), and timing. Following mitigation sequencing, after demonstrating that a proposed wetland impact is unavoidable and has been minimized to the extent practical, compensatory mitigation is required by local, state and federal agencies. In general order of preference the agencies recommend wetland compensation in the form of: 1) re-establishment or rehabilitation, 2) creation (establishment), 3) enhancement, and 4) preservation (WDOE et al. 2006).

Wetland re-establishment or rehabilitation occurs when a historic or degraded wetland is returned to a naturally higher functioning system through the alteration of physical or biologic site characteristics. Re-establishment is typically achieved by restoring wetland hydrology; this may include removing fill or plugging ditches. Re-establishment achieves a net gain of wetland acres. Rehabilitation is achieved by repairing or restoring historic functions in a degraded wetland. Restoring a floodplain connection to an existing wetland by breaching a dike is an example of rehabilitation. Rehabilitation does not result in new wetland area.

Wetland creation is the development of a wetland at a site where a wetland did not naturally exist. Proximity to a reliable water source and landscape position are key design requirements for successful wetland creation (WDOE et al. 2006).

Both wetland enhancement and preservation result in a net loss of wetland acreage. Wetland enhancement typically increases structural diversity within a wetland, thus improving functions, or quality. Preservation of high functioning wetland systems in danger of decline may also be proposed as mitigation. While enhancement and preservation do not increase wetland acreage, these actions may result in long-term functional gains (WDOE et al. 2006).

3.1.4.1 Mitigation Ratios

Mitigation ratios are intended to replace lost functions and values stemming from a proposed land use while also accounting for temporal losses. Mitigation ratios recommended by Ecology in 2005 for wetland impacts can be found in Table 3-2 below. As noted above, the Corps and Ecology have a mandate to maintain “no net loss” of wetlands. Wetland creation and restoration are preferable to enhancement alone because wetland enhancement does not replace wetland area, and therefore, enhancement alone would result in a loss of wetland area. Ecology guidance does allow for enhancement as sole compensation for wetland impacts at quadruple the standard ratio (Granger et al. 2005). The higher ratios for enhancement-only are intended to encourage actions that maintain existing wetland acreage and to ensure sufficient area of enhancement to retain wetland functions and values when a net loss of wetland acreage results.

Table 3-2. Ecology Recommended Mitigation Ratios (Granger et al. 2005)*

Category and Type of Wetland Impacts	Creation	Re-establishment-Rehabilitation Only	Creation and Rehabilitation	Creation and Enhancement	Enhancement Only
Category IV	1.5:1	3:1	1:1 C and 1:1 RH	1:1 C and 2:1 E	6:1
Category III	2:1	4:1	1:1 C and 2:1 RH	1:1 C and 4:1 E	8:1
Category II	3:1	6:1	1:1 C and 4:1 RH	1:1 C and 8:1 E	12:1
Category I: Forested	6:1	12:1	1:1 C and 10:1 RH	1:1 C and 20:1 E	24:1
Category I: Bog	Not possible	6:1 RH of a bog	Not possible	Not possible	Case-by-case
Category I: based on total functions	4:1	8:1	1:1 C and 6:1 RH	1:1 C and 12:1 E	16:1 E

*This document, Appendix 8-C of *Wetlands in Washington State, Volume 2 – Protecting and Managing Wetlands* (Granger et al. 2005).

Legend: C = Creation, RH = Rehabilitation, E = Enhancement

3.1.4.2 Credit-Debit Method

To give regulators and applicants a functions-based alternative to set mitigation ratios, the Washington State Department of Ecology recently developed a tool called the credit-debit method. This method, like the Ecology wetland rating form, is a peer reviewed rapid assessment tool. The credit-debit approach may be used to calculate functional gain of the proposed mitigation and functional loss due to proposed wetland impacts. This generates acre-

points that can be compared in a balance sheet. Depending on specific site conditions, this may result in less or more mitigation than would be required under a set the standard mitigation ratio guidance (Hruby 2011). Both the ratios from Table 3-2 and the Credit-Debit Method are scientifically defensible methods to calculate required compensatory mitigation.

At present, the credit-debit method is used primarily for calculating credits for mitigation banks and in-lieu fee programs, such as the King County Mitigation Reserves Program. Other local jurisdictions still use mitigation ratios, as described above, yet many also allow the use of the credit-debit method to enable use of mitigation banks and in lieu fee programs. Because it is still early in the application of the credit-debit method, it is difficult to directly compare the outcomes of the credit-debit approach to use of mitigation ratios. Because it is a site-specific tool, it is expected that the credit-debit approach may result in higher or lower mitigation requirements relative to mitigation ratios depending on specific site conditions.

3.1.4.3 Mitigation Location

The Agencies (Ecology, Corps, and the U.S. Environmental Protection Agency Region 10) recommend selecting mitigation sites based on proximity to the impact and potential ability to replace impacted functions. In order of preference, a mitigation site should be:

“in the immediate drainage basin as the impact, then the next higher level basin, then the other sub-basins in the watershed with similar geology, and finally, the river basin” (WDOE et al. 2006).

In the past decade, national and state policies have shifted toward using a broader scale approach for mitigation site selection. A recent forum convened by Ecology and composed of regulators, businesses, and environmental/land use professionals recommend that local jurisdictions “establish an ecosystem- or watershed-based approach to mitigation” (WDOE 2008). The ecosystem and watershed-based approach to mitigation looks beyond the property where the impact is proposed to evaluate if off-site compensatory mitigation within the local watershed is a viable option and would have greater benefit to ecosystem functions in the long-term. This is becoming more relevant as land use intensity increases and on-site mitigation has the potential to be more isolated on a landscape-scale, thus reducing some functional potential. Due to the limited success of on-site mitigation, particularly in highly developed areas, a broader watershed scale approach is increasingly desirable and is viewed by the regulatory agencies as more sustainable (WDOE 2008). To guide practical applications of BAS-based compensatory mitigation, the Agencies issued an Ecology publication, *Selecting Wetland Mitigation Sites Using a Watershed Approach* (Hruby et al. 2009). As noted by Azous and Horner 2001 (in Hruby et al. 2009), recreating or maintaining wetland functions in a highly developed landscape may not be sustainable. To account for this, the watershed approach may require a combination of on- and off-site mitigation to achieve functional gains equivalent to the proposed losses (WDOE et al. 2006).

Watershed-based planning is a way for local jurisdictions to manage ecologic resources sustainably. Ecology recently developed a Puget Sound Watershed Characterization project.

This project provides a landscape-scale perspective to help planners manage their wetland and wildlife resources in a targeted and effective manner. It is a coarse-scale tool that uses GIS-based water flow, water quality, and habitat assessments to compare areas within a watershed for restoration and protection value (WDOE 2010).

3.1.4.4 Mitigation Timing

Mitigation actions may occur concurrent with the impact or before project impacts. The mitigation ratios provided by Ecology (Table 3-2) assume concurrent mitigation actions. The amount of mitigation required may be reduced for an advanced mitigation project that reduces the temporal loss of functions. In other words, compensatory mitigation that is completed at the time of impact will take several years to reach full functions; however, when mitigation is completed in advance of the impact, the mitigation area will be more mature and higher functioning at the time the impact occurs. Because the lag period between impact and mitigation is reduced or eliminated with advance mitigation, mitigation ratios may be reduced.

3.1.4.5 Compensatory Mitigation Alternatives

Compensatory mitigation can occur through permittee-responsible mitigation (on-site or off-site), mitigation banks, or in-lieu fee programs. In recent years, with permittee-responsible mitigation as the typical approach, several studies have concluded that despite regulatory mechanisms to ensure “no net loss” of wetlands, substantial loss has occurred, both in terms of wetland area and wetland functions (Matthews and Endress 2008). Losses through compensatory mitigation have been attributed to poor restoration success and a lag time between impacts and mitigation (Bendor 2009).

The increased establishment and use of wetland mitigation banking and in-lieu fee programs has been proposed as a solution to the issues that affect on-site mitigation because 1) regulators can devote more time to monitoring and ensuring the success of mitigation banks, 2) mitigation bank sites are generally situated in an ecologically significant area, and 3) mitigation banks tend to aggregate projects into larger wetlands that may provide more functions than small, isolated wetlands (Bendor and Brozovic 2007, Keddy et al. 2009). The Agencies have stated that, “Mitigation banks provide an opportunity to compensate for impacts at a regional scale and provide larger, better-connected blocks of habitat in advance of impacts” (WDOE et al. 2006). Mitigation banks are also advantageous because mitigation credits generally become available in stages as the wetland permit conditions are met and restoration is successful. This helps minimize the lag time that can create a temporal loss in wetland function (Bendor 2009). Based on this and similar rationale, in 2008, EPA and the U.S. Army Corps of Engineers jointly promulgated regulations revising and clarifying requirements regarding compensatory mitigation, and establishing the following hierarchal preference for implementation of compensatory mitigation:

- 1 Mitigation banks
- 2 In-lieu fee programs
- 3 Permittee-responsible mitigation under a watershed approach

- 4 Permittee-responsible mitigation through on-site and in-kind mitigation
- 5 Permittee-responsible mitigation through off-site or out-of-kind mitigation

Despite the theoretical merits of wetland banking, studies of wetland banking success have been largely equivocal in terms of its documented merits (Mack and Micacchion 2006, Reiss et al. 2009). Currently in King County, the Springbrook Creek Mitigation Bank is approved, but its service area does not extend into Bellevue, meaning that impacts in the city cannot be mitigated at the Springbrook Creek Mitigation Bank. Ecology and the Corps are reviewing the Keller Farm Mitigation Bank in Redmond, the service area of which would be expected to include the City of Bellevue. Approved mitigation banks go through a rigorous state certification process. The certification process includes financial assurance requirements. Oversight from Ecology, the Corps, and other relevant agencies and a phased release of bond funds as mitigation bank performance standards are achieved help support mitigation success.

Another mitigation option is an in-lieu fee program. In-lieu fee programs are similar to mitigation banks, except that projects are implemented after credits are purchased, rather than before. In-lieu fee programs are operated by public agencies. The King County Mitigation Reserves Program (MRP) is an in-lieu fee program that was certified under 2008 federal rules. The program is designed to satisfy mitigation obligations for a wide variety of permit types and may be applied to City permits if the city code allows it. The City of Bellevue is within the MRP service area. If allowed by local code, applicants within King County can use the MRP to buy credits for off-site mitigation. By purchasing credits, the applicant satisfies compensatory mitigation requirements and has no further involvement in the mitigation implementation. The MRP pools funds from the sale of credits in a given service area to develop mitigation sites from a predefined roster. The MRP plans, implements, monitors and maintains projects at chosen sites. At multiple points in the process, an Interagency Review Team will review and approve project proposals.

From an economic perspective, it may be more cost effective for small projects to pay a third party for mitigation credits through a mitigation bank or in-lieu fee program than to proceed with the design, permitting, and implementation of a small mitigation project (Bendor and Brozovic 2007). However, where in-lieu fee programs and mitigation banks include the cost of land acquisition, such as the MRP, credits tend to cost significantly more than on-site mitigation. Additionally, large projects may be able to plan, permit, and implement a large mitigation project for less than the cost of mitigation bank credits.

The City may wish to develop a policy prioritizing use of on-site versus off-site mitigation. The following considerations should factor into such a policy. From a landscape perspective, mitigation banking and in-lieu fee programs have a tendency to drive wetland mitigation from urban to rural areas (Bendor and Brozovic 2007). This migration may be driven by the lower cost of land in rural areas compared to urban areas or the availability of large areas of land for wetland restoration in rural areas (Bendor and Brozovic 2007; Robertson and Hayden 2008). A shift from small, urban wetlands to larger, rural wetlands may allow for a net increase in functions; however, small urban wetlands provide significant water quality functions and may

be particularly important for controlling flooding in highly urbanized environments (Boyer and Polasky 2004), such as in the City of Bellevue. Urban wetlands may also provide recreational and educational opportunities and aesthetic values (Ehrenfeld 2000). Finally, developing urban wetlands may entail high “opportunity costs,” meaning that once lost they will be difficult to replace because of the high price of land in urban areas (Boyer and Polasky 2004). These factors should be considered when developing policies related to the use of mitigation banking and in-lieu fee programs in the City of Bellevue.

3.1.5 Assuring Mitigation Success

The Agencies recommend requiring financial assurances to ensure the success of a mitigation project. “Financial assurances may take the form of performance bonds or letters of credit. Applicants should check with their local planning department to determine if the local government will require performance bonds or other forms of financial assurances. A bond should estimate all costs associated with the entire compensatory mitigation project, including site preparation, plant materials, construction materials, installation oversight, maintenance, monitoring and reporting, and contingency actions expected through the end of the required monitoring period” (WDOE et al. 2006).

Compensatory mitigation projects should be protected in perpetuity. Legal mechanisms, such as deed restrictions and conservation easements, are typically used to achieve this (WDOE et al. 2006).

Additionally, physical site protection may be needed to keep people, pets, and equipment out of mitigation sites. Split-rail fencing and/or critical area signs indicating that the area should not be disturbed are typically required for site protection (WDOE et al. 2006).

3.2 Updates to Existing Conditions

Aerial photos, LiDAR, and GIS data are commonly used for broad-scale analysis of wetland resources. The USFWS’s National Wetland Inventory uses aerial imagery to map likely wetland areas (Figure 3.1).

In 2011, the Washington State Department of Ecology released the Puget Sound Watershed Characterization tool, which utilizes GIS data to perform various basin-scale analyses (Stanley et al. 2011). The Puget Sound Watershed Characterization provides interactive mapping that identifies priority areas on a landscape basis for the protection and restoration of functions related to water flow and water quality (available at <https://fortress.wa.gov/ecy/coastalatlas/wc/landingpage.html>). These maps can help inform the significance of wetland functions at various locations along the landscape. Figure 3.2 below shows a snapshot of the City of Bellevue indicating the relative density of wetlands and undeveloped floodplains (Wilhere et al. 2013).

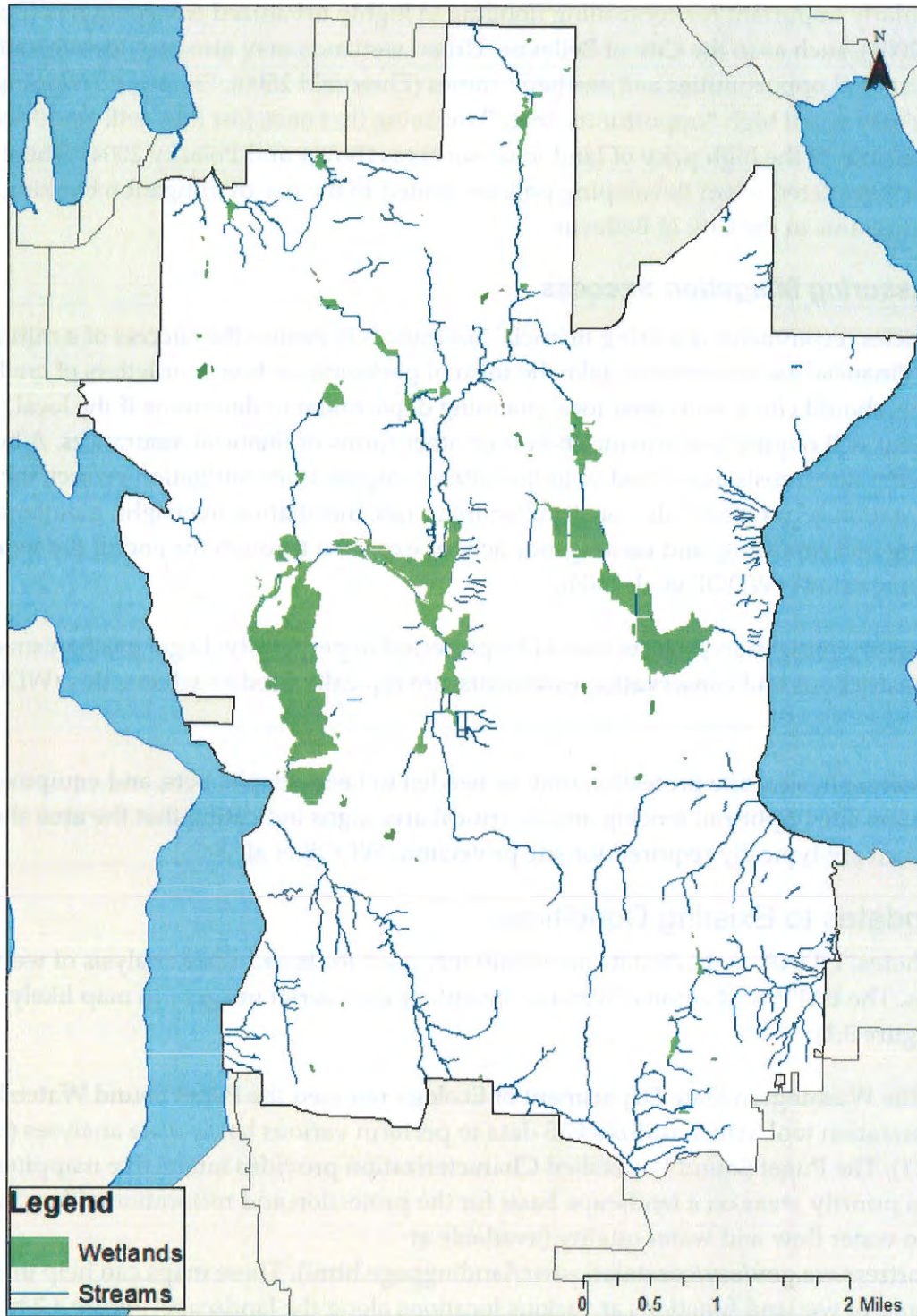


Figure 3.1. Map of wetlands in the City of Bellevue (data from USFWS and City of Bellevue)

Habitat - Hydrogeomorphic Feature

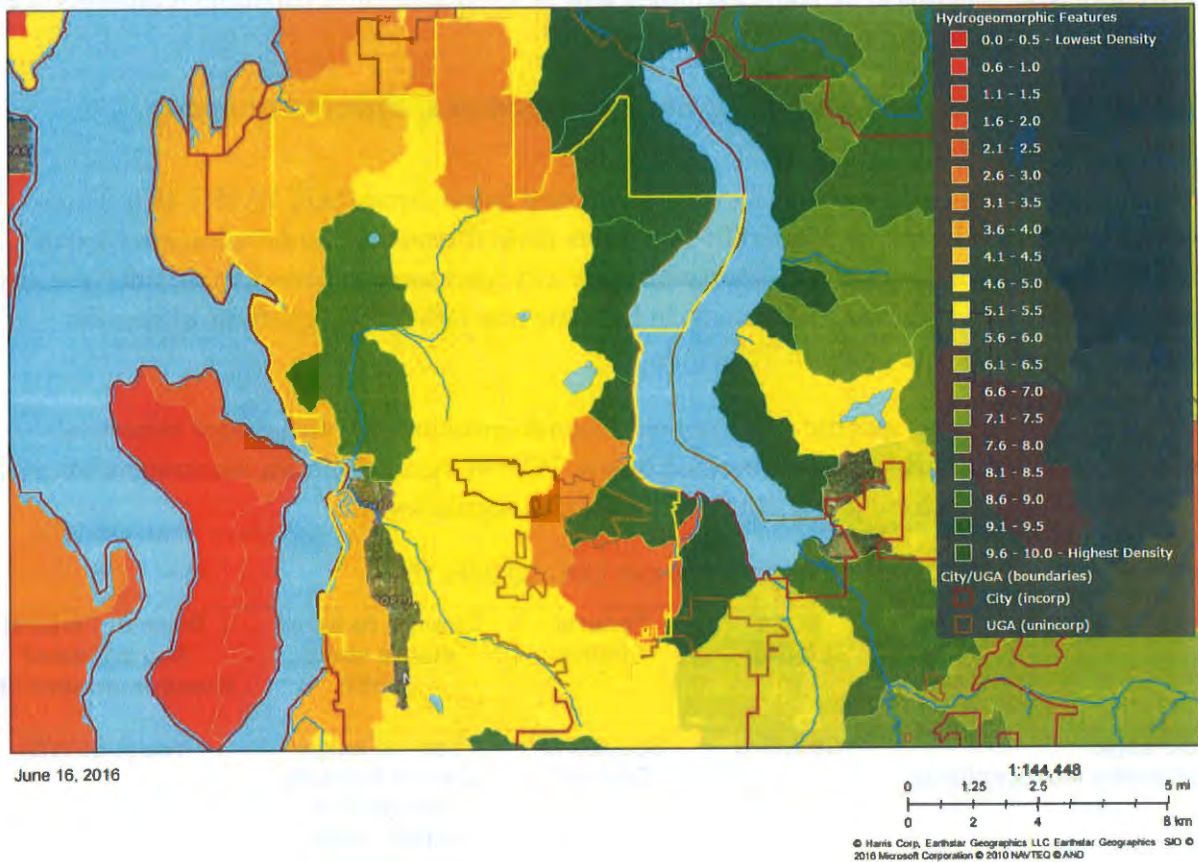


Figure 3.2. Relative density of hydrogeomorphic features, wetlands and undeveloped floodplains, within the city of Bellevue using the Puget Sound Watershed Characterization Tool.

4 TERRESTRIAL HABITAT AND CORRIDORS

4.1 Updates to Best Available Science for Protection of Functions and Values

The *City of Bellevue- 2005 BAS Review* gave a general overview of terrestrial habitat functions and values. The City supplemented the *City of Bellevue- 2005 BAS Review* with a *Bellevue Urban Wildlife Habitat Literature Review (2009 Urban Wildlife Study)* (The Watershed Company 2009). The following analysis builds on these two documents and identifies changes in the science, regulatory listings, or management recommendations since they were written.

4.1.1 Urban Wildlife Habitat

The 2009 Urban Wildlife Study described the significant issues and features associated with wildlife in an urban setting. The precepts discussed in that document hold true today with only

minor nuanced updates in the body of scientific literature related to the role of habitat gaps and disturbance (e.g., Ficetola et al. 2009, Tremblay and St. Clair 2009) and corridors (Gilbert-Norton et al. 2010) in urban wildlife habitat.

4.1.2 Endangered, Threatened, or Sensitive Species, Species of Local Importance

The City of Bellevue Code specifies 23 Species of Local Importance (LUC 20.25H.150). These species encompass all state and federally listed sensitive, threatened, and endangered species, as well as priority species likely to occur within the city, and some species that do not have any state or federal status (Table 4.1). Changes in the state and federal designations of species designated since 2005 are noted in Table 4.1.

State and federal species-specific management recommendations for designated terrestrial species of local importance are summarized below. WDFW species-specific recommendations are often referenced in local jurisdictions' critical areas regulations.

Table 4-1 Species of Local Importance per LUC 20.25H.150

Species	State Listing	Federal Listing	Change to listed status since 2005?	State or Federal Management Recommendations?
Bald eagle <i>Haliaeetus leucocephalus</i>	Sensitive	Species of Concern	Yes- no longer state or federally threatened (state- 2008) (federal-2007) Proposed to be removed from State sensitive list (July 2016)	Yes (USFWS)
Peregrine falcon <i>Falco peregrinus</i>	Sensitive	Species of Concern	Proposed to be removed from State sensitive list (July 2016)	Yes
Common loon <i>Gavia immer</i>	Sensitive			Yes
Pileated woodpecker <i>Dryocopus pileatus</i>	Candidate			Yes
Vaux's swift <i>Chaetura vauxi</i>	Candidate			Yes
Merlin <i>Falco columbarius</i>			Yes- No longer State Candidate	No
Purple martin <i>Progne subis</i>	Candidate			Yes
Western grebe <i>Aechmophorus occidentalis</i>	Candidate			No
Great blue heron <i>Ardea herodias</i>	Priority Species			Yes

Species	State Listing	Federal Listing	Change to listed status since 2005?	State or Federal Management Recommendations?
Osprey <i>Pandion haliaetus</i>			No- no longer State priority species (1999)	No
Green heron <i>Butorides striatus</i>				No
Red-tailed hawk <i>Buteo jamaicensis</i>				No
Western big-eared bat <i>Plecotus townsendii</i>	Candidate	Species of Concern		Yes
Keen's myotis <i>Myotis keenii</i>	Priority Species			Yes
Long-legged myotis <i>Myotis volans</i>	Priority Species			Yes
Long-eared myotis <i>Myotis evotis</i>	Priority Species			Yes
Oregon spotted frog <i>Rana pretiosa</i>	Endangered	Threatened	Yes- federally threatened (2013)	Yes
Western toad <i>Bufo boreas</i>	Candidate		Yes- no longer federal Species of concern	No
Western pond turtle <i>Clemmys marmorata</i>	Endangered	Species of Concern		Yes
Chinook salmon <i>Oncorhynchus tshawytscha</i>	Candidate	Threatened		see Stream section
Bull trout <i>Salvelinus confluentus</i>	Candidate	Threatened		see Stream section
Coho salmon <i>Oncorhynchus kisutch</i>		Species of Concern		see Stream section
River lamprey <i>Lampetra ayresi</i>	Candidate	Species of Concern		see Stream section

The meaning of state and federal statuses are described as follows:

- Federal Endangered: a species in danger of extinction throughout all or a significant portion of its range
- Federal Threatened: a species likely to become endangered in the foreseeable future throughout all or a significant portion of its range
- Federal Species of Concern: informal term, not defined in the federal Endangered Species Act, which commonly refers to species that are declining or appear to be in need of conservation
- State Endangered: wildlife species native to the state of Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state
- State Threatened: wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant

- portion of its range within the state without cooperative management or removal of threats
- State Sensitive: wildlife species native to the state of Washington that is vulnerable or declining and is likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats
 - State Candidate: fish and wildlife species that the Department will review for possible listing as State Endangered, Threatened, or Sensitive
 - State Priority Species: species that require protective measures for their survival due to their population status, sensitivity to habitat alteration, and/or recreational, commercial, or tribal importance. Priority species include State Endangered, Threatened, Sensitive, and Candidate species; animal aggregations (e.g., heron colonies, bat colonies) considered vulnerable; and species of recreational, commercial, or tribal importance that are vulnerable.
 - State Monitor Species are those that require management, survey, or data emphasis for one or more of the following reasons:
 - They were classified as endangered, threatened, or sensitive within the previous five years.
 - They require habitat that is of limited availability during some portion of their life cycle.
 - They are indicators of environmental quality.
 - There are unresolved taxonomic questions that may affect their candidacy for listing as endangered, threatened, or sensitive species.

4.1.3 State and Federal Species-specific Management Recommendations

Where State or federal management recommendations for species of local importance are available, they are described below. For those species for which specific state or federal management recommendations do not exist, available management recommendations are also summarized.

These were summarized for nine species in the 2003 *Bellevue Critical Areas Update Best Available Science Paper: Wildlife* (City of Bellevue 2003). Currently applicable state and federal management recommendations are described below.

4.1.3.1 Bald Eagle

WDFW previously required bald eagle management plans for development within the vicinity of a bald eagle nest. Since the state changed the bald eagle status from threatened to sensitive in 2007, it no longer asserts regulatory authority over bald eagle management, nor does it provide current management recommendations. The USFWS provides management recommendations under the regulatory purview of the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. These recommendations focus on establishing management areas associated with different habitat features (e.g., nesting, roosting, perching), as summarized in the national

bald eagle guidelines (USFWS 2007). Nesting recommendations are relevant to the City of Bellevue.

4.1.3.2 Peregrine Falcon

WDFW maps two known occurrences of peregrine falcon in Bellevue, one near the Interstate 90 bridge over Lake Washington and another in downtown Bellevue. WDFW recommends protection of Peregrine falcons through year-round and season buffering, wetland protection, pesticide restrictions, powerline avoidance, retaining trees and snags, maintaining nest sites and winter feeding habitats. Year-round a protective buffer width of 1,310 feet is recommended around any nest site. During nesting season the buffer width increases to 2,620 feet for forest practices and 1,640 feet for aircraft approaches. Nesting season is March 1 – June 30 (Hays and Milner 1999).

4.1.3.3 Common Loon

Loons are not known to breed in or near the City, but they may over-winter in the area (Lewis et al. 1999). Loons are sensitive to mercury levels; activities that may elevate mercury levels should be avoided (Lewis et al. 1999). Other recommendations relate to breeding habitat, which is not known to occur in Bellevue.

4.1.3.4 Pileated Woodpecker

WDFW management recommendations to protect pileated woodpecker habitat include, maintaining large stands of dead and decaying trees used for nesting, and retaining stumps and large woody debris used for foraging (Lewis and Azerrad 2003). Coniferous forest stands about 60 year old or older should be retained at >70% canopy cover and have at least 2 snags/10 acres that are 30-inches in diameter. Seven snags per acre, at least 90-feet tall with diameters of 61-122-inches are recommended for nesting and roosting habitat (Lewis and Azerrad 2003). These recommendations apply in areas with intact forested areas.

4.1.3.5 Vaux's Swift

Vaux's swifts are summer residents throughout wooded areas of Washington (Lewis et al. 2002). WDFW recommends protecting existing forest stands, particularly old growth, retaining large hollow snags and future snag trees, and retaining large defective or rotting trees (Lewis et al. 2002). Chimneys occupied by nesting or roosting Vaux's swifts should not be disturbed between May and September. Pesticide use in or near nests and roosts should be avoided; appropriate buffer widths for pesticide applications range from 100 feet to 1,640 feet (Lewis et al. 2002).

4.1.3.6 Merlin

Merlins were placed on the Washington candidate list in 1997 due to apparent rarity and a concern about the effects of timber harvest practices. However, they were removed from the list in 2010. Although merlins are rare and localized breeders, they are not particularly sensitive to human activities and there does not seem to be any immediate or widespread threat to their populations (WDFW 2012).

4.1.3.7 Purple Martin

To protect purple martin, WDFW recommends retaining any pilings or snags with purple martin nests, retain snags in or near water, and create snags at forest openings and edges (Hays and Milner 2003). Pileated woodpeckers and northern flickers create cavities that can be used by purple martins, so habitats should be managed to support these mutually beneficial birds (Hays and Milner 2003). Pesticide use in purple martin habitat should be avoided or highly restricted (Hays and Milner 2003).

4.1.3.8 Western Grebe

Western greebes breed in inland lakes of Eastern Washington in the summer, and migrate west to the Puget Sound region and the Pacific Coast in winter (WDFW 2012). Threats to over-wintering western grebe are thought to be diminishing forage fish prey populations and oil spills. Other factors that may threaten over-wintering western greebes include fishing bycatch and derelict fishing gear (WDFW 2012). Specific management recommendations that would apply to the City of Bellevue are not indicated.

4.1.3.9 Great Blue Heron

One great blue heron rookery is mapped by WDFW in the City of Bellevue along Kelsey Creek. WDFW recommends protection mechanisms for Heron Management Areas, which consist of the nesting colony, year-round and seasonal buffers, foraging habitat, and congregation areas where they exist (Azerrad 2012). Specifically, clearing vegetation, grading, and construction should never occur in the core zone (breeding area and year-round management zone), and other potential disturbances, including recreation and vegetation management, should be minimized or restricted to the period outside of the breeding season. Foraging habitat should be protected with riparian buffers, and activities such as vegetation removal, logging, perch tree disturbance, wetland filling, and construction should be minimized. Heron colonies closer to human activity may tolerate more disturbance than colonies in more undisturbed areas; therefore, appropriate buffers may be smaller in more developed areas. Year-round and seasonal management recommendations are provided in Table 4-2.

Table 4-2. Great blue heron recommended management zones from Azerrad 2012

Adjacent land use	Distance from Nesting Colony	Management Practice
Undeveloped (0-2% developed area)	300 m (984 feet)	Avoid clearing vegetation, grading, and construction year-round
Suburban/rural (3-49% developed area)	200 m (656 feet)	
Urban (>50% developed area)	60 m (196 feet)	
All Uses	200 m (656 feet)	Avoid loud noises February-September
	400 m (1320 feet)	Avoid extreme loud noises February-September

4.1.3.10 Osprey, Green Heron, and Red-Tailed Hawk

No specific WDFW management recommendations are available for the osprey, green heron, or red-tailed hawk. As noted in Table 4-1, WDFW removed osprey from the priority species list in 1999. Red-tailed hawks and green herons are also not included in the priority species list. Red-tailed hawks are the most common and widespread hawk in North America. Populations of both osprey and red-tailed hawks numbers are increasing in Washington State (BirdWeb, electronic reference). Population trends for green heron are not documented in Washington. Protection of small wetlands is especially important for green heron (BirdWeb, electronic reference).

4.1.3.11 Western big-eared bat

WDFW recommends maintaining and repairing old buildings and mines used by bat colonies for roosting. Sites that support nursery and hibernation roosts are not suitable for recreational use. Bat access to contaminated water should be restricted and pesticide use should be avoided or highly restricted. Retention of forest patches and snags and riparian/aquatic systems used for foraging and roosting are important for conservation of the species (Woodruff et al. 2005, Hayes and Wiles 2013).

4.1.3.12 Myotis Bats- Keen's Myotis, Long-legged myotis, and Long-eared myotis

Keen's myotis, long-legged myotis, and long-eared myotis are primarily associated with forested areas (Hayes and Wiles 2013). Keen's myotis have not been documented to occur in King County (WDFW 2012). Maintenance a high density of snags, both away from and in proximity to aquatic areas, provides significant habitat for these species (Hayes and Wiles 2013). Buffers around snag areas should be considered where bat colonies are present (Hayes and Wiles 2013).

4.1.3.13 Oregon Spotted Frog

The Oregon spotted frog was federally listed as threatened in 2013 (Federal Register August 29, 2013). In Washington, Oregon spotted frogs are known to occur only within six subbasins/watersheds: the Sumas River; Black Slough in the lower South Fork Nooksack River; the Samish River; Black River (a tributary to the Chehalis River); Outlet Creek (a tributary to the Middle Klickitat River); and Trout Lake Creek (a tributary of the White Salmon River) (Federal Register, May 11, 2016). Based on the Oregon Spotted Frog Screening Model (Germaine and Costentino 2004), wetlands in the City of Bellevue are unlikely to meet all the criteria necessary to support the presence of Oregon spotted frogs. Specifically, wetlands in Bellevue are unlikely to meet the criterion that less than 9.8% of the area within a mile of the wetland's perimeter is developed. Critical habitat has recently been designated for the Oregon spotted frog (Federal Register, May 11, 2016), but does not include any portion of the Cedar/Sammamish watershed.

4.1.3.14 Western Toad

No specific WDFW management recommendations are available for the western toad. The western toad is widely distributed in the western United States and Canada (Stebbins 1954, 1985 as cited in Davis 2002). Declining populations have been documented in areas across the

range, even in relatively pristine environments (Davis 2002). Local population trends are not known.

4.1.3.15 Western Pond Turtle

WDFW recommends managing any watercourse within 0.5 mile of a site known to contain western pond turtles. A protective 1,300-1,600 foot buffer is recommended around all water bodies inhabited by western pond turtles. Emergent logs or stumps should be retained; the turtles utilize them for basking. Logs should be provided if such habitat is lacking. Wetland alterations should be avoided. Sunny embankments and open sites should be protected from vehicles and other trampling uses; these areas are used for nesting. Native fish and amphibian populations should be retained; new species should not be introduced. Additionally, pesticide use should be avoided. Logging should be restricted with 1,300 feet of waters inhabited by these turtles (McAllister 1999).

4.2 Updates to Existing Conditions

The Storm and Surface Water System Plan (2016, including appendices) provides an extensive and up-to-date description of existing conditions relating to both riparian corridors and forest cover within the city. That document should be referenced for a summary of existing conditions relative to terrestrial habitat and corridors within the City of Bellevue.

Figure 4.1 below, shows terrestrial open space blocks in the City of Bellevue and ranks them based on ecological integrity. Ecological integrity is defined as the ability to support and sustain a biologic community typical of natural habitat in this region (Parrish et al. 2003 in Wilhere et al. 2013). The ecologic or landscape integrity of open space blocks is a function of size, shape, proximity to other open space blocks and land use patterns (Wilhere et al. 2013). As is typical of urban environments, the ecological integrity of open space block in the City of Bellevue is relatively low. As described in the 2003 Bellevue Critical Areas Update Best Available Science Paper: Wildlife (City of Bellevue), riparian areas and forested steep slopes comprise the majority of Bellevue's remaining habitat corridors and linkages.

Habitat - Terrestrial Open Space Blocks

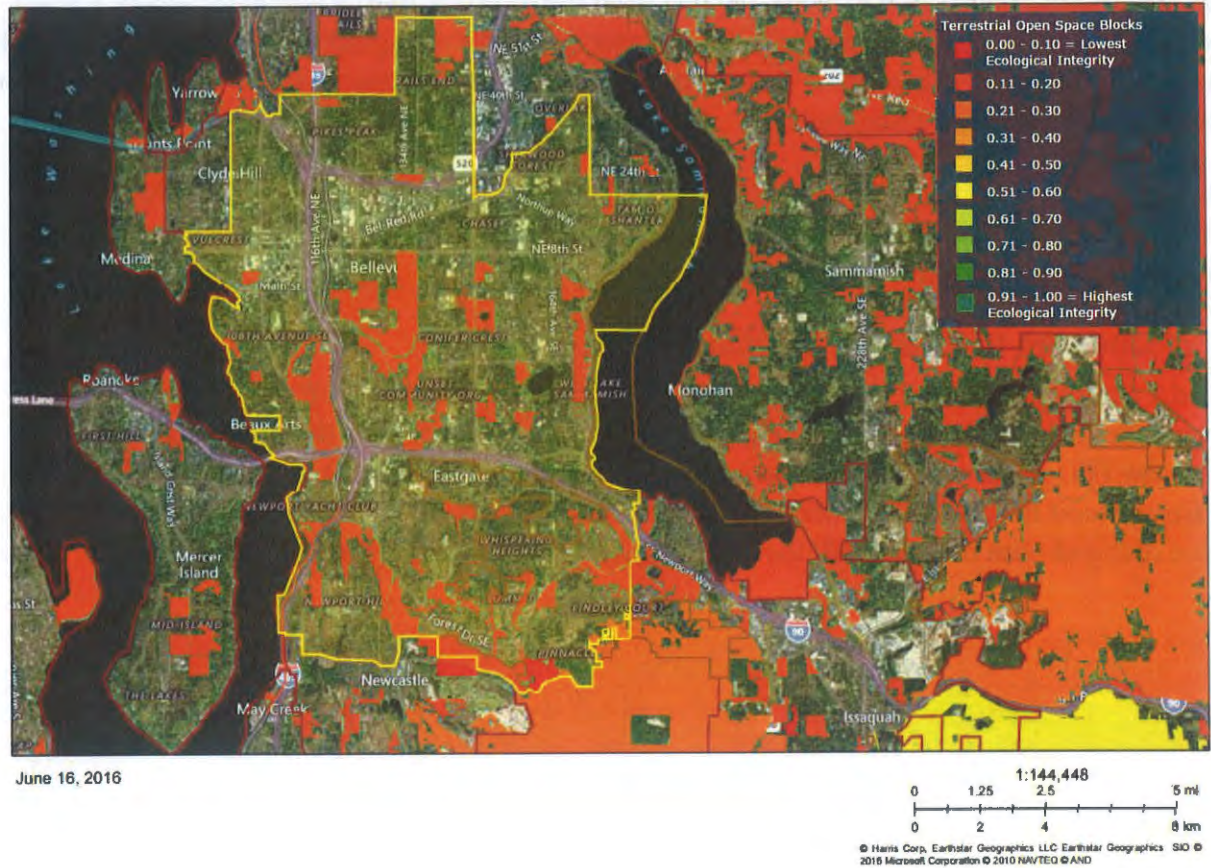


Figure 4.1. Terrestrial Open Space Blocks in City of Bellevue.

5 FREQUENTLY FLOODED AREAS

5.1 Update to Best Available Science for Protection of Functions and Values

Frequently flooded areas (FFA) are regulated to manage potential risks to public safety. Such areas also provide valuable instream habitat benefits, such as low velocity habitat during flood events.

A 2008 National Marine Fisheries Service (NMFS) biological opinion related to the implementation of the Federal Emergency Management Agency’s (FEMA) National Flood Insurance Program (NFIP) in the Puget Sound Region summarizes the importance of floodplain functions for threatened salmonids and endangered southern resident killer whales (NMFS 2008). As a result of this biological opinion, cities and counties in the Puget Sound region are required to either amend regulations to protect floodplain functions or require habitat assessments for development in the floodway or floodplain. Through either approach, the city

must ensure that development within the Special Flood Hazard Area (100-year floodplain) and riparian buffer zone, which extends 250 feet from the ordinary high water mark where a flood feature is present, does not adversely affect water quality, water quantity, flood volumes, flood velocities, spawning substrate, or floodplain refugia for listed salmonids. The biological opinion also applies to mapped floodways and channel migration zones.

Standards that continue to protect human life from flood hazards and provisions that ensure compliance with the 2008 NFIP biological opinion will help ensure that floodplain ecological functions are maintained.

5.2 Updates to Existing Conditions

FEMA completed a Flood Insurance Study (FIS) for King County in 2010, which was supplemented in 2013. The preliminary Digital Flood Insurance Rate Maps (DFIRM) resulting from the FIS update are listed as “on hold,” and are not yet in effect. A comparison of the existing Flood Insurance Rate Map (Q3) and the preliminary DFIRM indicates that few areas have changed with the updated floodplain study information (Figure 5.1).

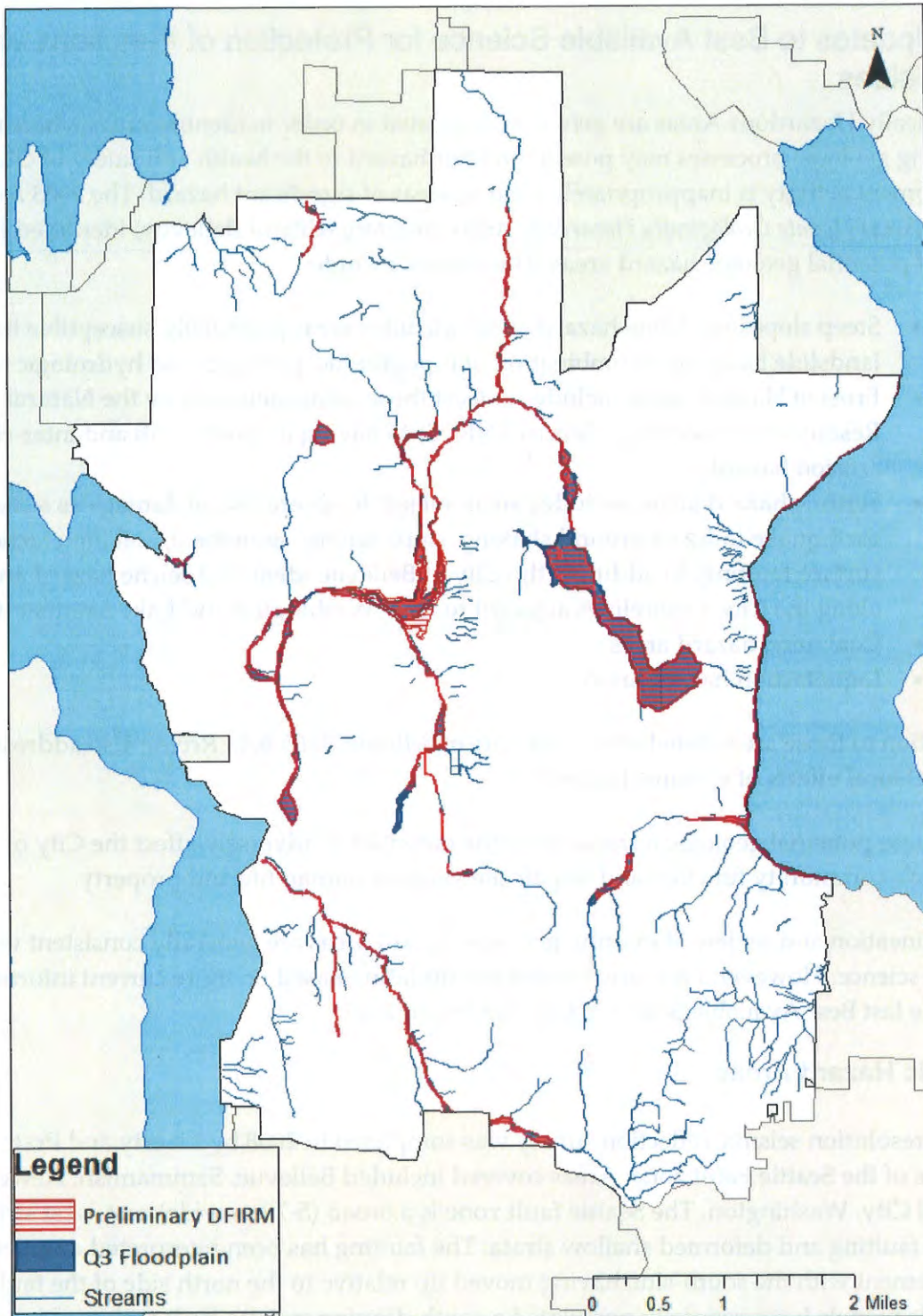


Figure 5.1 Map showing currently effective (Q3) and preliminary (DFIRM) floodplain mapping.

6 GEOLOGIC HAZARD AREAS

6.1 Updates to Best Available Science for Protection of Functions and Values

Geologically Hazardous Areas are generally regulated in order to identify areas where naturally occurring geologic processes may pose a threat or hazard to the health and safety of citizens if development activity is inappropriately sited in areas of significant hazard. The 2003 *Bellevue Critical Areas Update Geologically Hazardous Areas Inventory* (City of Bellevue) identified five types of potential geologic hazard areas. These areas include:

- Steep slopes/landslide hazard areas: includes areas potentially susceptible to landslide based on a combination of topographic, geologic, and hydrologic factors.
- Erosion Hazard areas: includes at least those areas identified by the Natural Resources Conservation Service (NRCS) as having a “severe” rill and inter-rill erosion hazard.
- Seismic hazard areas: includes areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, or surface faulting. In addition, the City of Bellevue identified seiche hazard areas along the City’s shorelines adjacent to Lake Washington and Lake Sammamish.
- Coal mine hazard areas
- Liquefaction hazard areas

In addition to those areas listed above, the *City of Bellevue- 2005 BAS Review* also addressed potential local effects of volcanic hazards.

All of these potential geologic hazards have the potential to adversely affect the City of Bellevue’s community function and impair the value of human life and property.

The delineation and review of existing geologic hazard areas are generally consistent with current science. However a few areas could use updating based on more current information since the last Best Available Science (BAS) Review in 2005.

Seismic Hazard Areas

A high resolution seismic reflection survey was completed in 2008 by Liberty and Pratt (2008) in portions of the Seattle Fault zone. Areas covered included Bellevue, Sammamish, Newcastle, and Fall City, Washington. The Seattle fault zone is a broad (5-7 km wide) east-west striking zone of faulting and deformed shallow strata. The faulting has been interpreted as reverse-slip displacement with the south-side having moved up relative to the north side of the fault zone. Geologic models have generally postulated a south-dipping reverse fault with multiple strands and back-thrusts in the hanging wall (Pratt et al., 1997; ten Brink et al, 2002 and Fisher et al. 2006). This leading edge has been termed a “deformation front” by Liberty and Pratt (2008), mainly in the form of a monoclinial fold, termed the Seattle monocline by Johnson et al (1999). The general stratigraphy consists of Quaternary age sediments overlying more reflective

northward dipping Tertiary age bedrock. In addition, the Vasa Park segment of the Seattle Fault Zone has been trenched by Sherrod (2002) and has shown direct evidence of thrusting of older strata over younger strata. The younger strata being a paleosol dated at 11,500 +/- 40 radiocarbon years B.P. (before present).

Based on the results of the seismic reflection survey, Liberty and Pratt interpret the leading edge of the Seattle Fault zone approximately 3 km farther north than the northern edge of the Seattle Fault Zone as shown on Figure G-2, Geologic Hazards map in the 2003 Bellevue Critical Areas Update Geologically Hazardous Areas Inventory.

The potential for mitigation of surface fault rupture hazards will depend on the accuracy by which fault traces can be delineated as well as the recurrence intervals for which earthquakes capable of producing surface rupture occur. This can be difficult because of the glacially modified and urbanized landscape has obscured or removed most surface evidence. As more information is gained on the limits of the Seattle fault zone and the potential for surface fault rupture, consideration should be given by the City of Bellevue to encourage studies to better delineate limits of the Seattle fault zone as well as the recurrence intervals of earthquake events. As was mentioned in the 2005 BAS Review, the City can assist such efforts by compiling a database of geotechnical reports for properties located within and around the Seattle fault zone.

The City might consider requiring disclosure statements from property owners as part of property transactions if known documented evidence of surface faulting or deformation exists on a particular parcel.

The Geologic Hazards map shown on Figure G-2 of the 2003 Bellevue Critical Areas Update Geologically Hazardous Areas Inventory does not include the Mercer Slough area as a Liquefaction Hazard area. The Mercer Slough area is a wetland area and presents a liquefaction hazard. The King County Flood Control District Map 11-5 for Liquefaction Susceptibility, dated May 2010, shows a moderate to high level of liquefaction for the Mercer Slough area. The Liquefaction Susceptibility Map of the Greater Eastside Area, King County, Washington (Palmer et al., 2002) shows the Mercer Slough area as underlain by peat deposits. Peat by itself is not susceptible to liquefaction but may experience settlement resulting from earthquake shaking. Peat is commonly interstratified with sand strata and lenses that are liquefiable.

Landslide Hazard Areas

Debris flow run out distances have come to the forefront since the March 2014 Oso landslide. Landslide and steep slope regulations commonly focus on setback distances from the crest of slopes, with minimal attention given to the setback distance from the toe of slopes. Of concern are setback recommendations from the toes of slopes where incised drainages in the slope may be the source of shallow debris flows and associated run out distance from mouth of the ravine. Site specific evaluations should be required by a qualified geologist to determine the potential for debris flow/slide occurrence. The SR530 Landslide Commission Final report (2014) recommends identifying "critical area buffer widths based on site specific geotechnical studies"

as an "innovative development regulation," that counties and cities should adopt (SR 530 Landslide Commission).

6.2 Updates to Existing Conditions

Given the geologic timescale, existing conditions as described in the 2003 Bellevue Critical Areas Update Geologically Hazardous Areas Inventory are considered current.

7 CRITICAL AQUIFER RECHARGE AREAS

Drinking water in the City of Bellevue is supplied through the Cascade Water Alliance. Critical Aquifer Recharge Areas (CARAs) are not addressed in this report. Best available science and recommendations for these types of critical areas were included in the *City of Bellevue- 2005 BAS Review*. However, given the limited number of wells in the City, the availability of public water supply to those areas that currently use wells, and state Safe Water Drinking Act requirements for wellhead protection, the City did not address critical aquifer recharge areas in its critical areas code. The Critical Aquifer Recharge Areas Guidance Document was published by the Washington Department of Ecology in January 2005, and it has not been updated since that time.

Since the 2005 BAS Review, the City has updated its Water System Plan. The City's 2016 Water System Plan identifies four emergency water supply wells maintained by the City, as well as several more that are held in reserve for emergency use. The City intends to eventually use these groundwater wells, which the City acquired through incorporation of water districts into the City's water service area, for emergency-only water production. The wells currently do not provide potable water. The Washington State Department of Health has not yet required a Wellhead Protection Plan because of the limited approved use of the wells. A Wellhead Protection Plan will be required before expanded use of the wells.

Since the 2006 critical areas update, the City annexed the Hilltop neighborhood, which includes an additional Class A well serving 40 connections (Department of Health Electronic Reference). Aquifer susceptibility in the vicinity of the well is rated as moderate (Department of Health Electronic Reference). Hilltop was annexed from unincorporated King County, and under the King County Code, the Hilltop area was not designated as a CARA.

8 SHORELINES

The City is in the process of updating its Shoreline Management Act. Under the proposed update, shorelines themselves are not regulated as critical areas, and critical areas within

shoreline jurisdiction would be regulated under LUC Part 20.25H. The review of best available science addressed throughout this document is also applicable to shoreline critical areas.

9 REFERENCES

9.1 General

City of Bellevue. 2003. Bellevue Critical Areas Update- Geologically Hazardous Areas Inventory.

Herrera Environmental Consultants, Inc. 2005. City of Bellevue's Critical Areas Update 2005 Best Available Science (BAS) Review.

The Watershed Company. 2009. Bellevue Urban Wildlife Habitat Literature Review.

9.2 Streams and Riparian Areas

American Forests. 2008. Urban Ecosystem Analysis: City of Bellevue Washington. American Forests, Washington, D.C. www.americanforests.org.

Aubry K., C. Halpern, and C. Peterson. 2009. Variable-retention harvests in the Pacific Northwest: a review of short-term findings from the DEMO study. *Forest Ecology Management* 258(4):398-408.

Baker M.E., D.E. Weller, and T.E. Jordan. 2006. Improved methods for quantifying potential nutrient interception by riparian buffers. *Landscape Ecology* 21(8):1327-45.

Baldwin, D.H., Tatara, C.P., and Scholz, N.L. 2011. Copper-induced olfactory toxicity in salmon and steelhead: extrapolation across species and rearing environments. *Aquatic Toxicology*, 101:295-297.

Bernal, S., F. Sabater, A. Butturini, E. Nin, and S. Sabater. 2007. Factors limiting denitrification in a Mediterranean riparian forest. *Soil Biology & Biochemistry* 39 (10): 2685-2688.

Bisson, P. A., S.M. Claeson, S.M. Wondzell, A.D. Foster, and A. Steel. 2013. Evaluating Headwater Stream Buffers: Lessons Learned from Watershed- scale Experiments in Southwest Washington. Pgs. 165-184 In: Anderson, P. D. and Ronnenberg, K. L. (eds.). *Density Management in the 21st Century: West Side Story*. General Technical Report, PNW-GTR-880. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

City of Bellevue. 2009. Natural Drainage Practices Maintenance Guidelines.

City of Bellevue. 2016. Storm and Surface Water System Plan.

Colvin, R., G.R. Giannico, J. Li, K.L. Boyer, and W.J. Gerth. 2009. Fish use of intermittent watercourses draining agricultural lands in the upper Willamette River Valley, Oregon. *Transactions of the American Fisheries Society*. 138: 1303-1313.

Cuo, L., D.P. Lettenmaier, M. Alberti, and J.E. Richey. 2009. Effects of a century of land cover and climate change on the hydrology of the Puget Sound basin. *Hydrologic Processes* 23(6):907-33.

Davis, T.M. 2002. Research Priorities for the Management of the Western toad, *Bufo boreas*, in British Columbia. B.C. Ministry of Water, Land and Air Protection, Biodiversity Branch, Victoria, BC. Wildlife Working Report No. WR-106.

DeGasperi C., H. Berge, K. Whiting, J. Burkey, J. Cassin, R. Fuerstenberg. 2009. Linking hydrologic alteration to biological impairment in urbanizing streams of the Puget lowland, Washington, USA. *Journal of the American Water Resources Association* 45(2):512-33.

Dosskey, M.G., K.D. Hoagland, and J.R. Brandle. 2007. Change in filter strip performance over ten years. *Journal of Soil and Water Conservation* 62(1):21-32.

Dosskey, M. G., M. J. Helmers, and D. E. Eisenhauer. 2008. A design aid for determining width of filter strips. *Journal of Soil and Water Conservation* 63(4):232-241.

Feist, B. E., E.R. Buhle, P. Arnold, J.W. Davis and N.L. Scholz. 2011. Landscape Ecotoxicology of Coho Salmon Spawner Mortality in Urban Streams. *PLoS ONE* 6(8):e23424. doi:10.1371/journal.pone.0023424.

Fox, M. and S. Bolton. 2007. A regional and geomorphic reference for quantities and volumes of instream wood in unmanaged forested basins of Washington State. *North American Journal of Fisheries Management* 27(1):342-359.

Gomi, T., D. Moore, and M. Hassan. 2005. Suspended sediment dynamics in small forest streams of the Pacific Northwest. *Journal of the American Water Resource Association* 41(4):877-98.

Gomi, T., R. D. Moore, and A.S. Dhakal. 2006. Headwater Stream Temperature Response to Clear-cut Harvesting with Different Riparian Treatments, Coastal British Columbia, Canada. *Water Resources Research*. Vol. 42, W08437, doi:10.1029/2005WR004162.

- Hecht, S.A., D.H. Baldwin, C.A. Mebane, T. Hawkes, S.J. Gross, and N.L. Scholz. 2007. An overview of sensory effects on juvenile salmonids exposed to dissolved copper: applying a benchmark concentration approach to evaluate sublethal neurobehavioral toxicity. NOAA Technical Memorandum NMFS-NWFSC-83.
- Helmers, M.J., D.E. Eisenhauer, M.G. Dosskey, T.G. Franti, J.M. Brothers, and M.C. McCullough. 2005. Flow pathways and sediment trapping in a field-scale vegetative filter. *Transactions of the ASAE* 48:955-968.
- Heisler, J., M. Glibert, J.M. Burkholder, D.M. Anderson, W. Cochlane, W.C. Dennison, Q. Dortch, C.J. Gobler, C.A. Heil, E. Humphries, A. Lewitus, R. Magnien, H.G. Marshall, K. Sellner, D.A. Stockwell, D.K. Stoecker, M. Suddleson. 2008. Eutrophication and harmful algal blooms: A scientific consensus. *Harmful Algae* 8 (3-13)
- Heithecker, T. and C. Halpern. 2006. Variation in microclimate associated with dispersed-retention harvests in coniferous forests of western Washington. *Forest Ecology and Management* 226(1-3): 60-71.
- Heithecker, T. and C. Halpern. 2007. Edge-related gradients in microclimate in forest aggregates following structural retention harvests in western Washington. *Forest Ecology Management* 248(3):163-73.
- Jensen, D.W., E.A. Steel, A.H. Fullerton, G.R. Pess. 2009. Impact of Fine Sediment on Egg-To-Fry Survival of Pacific Salmon: A Meta-Analysis of Published Studies. *Reviews in Fisheries Science*.
- Kelly J.M., J.L. Kovar, R. Sokolowsky, T.B. Moorman. 2007. Phosphorus uptake during four years by different vegetative cover types in a riparian buffer. *Nutrient Cycling in Agroecosystems* 78(3):239-51.
- Konrad, C.P., and D.B. Booth. 2005. Hydrologic changes in urban streams and their ecological significance. In L. R. Brown, R. H. Gray, R. M. Hughes, and M. R. Meador (editors). *Effects of urbanization on stream ecosystems*. Symposium 47. American Fisheries Society, Bethesda, Maryland.
- Lassette, N.S. and G.M. Kondolf. 2012. Large woody debris in urban stream channels: redefining the problem. *River Research and Applications* 28: 1477-1487.

- Mayer, P.M., S.K. Reynolds, J. Marshall, D. McCutchen, and T.J. Canfield. 2007. Meta- Analysis of Nitrogen Removal in Riparian Buffers. *Journal of Environmental Quality*. 36: 1172-1180.
- Mayer, P.M., S.K. Reynolds, D. McCutchen, and T.J. Canfield. 2005. Riparian Buffer Width, Vegetative Cover, and Nitrogen Removal Effectiveness: A Review of Current Science and Regulations. EPA/600/R-05/118. Cincinnati, Ohio, U.S. Environmental Protection Agency.
- McBride, M. and D.B. Booth. 2005. Urban impacts on physical stream condition: Effects of spatial scale, connectivity, and longitudinal trends. *Journal of the American Water Resources Association* 41:565-580.
- McIntyre, J. K., D. H. Baldwin, J. P. Meador, and N. L. Scholz. 2008. Chemosensory deprivation in juvenile coho salmon exposed to dissolved copper under varying water chemistry conditions. *Environmental Science & Technology* 42:1352-1358.
- McIntyre, J. K., D.H. Baldwin, D. Beauchamp, and N.L. Scholz. 2012. Low-level copper exposures increase visibility and vulnerability of juvenile coho salmon to cutthroat trout predators. *Ecological applications : a publication of the Ecological Society of America*, 22(5):1460–71.
- McIntyre, J.K., Davis, J.W., Hinman, C., Macneale, K.H., Anulacion, B.F., Scholz, N.L. & Stark, J.D. 2015. Soil bioretention protects juvenile salmon and their prey from the toxic impacts of urban stormwater runoff. *Chemosphere*, 132: 213–219.
- Moore, R.D. and S.M. Wondzell. 2005. Physical hydrology and the effects of forest harvesting in the Pacific Northwest: a review. *Journal of the American Water Resources Association* 41:763-784.
- Moore, R.D., D.L. Spittlehouse, and A. Story. 2005. Riparian microclimate and stream temperature response to forest harvesting: a review. *Journal of the American Water Resources Association* 41:813-834.
- Newbold, J. D., S. Herbert, B.W. Sweeney, P. Kiry, and S.J. Alberts. 2010. Water Quality Functions of a 15-Year-Old Riparian Forest Buffer System. *JAWRA Journal of the American Water Resources Association*, 46: 299–310.
- Pollock, M.M., T.J. Beechie, M. Liermann, and R.E. Bigley. 2009. Stream temperature relationships to forest harvest in western Washington. *Journal of the American Water Resources Association* 45(1):141–156.

- Polyakov, V. A. Fares, and M.H. Ryder. 2005. Precision Riparian Buffers for the Control of Nonpoint Source Pollutant Loading into Surface Water: A Review. *Environmental Review*. 13: 129-144. Published on the NRC Research Press Web site at <http://er.nrc.ca/> on 16 August 2005.
- Qiu, Z. 2009. Assessing Critical Source Areas in Watersheds for Conservation Buffer Planning and Riparian Restoration. *Environmental Management*: 44:968-980.
- Roni, P., T. Beechie, G. Pess, and K. Hanson. 2014. Wood placement in river restoration: fact, fiction, and future direction. *Canadian Journal of Fisheries and Aquatic Sciences* 72(3):1731-1748.
- Scholz, N. L., M. S. Myers, S. G. McCarthy, J. S. Labenia, J. K. McIntyre, G. M. Ylitalo, L. D. Rhodes, C. A. Laetz, C. M. Stehr, B. L. French, B. McMillan, D. Wilson, L. Reed, K. D. Lynch, S. Damm, J. W. Davis, and T. K. Collier. 2011. Recurrent die-offs of adult coho salmon returning to spawn in Puget Sound lowland urban streams. *PloS one* 6(12):e28013.
- Shandas, V. and M. Alberti. 2009. Exploring the role of vegetation fragmentation on aquatic conditions: Linking upland with riparian areas in Puget Sound lowland streams. *Landscape Urban Planning* 90(1-2):66-75.
- Sobota, D. J., S.L., Johnson, S.V. Gregory, and L.R. Ashkenas. 2012. A Stable Isotope Tracer Study of the Influences of Adjacent Land Use and Riparian Condition on Fates of Nitrate in Streams. *Ecosystems* 15:1-17
- Spromberg, J.A. and N.L. Scholz. 2011. Estimating the Future Decline of Wild Coho Salmon Populations Resulting from Early Spawner Die-Offs in Urbanizing Watersheds of the Pacific Northwest, USA. *Integrated Environmental Assessment and Management*. Vol 7. No 4: 648-656.
- Spromberg, J.A., Baldwin, D.H., Damm, S.E., McIntyre, J.K., Huff, M., Sloan, C., Anulacion, B., Davis, J.W., and Scholz, N.L. 2015. Coho salmon spawner mortality in western US urban watersheds: bioinfiltration prevents lethal storm water impacts. *Journal of Applied Ecology* 53: 398-407.
- Tomer, M., M. Dosskey, M. Burkart, D. James, M. Helmers, and D. Eisenhauer. 2009. Methods to Prioritize Placement of Riparian Buffers for Improved Water Quality. *Agroforestry Systems* 75:17-25.

- Utz, R., R.H. Hilderbrand, and D.M. Boward. 2009. Identifying regional differences in threshold responses of aquatic invertebrates to land cover gradients. *Ecological Indicators* 9:556–567.
- Verstraeten, G, J. Poesen, K. Gillijns, G. Govers. 2006. The use of riparian vegetated filter strips to reduce river sediment loads: an overestimated control measure? *Hydrologic Processes* 20(20):4259-67.
- Walsh CJ, K. A. Waller, J. Gehling and R. MacNally. 2007. Riverine invertebrate assemblages are degraded more by catchment urbanization than by riparian deforestation. *Freshwater Biology* 52: 574–587.
- Wigington, Jr., P.J., J.L. Ebersole, M.E. Colvin, et al. 2006. Coho salmon dependence on intermittent streams. *Frontiers in Ecology and the Environment* 10:513–18.
- Wipfli M.S., J.S. Richardson, and R.J. Naiman. 2007. Ecological linkages between headwaters and downstream ecosystems: Transport of organic matter, invertebrates, and wood down headwater channels. *Journal of the American Water Resources Association* 43(1):72-85.
- Wipfli, M. S. 2005. Trophic linkages between headwater forests and downstream fish habitats: implications for forest and fish management. *Landscape and Urban Planning* 72:205-213.
- Zhang, X., X. Liu, M. Zhang, and R.A. Dahlgren. 2010. A review of vegetated buffers and an meta-analysis of their mitigation efficacy in reducing nonpoint source pollution. *Journal of Environmental Quality* 39:76-84.

9.3 Wetlands

- Bendor, T. and Brozovic, N. 2007. Determinants of spatial and temporal patterns in compensatory wetland mitigation. *Environmental Management* 40(3), pp. 349-364.
- Bendor, T. 2009. A dynamic analysis of the wetland mitigation process and its effects on no net loss policy. *Landscape and Urban Planning* 89(1), pp. 17-27.
- Boyer, T. and Polasky, S. 2004. Valuing urban wetlands: a review of non-market valuation studies. *Wetland* 24(4), pp. 744-755.
- Brinson, M. M. 1993. A hydrogeomorphic classification for wetlands. Technical Report WRP-DE-4, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. NTIS No. AD A270 053.

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service. Publ. #FWS/OBS-79/31. 131 p.
- Ehrenfeld, J.G. 2000. Evaluating wetlands within an urban context. *Ecological Engineering* 15(3), pp. 253-265.
- Granger, T., Hruby, T., McMillan, A., Peters, D., Rubey J., Sheldon, D., Stanley, S., Stockdale, E. 2005. Wetlands in Washington State, Volume 2 – Guidance for Protecting and Managing Wetlands. Washington State Department of Ecology Publication No. 05-06-008.
- Hruby, T. 2004, Rev. 2006 (Updated Oct. 2008). Washington State Wetland Rating System for Western Washington. Washington State Department of Ecology Publication No. 04-06-025. Olympia, Washington.
- Hruby, T., K Harper, S. Stanley. 2009. Selecting Wetland Mitigation Sites Using a Watershed Approach. Washington State Department of Ecology Publication No. 09-06-032. Olympia, WA.
- Hruby, T. 2011. Calculating Credit and Debits for Compensatory Mitigation in Wetlands of Western Washington. Operational Draft. Washington State Department of Ecology Publication No. 10-06-011. Olympia, WA.
- Hruby, T. 2013. Update on Wetland Buffers: The State of the Science, Final Report. 2013. Ecology Publication No. 13-06-11. Washington State Department of Ecology. Olympia, WA.
- Hruby, T. 2014. Washington State Wetland Rating System for Western Washington: 2014 Update. Department of Ecology Publication # 14-06-019. SEA Program, Olympia, Washington.
- Keddy, P.A., Fraser, L.H., Solomeshch, A.I., Junk, W.J., Campbell, D.R., Arroyo, M.T., Alho, C.J. 2009. Wet and wonderful: the world's largest wetlands are conservation priorities. *BioScience* 59(1), pp. 39-51.
- Mack, J.J. and Micacchion, M. 2006. An ecological assessment of Ohio mitigation banks: vegetation, amphibians, hydrology, and soils. Environmental Protection Agency, Division of Surface Water, Wetland Ecology Group, Columbus, Ohio. Ohio EPA Technical Report WET/2006-1.
- Matthews, J.W. and Endress, A.G. 2008. Performance Criteria, Compliance Success, and Vegetation Development in Compensatory Mitigation Wetlands. *Environmental Management* 41(1), pp. 130-141.

- Reiss, K.C., Hernandez, E., Brown, M.T. 2009 Evaluation of permit success in wetland mitigation banking: a Florida case study. *Wetlands* 29(3), pp. 907-918.
- Sheldon, D., T. Hruby, P. Johnson, K. Harper, A. McMillan, T. Granger, S. Stanley, and E. Stockdale. 2005. *Wetlands in Washington State, Vol. 1: A Synthesis of the Science*. Washington State Department of Ecology Publication #05-06-006. Olympia, Washington.
- Spieles, D.J. 2005. Vegetation development in created, restored, and enhanced mitigation wetland banks of the United States. *Wetlands* 25(1), pp. 51-63.
- U.S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*. Environmental Laboratory ERDC/EL TR-08-13, Wetlands Regulatory Assistance Program, U.S. Army Corps of Engineers Engineer Research and Development Center, Vicksburg, Mississippi.
- U.S. Army Corps of Engineers. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, Wetlands Research Program, U.S. Army Corps of Engineers Engineer Research and Development Center, Vicksburg, Mississippi.
- WAC (Washington Administrative Code). November 2013. Washington State Legislature. Viewed online: <http://apps.leg.wa.gov/WAC/default.aspx>
- WDOE (Washington State Department of Ecology), U.S. Army Corps of Engineers Seattle District, and Environmental Protection Agency Region 10. 2006a. *Wetland Mitigation in Washington State Part 1 – Agency Policies and Guidance*. Ecology Publication No. 06-06-011a.
- WDOE (Washington State Department of Ecology), U.S. Army Corps of Engineers Seattle District, and Environmental Protection Agency Region 10. 2006b. *Wetland Mitigation in Washington State Part 2 – Developing Mitigation Plans*. Ecology Publication No. 06-06-011b.
- WDOE (Washington State Department of Ecology). 2008. *Making Mitigation Work. The Report of the Mitigation that Works Forum*. Ecology Publication No. 08-06-018.
- WDOE (Washington State Department of Ecology). 2010. *Puget Sound Watershed Characterization: Introduction to the Water Flow Assessment for Puget Sound, A Guide for Local Planners*. Ecology Publication No. 10-06-014.

9.4 Terrestrial Habitat and Conditions

- Adams, A.L., Recio, M.R., Robertson, Dickinson, B.C., K.M.J., and Van Heezik, Y. 2014. Understanding home range behavior and resource selection of invasive common brushtail possums (*Trichosurus vulpecula*) in urban environments. *Biological Invasions* 16(9), pp. 1791-1804.

- Azerrad, J.M. 2012. Management Recommendations for Washington's Priority Habitats and Species: Great Blue Heron (*Ardea herodias*). 3-1 to 3-18 in E. Larsen, J. M. Azerrad, N. Nordstrom, editors. Management Recommendations for Washington's Priority Species, Volume IV: Birds. Washington Department of Fish and Wildlife, Olympia, Washington, USA.
- BirdWeb. Electronic Reference. Available at: <http://www.birdweb.org/birdweb/> [Accessed June 27, 2016]
- City of Bellevue. 2003. Bellevue Critical Areas Update Best Available Science Paper: Wildlife.
- Federal Register. 11 May 2016, final rule designation of critical habitat for the Oregon Spotted Frog.
- Federal Register. Volume 79, No. 169, 29 August 2014, Threatened Status for Oregon Spotted Frog - final rule
- Ficetola, G.F., Padoa-Schioppa, E., De Bernardi, F. 2009. Influence of landscape elements in riparian buffer on the conservation of semiaquatic amphibians. *Conservation Biology* 23(1), pp. 114-123.
- Germaine, S. and B. Costentino. 2004. Screening Model for Determining Likelihood of Site Occupancy by Oregon Spotted Frogs (*Rana pretiosa*) in Washington State.
- Gilbert-Norton, L., R Wilson, JR Stevens, and KH Beard. 2010. A meta-analytic view of corridor effectiveness. *Conserv. Biol.* 24:660-668.
- Hayes, G. and G. Wiles. 2013. State of Washington Bat Conservation Plan.
- Hays, D. and R. Milner. 1999. Peregrine Falcon. In Larsen, E. J. Azzerrad, and N. Nordstrom Eds. Management Recommendations for Washington's Priority Species- Volume IV: Birds.
- Hays, D. and R. Milner. 2003. Purple Martin. In Larsen, E. J. Azzerrad, and N. Nordstrom Eds. Management Recommendations for Washington's Priority Species- Volume IV: Birds.
- Lewis, J. and J. Azerrad. 2003. Pileated Woodpecker. In Larsen, E. J. Azzerrad, and N. Nordstrom Eds. Management Recommendations for Washington's Priority Species- Volume IV: Birds.
- Lewis, J, R. Milner, and M. Whalen. 1999. Common Loon. In Larsen, E. J. Azzerrad, and N. Nordstrom Eds. Management Recommendations for Washington's Priority Species- Volume IV: Birds.

City of Bellevue Critical Areas Regulations Technical Report
Update to Best Available Science and Existing Conditions

- Lewis, J., M. Whalen, and R. Milner. 2003. Vaux's Swift. In Larsen, E. J. Azzerrad, and N. Nordstrom Eds. Management Recommendations for Washington's Priority Species- Volume IV: Birds.
- McAllister, Kelly R., Scott A. Richardson, and Derek W. Stinson. 1999. *Washington State recovery plan for the western pond turtle*. Olympia, WA: Washington Department of Fish and Wildlife.
- McKinney, M.L. 2008. Effects of urbanization of species richness: a review of plants and animals. *Urban ecosystems* 11(2), pp. 161-176.
- McKinney, A.M. and Goodell, K. 2010. Shading by invasive shrub species reduces seed production and pollinator services in a native herb. *Biol. Invasions* 12, pp. 2751-2763.
- Stanley, S., S. Grigsby, D. Booth, D. Hartley, R. Horner, T. Hrubby, J. Thomas, P. Bissonnette, J. Lee, R. Fuerstenberg, P. Olson, and G. Wilhere. 2011. Puget Sound Characterization, Volume 1: The Water Resources Assessments. Ecology Publication #11-06-016. Washington Department of Ecology, Olympia, Washington.
- Tremblay, MA and CC St Clair. 2009. Factors affecting the permeability of transportation and riparian corridors to the movements of songbirds in an urban landscape. *Journal of Applied Ecology* 46:1314-1322.
- USFWS (United States Fish and Wildlife Service). 2007. National bald Eagle Management Guidelines. 23 pgs.
- Washington Department of Fish and Wildlife. 2012. Threatened and Endangered Wildlife State of Washington Annual Report.
- Wilhere, G.F., T. Quinn, D. Gombert, J. Jacobson, and A. Weiss. 2013. A Coarse-scale Assessment of the Relative Value of Small Drainage Areas and Marine Shorelines for the Conservation of Fish and Wildlife Habitats in Puget Sound Basin. Washington Department Fish and Wildlife, Habitat Program, Olympia, Washington.
- Woodruff, K., and H. Ferguson. 2005. "Townsend's Big-Eared Bat." Management Recommendations for Washington's Priority Species.

9.5 Frequently Flooded Areas

- Federal Emergency Management Agency (FEMA). 1996. Q3 Flood Map King County, Washington.
- Federal Emergency Management Agency (FEMA). 2010. Flood Insurance Study King County, Washington and Incorporated Areas.

Federal Emergency Management Agency (FEMA). 2013. Flood Insurance Study King County, Washington and Incorporated Areas- Revised.

National Marine Fisheries Service (NMFS). 2008. Endangered Species Act- Section 7 Consultation Final Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation- Implementation of the National Flood Insurance Program in the State of Washington- Phase 1 Document Puget Sound Region.

9.6 Geologic Hazard Areas

Fisher, M.A., Hyndman, R.D., Johnson, S.Y., Brocher, T.M., Crosson, R.S., Wells, R. E., Calvert, A. J., and tenBrink, U.S. 2006. Crustal structure and earthquake hazards of the subduction zone in southwestern British Columbia and western Washington. In Earthquake Hazards of the Pacific Northwest Coastal and Marine regions, R. Kayen (editor), U.S. Geological Survey Professional Paper 1661-C, 28 pp.

Johnson S .Y., Dadisman, S.V., Childs, J.R., Stanley, W.D. 1999. Active tectonics of the Seattle fault and central Puget Lowland: implications for earthquake hazards, Geological Society of America Bulletin 111, 1042-1053

Liberty, Lee M. and Pratt, Thomas L. 2008. Structure of the Eastern Seattle Fault Zone, Washington State: New Insights from Seismic Reflection Data; Bulletin of the Seismological Society of America; vol. 98, no. 4, pp 1681-1695.

Pratt, T.L., Johnson, S.Y., Potter, C.J., and Stephenson, W, J. 1997. Seismic reflection images beneath Puget Sound, western Washington State: the Puget Lowland thrust sheet hypothesis, Journal of Geophysical Research 102(27) 469-27,490.

Palmer, Stephen P., Evans, Brian D., and Schasse, Henry W. 2002. Liquefaction Susceptibility of the Greater Eastside Area, King County, Washington; Washington Division of Geology and Earth Resources Geologic Map GM-48.

Sherrod, B. L. 2002. Late Quaternary Surface Rupture along the Seattle fault zone near Bellevue, Washington; (Abstract S21C-12) Eos transactions AGU 83, no.47 (Fall Meet Suppl.) S21C-12.

SR530 Landslide Commission. December 15, 2014. Final Report. Available at: http://www.governor.wa.gov/sites/default/files/documents/SR530LC_Final_Report.pdf [Accessed July 1, 2016]

ten Brink, U.S., Molzer, P.C., Fisher, M.A., Blakely, R.J., Bucknam, R.C., Parsons, T., Crosson, R.S., Creager, K.C. 2002. Subsurface geometry and evolution of the SFZ and the Seattle basin, Washington, Bulletin of the Seismological Society of America 92, 1737-1753.

9.7 Critical Aquifer Recharge Areas

City of Bellevue. 2016. Water System Plan Vol. 1 and 2.

Washington Department of Health. Electronic Reference. Available at:

<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/SourceWater/SourceWaterProtection#how> [Accessed July 1, 2016]

10 ACRONYMS AND ABBREVIATIONS

BAS.....	Best Available Science
CAO	Critical Areas Ordinance
CARA.....	Critical Aquifer Recharge Area
City.....	City of Bellevue
Corps	U.S. Army Corps of Engineers
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
FEMA.....	Federal Emergency Management Agency
FFA.....	Frequently Flooded Areas
FWHCA.....	Fish and Wildlife Habitat Conservation Areas
GMA.....	Growth Management Act
LUC.....	Bellevue Land Use Code
NFIP	National Flood Insurance Program
PHS.....	Priority Habitats and Species
SEPA	State Environmental Policy Act
State.....	Washington State
SSWSP.....	Storm and Surface Water System Plan
WAC.....	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife

**CITY OF BELLEVUE CRITICAL AREAS
REGULATIONS TECHNICAL REPORT- PART 2**

Gap Analysis

Prepared for:



Development Services Department
450 110th Ave. NE
P.O. Box 90012
Bellevue, WA 98009

Prepared by:



750 Sixth Street South
Kirkland, WA 98033

p 425.822.5242
f 425.827.8136
watershedco.com



18300 NE Union Hill Road
Suite 200
Redmond, Washington, 98052

S-A

August 2016

The Watershed Company Reference Number: 160349



Watershed Company
10000
10000
10000



TABLE OF CONTENTS

	Page #
1 Introduction	1
1.1 Overview and Purpose.....	1
1.2 Document Organization	1
2 Scope and Purpose (Part 20.25H, I)	2
3 Designation of Critical Areas and Dimensional Standards (Part 20.25H, II)	2
4 Use and Development in the Critical Areas Overlay District (Part 20.25H, III)	4
5 Streams (Part 20.25H, IV)	5
6 Wetlands (Part 20.25H, V)	7
7 Shorelines (Part 20.25H, VI)	11
8 Geologic Hazard Areas (Part 20.25H, VII)	11
9 Habitat Associated with Species of Local Importance (Part 20.25H, VIII)	13
10 Areas of Special Flood Hazard (Part 20.25H, IX)	14
11 Reasonable Use (Part 20.25H, X)	15
12 General Mitigation and Restoration Requirements (Part 20.25H, XI)	15
13 Critical Areas Report (Part 20.25H, XII)	15
14 References	17
15 Acronyms and Abbreviations	17

LIST OF TABLES

Table 2-1. Review summary: Scope and Purpose	2
Table 3-1. Review summary: Designation of Critical Areas and Dimensional Standards.....	2
Table 4-1. Review summary: Use and Development in the Critical Areas Overlay District	4
Table 5-1. Review summary: Streams.....	5
Table 6-1. Review summary: Wetlands	7
Table 6-2. Standard buffer widths based on Ecology guidance (Ecology 2015).....	8
Table 6-3. Recommended compensatory wetland mitigation ratios	9
Table 7-1. Review summary: Shorelines	11
Table 8-1. Review summary: Geologic Hazard Areas	11

Table 9-1.	Review summary: Habitat Associated with Species of Local Importance..	13
Table 10-1.	Review summary: Areas of Special Flood Hazard	14
Table 11-1.	Review summary: Reasonable Use.....	15
Table 12-1.	Review summary: General Mitigation and Restoration Requirements	15
Table 13-1.	Review summary: Critical Areas Report	16

1 INTRODUCTION

1.1 Overview and Purpose

With passage of the Growth Management Act (GMA), local jurisdictions throughout Washington State, including the City of Bellevue (City), were required to develop policies and regulations to designate and protect critical areas. Critical areas, as defined by the GMA (Revised Code of Washington [RCW] 36.70A.030(5)), include wetlands, areas with a critical recharging effect on aquifers used for potable water (commonly referred to as critical aquifer recharge areas), fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas.

An ongoing requirement of the GMA is for local jurisdictions to periodically review and evaluate their adopted critical areas policies and regulations. The City last completed an update of its critical areas ordinance in 2006 (Ordinance No. 5680). The City's critical areas regulations are currently codified in Part 20.25H LUC (Land Use Code), Critical Areas Overlay District.

When updating critical areas policies and regulations, jurisdictions must include the best available science (BAS). Any deviations from science-based recommendations should be identified, assessed and explained (Washington Administrative Code [WAC] 365-195-915). In addition, jurisdictions are to give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

This document is the second part of a two-part technical report. Part 1, City of Bellevue Critical Areas Regulations: Update to Best Available Science and Existing Conditions (BAS Update), provides an overview of the changes in science relevant to the functions and values of critical areas since the previous critical areas ordinance update in 2006.

The purpose of this document is to provide a review of the City's current critical areas regulations, noting gaps where existing regulations may not be consistent with current BAS, the GMA, and/or its implementing rules or guidance. This document does not attempt to identify every instance where existing critical areas regulations might be amended, but instead focuses on identifying the most significant potential amendments stemming from updates to BAS, changes in agency guidance applicable to regulation of a specific resource, or changes in existing conditions since the last review. The primary intention of this gap analysis is to help guide the update of the City's critical areas regulations.

1.2 Document Organization

This document mirrors the organization of Part 20.25H LUC, Critical Areas Overlay District. Each subpart of Part 20.25H LUC, Critical Areas Overlay District, is reviewed in a corresponding section of this report.

Each section of this report features a review summary table that lists all the LUC sections in the subpart under review. For each LUC section, the review summary table then identifies any potential gaps where the existing critical areas regulations may not fully meet current BAS, the GMA, and/or its implementing rules or guidance. If any potential gaps are identified, more detailed discussion follows the review summary table.

2 SCOPE AND PURPOSE (PART 20.25H, I)

This subpart includes basic introductory content. No updates are recommended.

Table 2-1. Review summary: Scope and Purpose

LUC Section	Title	Review Comment / Recommendations
20.25H.005	Scope	None.
20.25H.010	Purpose	None.
20.25H.015	Applicable procedure	None.
20.25H.020	Submittal requirements	None.

3 DESIGNATION OF CRITICAL AREAS AND DIMENSIONAL STANDARDS (PART 20.25H, II)

This subpart provides information on the designation of critical areas and dimensional standards. Key information includes a table in LUC 20.25H.025 that directs code users to additional information for identifying critical areas, as well as a table in LUC 20.25H.035.A that summarizes buffer widths and structure setbacks by critical area type. Recommendations for this subpart primarily concern clarifying how the City's critical areas regulations address some of the GMA critical area types.

Table 3-1. Review summary: Designation of Critical Areas and Dimensional Standards

LUC Section	Title	Review Comment / Recommendations
20.25H.025	Designation of critical areas	<ul style="list-style-type: none"> • Clarify applicability of fish and wildlife habitat conservation areas. • Clarify applicability of frequently flooded areas. • Clarify applicability of critical aquifer recharge areas.
20.25H.030	Identification of critical area	None.
20.25H.035	Critical area buffers and structure setbacks	<ul style="list-style-type: none"> • Update table to reflect recommendations specified in other sections of this document.
20.25H.040	Standards for modifying non-critical area setbacks	None.
20.25H.045	Development density/intensity	None.

LUC 20.25H.025, Designation of critical areas

Fish and wildlife habitat conservation areas

As mentioned in the introduction, one of the five types of critical areas under GMA is “fish and wildlife habitat conservation areas” (FWHCAs). This term is not found in Part 20.25H LUC, Critical Areas Overlay District, and is not defined in Chapter 20.50 LUC, Definitions. However, the Environment Element of the Bellevue Comprehensive Plan (City of Bellevue 2015) states that “Designated fish and wildlife habitat conservation areas in Bellevue include riparian corridors, wetlands, naturally occurring ponds, lakes and shorelines, and steep slopes over 40 percent. Other lands may be given special consideration for fish and wildlife habitat if there is a primary association with an endangered, threatened or sensitive species.”

The City should consider specifically addressing the term “fish and wildlife habitat conservation areas” in the City’s critical areas regulations, in this LUC section or elsewhere. Per WAC 365-196-500(3), development regulations must be consistent with and implement the comprehensive plan. Currently, the relationship of the FWHCAs discussed in the City’s comprehensive plan to the City’s critical areas regulations is unclear. Additionally, WAC 365-195-915(1)(a) states that cities should address the specific policies and development regulations adopted to protect the functions and values of the critical areas on the record. Without a clear definition of FWHCAs, the specific critical areas regulations intended to designate and protect FWHCAs are not explicit.

Frequently flooded areas

Another GMA critical area type is “frequently flood areas.” This term is not found in Part 20.25H LUC, Critical Areas Overlay District, and is not defined in Chapter 20.50 LUC, Definitions. However, the Environment Element of the City’s comprehensive plan uses the term.

Frequently flooded areas are addressed by subpart IX, Areas of Special Flood Hazard. Specifically addressing the term “frequently flooded areas” in the City’s critical areas regulations, in this LUC section or elsewhere, is recommended to improve consistency with the comprehensive plan and to better help the City demonstrate compliance with WAC 365-195-915(1)(a).

Critical aquifer recharge areas

Regarding another GMA critical area type, “critical aquifer recharge areas,” (CARAs) the Environment Element of the City’s comprehensive plan states that “The city regulates land use and development activities to protect public health, safety, and welfare as well as certain critical areas – such as ... aquifer recharge areas... – that are especially susceptible to the negative impacts of development.” CARAs were addressed in BAS documents prepared prior to adoption of the critical areas regulations currently in effect, but are not addressed in Part 20.25H LUC, Critical Areas Overlay District. If the City intends to continue without a CARA designation, a statement in the critical areas regulations indicating that CARAs are not

designated would increase clarity on this issue and better help the City demonstrate compliance with WAC 365-195-915(1)(a).

LUC 20.25H.035, Critical area buffers and structure setbacks

Critical areas buffer table

The table in this section provides a summary of other sections in the code. As these other sections are amended per the recommendations specified in other sections of this document, this table will need to be updated.

4 USE AND DEVELOPMENT IN THE CRITICAL AREAS OVERLAY DISTRICT (PART 20.25H, III)

This subpart identifies uses and development allowed within critical areas, their buffers, and associated setbacks. Performance standards are also provided. Minor updates to regulations in this subpart are recommended.

Table 4-1. Review summary: Use and Development in the Critical Areas Overlay District

LUC Section	Title	Review Comment / Recommendations
20.25H.050	Uses and development in the Critical Areas Overlay District	None.
20.25H.055	Uses and development allowed within critical areas – Performance standards	<ul style="list-style-type: none"> • Update culvert design guidance document referenced in LUC 20.25H.055.C.3.e. • Revise language for trails on single-family lots in LUC 20.25H.055.C.3.f.
20.25H.065	Uses and development within critical area buffer or critical area structure setback not allowed pursuant to 20.25H.055	None.

Part 20.25H.055, Uses and development allowed within critical areas – Performance standards

Culvert design

LUC 20.25H.055.C.3.e currently indicates that, “new culverts shall be designed in accordance with the Washington State Department of Fish and Wildlife document ‘Design of Road Culverts for Fish Passage’ now or hereafter amended.” The most recent version of this document (2013) is titled Water Crossings Design Guidelines. This regulation should reference the updated document.

Private non-motorized trails

LUC 20.25H.055.C.3.f states that in stream and wetland buffers on single-family lots, trails shall not be generally parallel to the stream or wetland edge closer than a distance of 25 feet. Guidance from the Washington State Department of Ecology (Ecology) currently indicates that walkways and trails should be located in the outer 25 percent of a wetland buffer area. This

guidance should also apply to streams. This language should be revised to limit trails parallel to wetlands and streams to the outer 25 percent of the buffer, and in no case closer than 25 feet. The City could also consider extending this provision to apply to other non-motorized trails on multi-family lots or public lands.

5 STREAMS (PART 20.25H, IV)

This subpart includes a variety of regulations related to the designation and protection of streams. Key updates to BAS related to streams identify the significant impacts of untreated stormwater runoff and the value of treatment, such as low impact development; recognize the importance of protecting all streams, including non-fish bearing streams; support the importance of a densely vegetated buffer; and recognize the significance of culvert replacement standards that support the passage of sediment and wood. The BAS update does not change the range of recommended buffer widths. Several recommendations are provided to better align City stream regulations with current BAS and common statewide practices, such as using the Permanent Water Typing System and measuring buffers from the ordinary high water mark.

Table 5-1. Review summary: Streams

LUC Section	Title	Review Comment / Recommendations
20.25H.075	Designation of critical area and buffers	<ul style="list-style-type: none"> • Consider using the Permanent Water Typing System and applying standards from the Interim Water Typing System for additional clarification. • Consider typically measuring stream buffers from the ordinary high water mark, with the possible exception of streams located in ravines. • For buffers on eroding stream banks, require recent documentation of top-of-bank (or ordinary high water mark).
20.25H.080	Performance standards	<ul style="list-style-type: none"> • Apply performance standards to all streams. • Reference stormwater treatment requirements.
20.25H.085	Mitigation and monitoring – Additional provisions	None.
20.25H.090	Critical areas report – Additional provisions	<ul style="list-style-type: none"> • If the City elects to measure stream buffers from the ordinary high water mark, increase minimum stream buffers to 25 feet in all cases.

LUC 20.25H.075, Designation of critical area and buffers

Designation of streams

LUC 20.25H.075.B sets forth a system for designating four types of streams. This system is different from the Permanent Water Typing System provided in WAC 222-16-030. Use of the Permanent Water Typing System is not required; however, the City could consider using the Permanent Water Typing System to align with state methodology. The Permanent Water Typing System was intended to be used where stream type mapping is available. Water typing has been mapped by the Washington State Department of Natural Resources for most streams

in Bellevue; however, some streams are mapped as “unknown” and other streams may not be mapped at all. The City could also consider applying standards from the Interim Water Typing System (WAC 222-16-031) to provide additional physical criteria that describe fish-bearing, perennial, and seasonal stream characteristics.

Measurement of stream buffers

Under LUC 20.25H.075.C.1, stream buffers are typically measured from top of bank. Measuring stream buffers from the ordinary high water mark (OHWM) is a more common approach. Measuring stream buffers from the OHWM rather than top of bank could be beneficial in several respects. For one, measuring stream buffers from the OHWM would provide for an approach consistent with the City’s Shoreline Master Program (SMP). Under the SMP, buffers from shoreline water bodies are measured from the OHWM. Additionally, measuring buffers from the OHWM would better align with the regulatory provisions of other agencies. For example, the U.S. Army Corps of Engineers’ limit of jurisdiction for streams is the OHWM. Last, due to the widespread use of the OHWM in the regulatory setting, extensive guidance is available for making accurate and repeatable delineations of the OHWM. Accordingly, we recommend the City consider typically measuring stream buffers from the OHWM. An exception might be where a stream is located in a ravine. In such cases, the City might consider requiring a buffer measured from the top of the ravine slope.

Buffers on eroding stream bank

LUC 20.25H.075.C.1.e allows stream buffers and setbacks to be measured from “a fixed location representing the historic location of the top-of-bank” if an applicant demonstrates that the location of the top-of-bank has changed over time as a result of natural stream processes. Streams are dynamic natural features that should be expected change over time. As discussed in the 2005 BAS and supported in the BAS Update, stream buffers are intended to allow for this dynamic condition and to protect other functions and processes related to water quality, habitat, and flow processes and functions. Where erosion results in changes to the stream location, new development should be based on recent, rather than historic, conditions. Therefore, we recommend revising this regulation to require that the applicant provide a delineation of the top-of-bank (or OHWM, as discussed above) that was prepared in the preceding five years.

LUC 20.25H.080, Performance standards

Additional performance standards

LUC 20.25H.080.A includes six performance standards for development on sites with a Type S or F stream or associated buffer. Because updated BAS emphasizes the significance of non-fish-bearing streams on downstream habitat and water quality conditions, the stream performance standards should be expanded to apply to all stream types, not just Type S or Type F. These standards are essentially the same as those for development on sites with a wetland or wetland buffer in LUC 20.25H.100. As discussed below in Section 6, Wetlands, recent Ecology guidance includes additional impact minimization measures that address stormwater treatment. The significant effects of untreated stormwater and the benefits of stormwater treatment are

recognized in the BAS Update. LUC 24.06, Storm and Surface Water Utility Code, and code requirements associated with the proposed Low Impact Development Principles Project could be referenced here.

LUC 20.25H.090, Critical areas report – Additional provisions

Limitation on modifications

LUC 20.25H.090.A includes minimum stream buffers ranging from 10 to 25 feet. If the City elects to measure stream buffers from the OHWM rather than top-of bank, we would recommend that the City also increase the minimum stream buffers in LUC 20.25H.090 to a minimum of 25 feet in all cases to conform to a minimum functional buffer width.

6 WETLANDS (PART 20.25H, V)

Since the City’s previous critical areas update in 2006, Ecology has comprehensively updated its guidance for local wetland regulations. Consequently, a number of updates to the City’s wetland critical area regulations are recommended. Notable recommendations for the regulations of wetlands include updating the wetland rating system and providing more detailed mitigation regulations.

Table 6-1. Review summary: Wetlands

LUC Section	Title	Review Comment / Recommendations
20.25H.095	Designation of critical area and buffers	<ul style="list-style-type: none"> Require wetlands be delineated using the approved federal wetlands delineation manual and applicable regional supplements. Update this section to classify wetlands based on the most recent version of the Washington State Wetland Rating System for Western Washington. Update the standard wetland buffers to work with the most recent version of the Washington State Wetland Rating System for Western Washington.
20.25H.100	Performance standards	<ul style="list-style-type: none"> Update performance standards to reference applicable city-wide stormwater standards.
20.25H.105	Mitigation and monitoring – Additional provisions	<ul style="list-style-type: none"> Consider providing more explicit mitigation ratios. City should clearly establish if and when the use of third-party mitigation programs is permitted. Consider allowing mitigation based on the credit/debit method.
20.25H.110	Critical area report – Additional provisions	<ul style="list-style-type: none"> For critical area reports, require wetland classification based on the most recent version of the Washington State Wetland Rating System for Western Washington.

LUC 20.25H.095, Designation of critical area and buffers

Delineation methodology

The City’s critical areas regulations currently do not address the methodology for delineating wetlands. This section would be an appropriate location for the City to require that wetlands be delineated using the approved federal wetlands delineation manual and applicable regional supplements. Specifically, the Corps of Engineers Wetlands Delineation Manual (U.S. Army Corps of Engineers 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region Version 2.0 (U.S. Army Corps of Engineers 2010) should be the applied methodology.

Wetland rating system

This section currently requires the classification of wetlands based on the Washington State Wetland Rating System for Western Washington, Ecology Publication Number 04-06-025, published August 2004. Ecology updated this publication in 2014. Accordingly, this section should now require the classification of wetlands based on the Washington State Wetland Rating System for Western Washington: 2014 Update, Ecology Publication Number #14-06-029. This will include amending the wetland category descriptions in LUC 20.25H.095.B.1 through LUC 20.25H.095.B.4.

Standard wetland buffer widths

The updated wetland rating system described in the previous paragraph included revised wetland scoring scales. The City’s standard wetland buffer widths in LUC 20.25H.095.C.1.a.i should be updated to work with the updated wetland rating system (Table 6-2). Standard wetland buffer widths in the existing code are generally consistent with those proposed by Ecology. It should be noted that use of the standard buffer assumes “that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer should either be planted to create the appropriate plant community or the buffer should be widened to ensure that adequate functions of the buffer are provided.” The City currently addresses the quality of vegetation within the buffer through its Critical Areas Report evaluation process (LUC 20.25H.230).

Table 6-2. Standard buffer widths based on Ecology guidance (Ecology 2015)

Wetland Category and Type	Buffer width (in feet) based on habitat score (3-9)			
	3-4	5	6-7	8-9
I: Bogs and wetlands of high conservation value		190		225
I: All others	75	105	165	225
II	75	105	165	225
III	60	105	165	225
IV			40	

LUC 20.25H.100, Performance standards

Additional performance standards

LUC 20.25H.100 includes six performance standards for development on sites with a wetland or wetland critical area buffer. Ecology guidance in Wetland Guidance for CAO Updates, Western Washington Version (Ecology 2016) includes additional impact minimization measures associated with low impact development and stormwater control and treatment (see Appendix A; Section XX.050, Wetland Buffers; Table XX.2 in Ecology 2016). Given the updated understanding of the significance of stormwater treatment to the health of aquatic species including salmonids, LUC 24.06, Storm and Surface Water Utility Code, and code requirements associated with the proposed Low Impact Development Principles Project could be referenced here.

LUC 20.25H.105, Mitigation and monitoring – Additional provisions

Mitigation ratios

LUC 20.25H.095.C sets forth mitigation ratios for wetland creation or restoration. The current ratios are in-line with Ecology guidance. However, Ecology guidance also now includes mitigation ratios for both wetland rehabilitation and enhancement, as well as ratios for a combination of approaches. The City’s current code provides opportunities for the Director to use discretion to adjust mitigation ratios for rehabilitation or enhancement activities. The City should consider providing more explicit mitigation ratios for rehabilitation and enhancement, as provided in Ecology guidance (Table 6-3).

Table 6-3. Recommended compensatory wetland mitigation ratios

Category and Type of Wetland Impacts	Re-establishment or Creation	Re-habilitation Only	Re-establishment or Creation (R/C) and Rehabilitation (RH)	Re-establishment or Creation (R/C) and Enhancement (E)	Enhancement Only
Category I Bog or Natural Heritage Site	Not allowed	6:1 Rehabilitation of a bog	Not allowed	Not allowed	Case by case
Category I – based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1

Third-party mitigation

The existing code does not explicitly allow or prohibit the use of third-party mitigation, such as mitigation banks or in-lieu fee programs. Mitigation banks and in-lieu fee programs provide flexibility for compensatory mitigation. The potential advantages and disadvantages to allowing for the use of mitigation bank and in-lieu fee credits are discussed in the BAS Update. Certified wetland mitigation banks and in-lieu fee programs available for use by City residents are also discussed in the BAS Update. The current code includes a provision in Part 20.25H.XI that allows for “innovative mitigation,” but given the state and federal preference for the use of mitigation banks and in-lieu fee programs, as well as the recent development of these mitigation opportunities in the Cedar-Sammamish watershed, the City should clearly establish if and when the use of these programs is permitted.

Credit/Debit method

The Wetlands subpart does not currently explicitly allow use of the credit/debit method, a functions-based alternative to set mitigation ratios (Hruby 2012). While other local jurisdictions still use set mitigation ratios, many also allow the use of the credit/debit method to enable use of mitigation banks and in-lieu fee programs. In the Ecology publication Wetland Guidance for CAO Updates, Western Washington Version (Ecology 2016), the example wetlands code includes the following regulation that allows the use of the credit/debit method. The City could include a similar regulation in this LUC section.

I. Credit/Debit Method. To more fully protect functions and values, and as an alternative to the mitigation ratios found in the joint guidance Wetland Mitigation in Washington State Parts I and II (Ecology Publication #06-06-011a-b, Olympia, WA, March 2006), the administrator may allow mitigation based on the “credit/debit” method developed by the Department of Ecology in Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report, (Ecology Publication #10-06-011, Olympia, WA, March 2012, or as revised).

Ecology issued the credit/debit tool in 2012 before the current 2014 wetland rating system was completed. As a result, use of the credit/debit method effectively requires two separate wetland ratings: one for buffer determination, with the 2014 rating system; and one for credit-debit calculation, with the credit/debit method rating system. While the option to use the credit/debit method is based on a wetland functions analysis and provides more flexibility for applicants, the method is inherently more complex than use of mitigation ratios.

LUC 20.25H.110, Critical area report – Additional provisions

Functional evaluation

LUC 20.25H.110.B.3 requires a functional evaluation for the wetland and adjacent buffer using a local or state agency staff-recognized method. This provision should be revised to require the classification of wetlands based on the Washington State Wetland Rating System for Western Washington: 2014 Update, Ecology Publication Number #14-06-029.

7 SHORELINES (PART 20.25H, VI)

The City's comprehensive update of its SMP is currently in progress. An SMP must include regulations for the protection of shoreline critical areas, and pursuant to RCW 90.58.090, those regulations must provide a level of protection to shoreline critical areas "at least equal" to a jurisdiction's general critical areas regulations. The City's most recent draft SMP incorporates the City's general critical areas regulations by reference. Conformance amendments associated with the draft SMP will modify Part 20.25H LUC, Critical Areas Overlay District, as necessary to ensure alignment between the SMP and Part 20.25H LUC.

Table 7-1. Review summary: Shorelines

LUC Section	Title	Review Comment / Recommendations
20.25H.115	Designation of Critical Area and Buffers.	None.
20.25H.118	Mitigation and Monitoring – Additional Provisions.	None.
20.25H.119	Critical Areas Report – Additional Provisions.	None.

8 GEOLOGIC HAZARD AREAS (PART 20.25H, VII)

Geologic hazard areas regulations should be updated to incorporate current BAS. Specific considerations are discussed below.

Table 8-1. Review summary: Geologic Hazard Areas

LUC Section	Title	Review Comment / Recommendations
20.25H.120	Designation of critical area and buffers	<ul style="list-style-type: none"> • Include seismic hazard areas in critical areas designation for purposes of disclosure only. • Consider revising the minimum toe-of-slope setback verbiage, currently a minimum of 75 feet, to site-specific geotechnical studies to reflect uniqueness of individual landslide hazard sites and that adjustments in the toe-of-slope setback may be required depending on site topography and conditions that may be conducive to fast moving, shallow debris slides and flows.
20.25H.125	Performance standards – Landslide hazards and steep slopes	<ul style="list-style-type: none"> • Consider adjusting performance standards to further address measures that protect habitat.
20.25H.130	Performance standards – Coal mine hazard area	None.
20.25H.135	Mitigation and monitoring – Additional provisions for landslide hazards and steep slopes	None.

LUC Section	Title	Review Comment / Recommendations
20.25H.140	Critical areas report – Additional provisions for landslide hazards and steep slopes	None.
20.25H.145	Critical areas report – Approval of modification	None.

LUC 20.25H.120, Designation of critical area and buffers

Seismic hazard areas

According to WAC 365-190-120, “Seismic hazard areas must include areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement or subsidence, soil liquefaction, surface faulting, or tsunamis.” The City should designate areas of known faults and Holocene displacement, as well as mapped areas of liquefaction susceptibility as seismic hazard areas. 64.06 RCW addresses information required in a seller’s real estate disclosure form. This form requires disclosure of any shorelines, wetlands, floodplains, or critical areas on the property. By designating seismic hazards as critical areas, known seismic hazards would be disclosed to potential buyers.

Because more information is likely to be gained on the limits of the Seattle fault zone and the potential for surface fault rupture, the City should consider referencing these updated studies that may better delineate limits of the Seattle fault zone, as well as the recurrence intervals of earthquake events.

Toe-of-slope setback

Recent landslide events, such as the March 2014 Oso Landslide, have reinforced the uncertainties of runout distances associated with fast-moving debris slides or flows. This in no way suggests an Oso-type landslide is likely in the Bellevue area, but the concept of the distance a fluid, debris filled soil mass may travel does apply. This concern is related to the setback distances from the toes of slopes of landslide hazard areas. The determination of setback distances from the toe of landslide hazard areas should be based on individual site characteristics that would include topography and geomorphology that occur at each site. Of particular concern are slopes with incised drainages or ravines that are sources of accumulated alluvium and slope debris and provide a source area for a debris flow or slide under specific circumstances.

LUC 20.25H.125, Performance standards –Landslide hazards and steep slopes

Protection of habitat on steep slopes

The City currently regulates steep slopes for habitat, and the City’s recently updated comprehensive plan includes slopes over 40 percent in the definition of Fish and Wildlife

Habitat Conservation Areas. The City should consider adjusting the performance standards in LUC 20.25H.125 to better clarify the regulation of steep slopes for the conservation of habitat.

9 HABITAT ASSOCIATED WITH SPECIES OF LOCAL IMPORTANCE (PART 20.25H, VIII)

This subpart designates 23 species of local importance and features associated regulations, including requirements for a habitat assessment. Recommendations for this subpart are minor, and include clarifying when use of the Functional Assessment Model is required.

Table 9-1. Review summary: Habitat Associated with Species of Local Importance

LUC Section	Title	Review Comment / Recommendations
20.25H.150	Designation of critical area	<ul style="list-style-type: none"> Consider referencing the state's priority habitats and species list for species of local importance.
20.25H.155	Uses in habitat for species of local importance	None.
20.25H.160	Performance standards	None.
20.25H.165	Critical areas report – Additional provisions	<ul style="list-style-type: none"> Consider adding language that clarifies when use of the Functional Assessment Model is required.
20.25H.170	Process to identify additional species of local importance	None.

LUC 20.25H.150, Designation of critical area

Species of local importance

The existing provisions in this LUC section identify 23 species of local importance. Several of these are not designated as priority species by Washington State, and specific conservation measures for the species may not be necessary. In order to ensure that the designation of species of local importance remains current with the most recent scientific understanding over time, the City should consider listing those species that occur in Bellevue based on the state's list of priority species, as updated.

LUC 20.25H.165, Critical areas report – Additional provisions

Habitat assessment

Per the existing provisions of this LUC section, a critical area report to modify the performance standards for habitat for species of local importance must include a habitat assessment. The required elements of a habitat assessment are specified in the code, and do not include the City of Bellevue Functional Assessment Model (COB FAM), a tool developed in 2009 to provide a standardized, reproducible means of evaluating habitat in an urban or urbanizing setting. The model allows users to rate habitat on a property based on its potential to support species of local importance and other wildlife. Although the use of the COB FAM is not specified in the code, it has been common practice to include the COB FAM in habitat assessments. The City

should modify LUC 20.25H.165.A to clarify if and when use of the COB FAM is required as part of a habitat assessment.

10 AREAS OF SPECIAL FLOOD HAZARD (PART 20.25H, IX)

This subpart includes a suite of regulations related to development in the 100-year floodplain. Most of these regulations are intended to protect human health and safety. Recommendations are related to forthcoming updates to flood publications and to habitat assessments prepared to comply with the National Marine Fisheries Service biological opinion.

Table 10-1. Review summary: Areas of Special Flood Hazard

LUC Section	Title	Review Comment / Recommendations
20.25H.175	Designation of critical area	<ul style="list-style-type: none"> Consider revising the language in LUC 20.25H.175.A.2, as well as other language in this LUC section, to ensure a clear transition to new flood publications.
20.25H.180	Development in the area of special flood hazard	<ul style="list-style-type: none"> Highlight that the City will require floodplain developments to meet National Flood Insurance Program requirements related to the protection of floodplain ecological functions.

LUC 20.25H.175, Designation of critical area

Areas identified on the flood insurance rate map(s)

LUC 20.25H.175.A.2 indicates that areas of special flood hazard are “areas identified by the Federal Insurance Administration in a scientific and engineering report entitled The Flood Insurance Study for Bellevue dated December 1978, with accompanying flood insurance maps(s) and any revisions thereto.” These publications are in the process of being updated. To avoid confusion about what publications will apply once the updates have been finalized, we recommend revising the language in this regulation, as well as other language in this LUC section, to ensure a clear transition to the new flood publications.

LUC 20.25H.180, Development in the area of special flood hazard

Habitat assessment

In order to comply with the 2008 National Marine Fisheries Service biological opinion related to the implementation of the National Flood Insurance Program, it is required to either amend regulations to protect floodplain functions or require habitat assessments for development in the floodway or floodplain. Through either approach, the City must ensure that development within the Special Flood Hazard Area (100-year floodplain) and riparian buffer zone, which extends 250 feet from the ordinary high water mark where a flood feature is present, does not adversely affect water quality, water quantity, flood volumes, flood velocities, spawning substrate, or floodplain refugia for listed salmonids. The City currently requires floodplain habitat assessments, but this requirement is not codified. The City should highlight in this LUC

section that the City will require floodplain developments to meet National Flood Insurance Program requirements related to the protection of floodplain ecological functions.

11 REASONABLE USE (PART 20.25H, X)

State guidance indicates that critical areas regulations must include provisions that allow for “reasonable use” of properties constrained by the presence of critical areas. LUC 20.25H.190 through LUC 20.25H.205 provide such provisions. No updates are recommended.

Table 11-1. Review summary: Reasonable Use

LUC Section	Title	Review Comment / Recommendations
20.25H.190	Reasonable use exception – Purpose	None.
20.25H.195	Reasonable use exception – Process	None.
20.25H.200	Reasonable use exception – Applicability	None.
20.25H.205	Reasonable use exception – Performance standards	None.

12 GENERAL MITIGATION AND RESTORATION REQUIREMENTS (PART 20.25H, XI)

This subpart sets forth general requirements for mitigation and restoration, with the majority of the content addressing the required content for mitigation and restoration plans. No updates to this subpart are recommended.

Table 12-1. Review summary: General Mitigation and Restoration Requirements

LUC Section	Title	Review Comment / Recommendations
20.25H.210	Applicability	None.
20.25H.215	Mitigation sequencing	None.
20.25H.220	Mitigation and restoration plan requirements	None.
20.25H.225	Innovative mitigation	None.

13 CRITICAL AREAS REPORT (PART 20.25H, XII)

This subpart features regulations associated with critical areas reports, such as required content. No updates to this subpart are recommended.

City of Bellevue Critical Areas Regulations
 Gap Analysis

Table 13-1. Review summary: Critical Areas Report

LUC Section	Title	Review Comment / Recommendations
20.25H.230	Critical areas report – Purpose	None.
20.25H.235	Critical areas report – Review process	None.
20.25H.240	Critical areas report – Limitation on modifications	None.
20.25H.245	Incorporation of best available science	None.
20.25H.250	Critical areas report – Submittal requirements	None.
20.25H.255	Critical areas report – Decision criteria	None.
20.25H.260	Critical areas report – Assurance devices	None.
20.25H.265	Critical areas report – City technical review	None.
20.25H.270	Critical areas report – Independent third-party review	None.

14 REFERENCES

- City of Bellevue. 2015. City of Bellevue Comprehensive Plan.
- U.S. Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, Wetlands Research Program, U.S. Army Corps of Engineers Engineer Research and Development Center, Vicksburg, Mississippi.
- U.S. Army Corps of Engineers. 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). Environmental Laboratory ERDC/EL TR-08-13, Wetlands Regulatory Assistance Program, U.S. Army Corps of Engineers Engineer Research and Development Center, Vicksburg, Mississippi.
- Hruby, T. 2012. Calculating Credits and Debits for Compensatory Mitigation in Wetlands in Western Washington. Publication #10-06-011.
- Washington State Department of Ecology. 2016. Wetland Guidance for CAO Updates, Western Washington Version. Publication No. 16-06-001. Shorelands and Environmental Assistance Program, Washington State Department of Ecology, Olympia, Washington.

15 ACRONYMS AND ABBREVIATIONS

BAS.....	Best available science
BAS Update.....	City of Bellevue Critical Areas Regulations: Update to Best Available Science and Existing Conditions
CARA.....	Critical aquifer recharge area
City	City of Bellevue
Ecology	Washington State Department of Ecology
FWHCA.....	Fish and wildlife habitat conservation area
GMA.....	Growth Management Act
LUC.....	Land Use Code
OHWM.....	Ordinary high water mark
RCW.....	Revised Code of Washington
SMP.....	Shoreline Master Program
WAC	Washington Administrative Code

REFERENCES

Alford, C. P., & Smith, P. M. (2012). The role of emotion in the development of psychopathology. *Journal of Personality and Social Psychology*, 103, 1-12.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed., text revision). Washington, DC: Author.

American Psychological Association. (2010). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2012). *Diagnostic and statistical manual of mental disorders* (5th ed., text revision). Washington, DC: Author.

American Psychological Association. (2013). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2014). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2015). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2016). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2017). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2018). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2019). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2020). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2021). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

American Psychological Association. (2022). *Handbook of emotion* (2nd ed., pp. 1-12). Washington, DC: Author.

15 ACRONYMS AND ABBREVIATIONS

1. American Psychological Association (APA)

2. American Psychiatric Association (APA)

3. American Psychological Association (APA)

4. American Psychological Association (APA)

5. American Psychological Association (APA)

6. American Psychological Association (APA)

7. American Psychological Association (APA)

8. American Psychological Association (APA)

9. American Psychological Association (APA)

10. American Psychological Association (APA)

11. American Psychological Association (APA)

12. American Psychological Association (APA)

13. American Psychological Association (APA)

14. American Psychological Association (APA)

15. American Psychological Association (APA)

**City of Bellevue SMP
May 18, 2015 Conformance Amendment + CAO Update Amendments**

In this document, proposed Critical Areas Overlay (CAO) Update Amendments have been added to the Conformance Amendment that was adopted by Resolution No. 8922 as part of the Shoreline Master Program (SMP) Update. This approach is intended to ensure consistency between the SMP and CAO Updates, which both require state action to become effective. Red-line and strike draft format has been used to identify proposed modifications to the adopted SMP Conformance Amendment and new updates that are required to the CAO. Numbered sections of this document reflect amendments that were previously adopted in Resolution No. 8922 as part of the SMP Conformance Amendments. Amendments identified as a "New CAO Update Section" are the ones currently before the City Council to accomplish the limited update to the CAO that is required by state law. Section numbers will be updated to be sequential prior to final City Council action.

Section 1. Section 20.10.060 of the Bellevue Land Use Code is hereby amended by the addition of a note below each chart to read as follows:

20.10.060 Interpretation of map boundaries.

When uncertainty exists as to the boundaries of any use district established on the City's land use map(s), the following rules of construction shall apply:

- A. Where district boundaries are indicated as approximately following the centerline of streets, alleys or highways, the actual centerline shall be construed to be the boundary.
- B. Where district boundaries are indicated as running approximately parallel to the centerline of a street, the boundary line shall be construed to be parallel to the centerline of the street.
- C. Where district boundaries are indicated as approximately following lot or tract lines, the actual lot or tract lines shall be construed to be the boundary lines of such use district.
- D. Unmapped shorelands shall automatically be assigned an Urban Conservancy environment designation.
- E. Where a public street or alley is officially vacated or abandoned, the regulations applicable to the abutting property to which the vacated portion shall revert, shall apply to such vacated or abandoned street or alley.
- F. In case uncertainty exists which cannot be determined by application of the foregoing rules, the Planning Commission shall recommend, and the City Council shall determine, the location of such use district boundaries.
- G. Shoreline Overlay (S-O) District boundaries are as described in LUC 20.25E.010.C.1, and, with the exception of paragraph D above, are not subject to these rules of construction.

**City of Bellevue SMP
May 18, 2015 Conformance Amendment + CAO Update Amendments**

Section 2. Section 20.10.400 of the Bellevue Land Use Code is hereby amended to read as follows:

20.10.400 Use chart described – Interpretation

(Note: LUC 20.10.400 is not applicable in the Shoreline Overlay District).

In chart 20.10.440, land use classifications and standard Land Use Code reference numbers are listed on the vertical axis. City of Bellevue land use districts are shown on the horizontal axis.

....

Section 3. Section 20.10.420 of the Bellevue Land Use Code is hereby amended to read as follows:

20.10.420 Interpretation of land use charts by Director.

(Note: LUC 20.10.420 is not applicable in the Shoreline Overlay District).

- A. Director's Authority. In the case of a question as to the inclusion or exclusion of a particular proposed use in a particular use category, the Director shall have the authority to make the final determination. The Director shall make the determination according to the characteristics of the operation of the proposed use and based upon the Director's interpretation of the Standard Land Use Coding Manual, the Standard Industrial Classification Manual and the North American Industry Classification System.

....

Section 4. Section 20.10.440 (Land Use Charts) of the Bellevue Land Use Code is hereby amended by the addition of a note below each chart to read as follows:

Permitted uses in the Shoreline Overlay District are listed in LUC 20.25E.020.

Section 5. Section 20.10.440 (Land Use Charts – Services) of the Bellevue Land Use Code is hereby amended to revise Note 14 to read as follows:

- (14) These uses are permitted only in Bellevue School District schools, whether under control of the School District or the City.
 - (a) In the review of the proposed use or uses under the Administrative Conditional Use Permit application, Part 20.30E LUC, the following criteria shall be considered:
 - (i) Consistency of the proposal with the goals and policies of the Comprehensive Plan.
 - (ii) Extent to which the physical environment will be modified by the proposal.
 - (iii) Ability to provide on-site parking facilities to accommodate intended uses under the proposal.

City of Bellevue SMP

May 18, 2015 Conformance Amendment + CAO Update Amendments

- (iv) Extent of additional demand on public utilities and public services resulting from the proposal.
- (v) Noise impacts of the proposal.
- (vi) Traffic volumes and street classifications in the area of the proposal.
- (vii) Compatibility of the proposal with surrounding land uses.
- (viii) Impact of the proposal on the visual and aesthetic character of the neighborhood.

In addition, the proposed use or uses shall not be more intensive than if the school were being used as a school.

- (b) A master Conditional Use Permit listing a range of permissible uses from those permitted in the land use district as listed in LUC 20.10.440 can be obtained for the entire school by using the conditional use process, Part 20.30B or LUC 20.25E.150 and .180. Uses listed in the permit shall be permitted outright and uses not listed but permitted as conditional uses shall obtain a Conditional Use Permit.

Section 6. Section 20.10.440 (Land Use Charts – Recreation) is hereby amended to revise the following use listing in all land use charts (Residential Districts, Nonresidential Districts, and Downtown Districts):

744 Yacht Clubs

Section 7. Section 20.10.440 (Land Use Charts – Recreation) is hereby amended to revise Note 10 to read as follows:

(10) City parks are generally permitted in all zones, with the exception of the following types of uses or facilities:

- (a) Lighted sports and play fields, sports and play fields with amplified sound, and community recreation centers located in City parks in single-family or R-10 zones require conditional use approval pursuant to Part 20.30B LUC.
- (b) City beach parks in single-family or R-10 zones located on Lake Washington, Lake Sammamish, Phantom Lake and Larson Lake and not identified in a Council-adopted Master Plan require approval through the Conditional Use Permit process pursuant to Part 20.30B LUC. However, a City park as described in this paragraph is a permitted use when established consistent with applicable Shoreline Master Program requirements (refer to Part 20.25E LUC).
- (c) Nonrecreation uses in City parks in all zones outside the Downtown require conditional use approval, except that the permit requirements for wireless communication facilities shall be as set forth in LUC 20.20.195. For purposes of this requirement, "nonrecreation use" means a commercial, social service or residential use located on park property but not functionally related to City park programs and activities.

**City of Bellevue SMP
May 18, 2015 Conformance Amendment + CAO Update Amendments**

Section 8. Section 20.10.440 (Land Use Charts – Resources) is hereby amended to delete the following use listing from all land use charts (Residential Districts, Nonresidential Districts, and Downtown Districts):

8421 Fish Hatcheries

Section 9. Section 20.20.010 (Residential Dimensional Requirements Chart) of the Bellevue Land Use Code is hereby amended by the addition of a Note (47), attached to the "Minimum Greenscape Percentage of Front Yard Setback" dimensional requirement in the Residential chart, to read as follows:

(47) Not applicable to properties located in Shoreline Overlay Districts and which have shoreline frontage. For requirements applicable to such properties, see LUC 20.25E.065.

New CAO Update Section. Section 20.20.010 Note 13 of the Bellevue Land Use Code is hereby amended to read as follows:

(13) Lot coverage is calculated after subtracting all critical areas and stream critical area buffers; provided, that coal mine hazards (20.25H.130), and habitat associated with species of local importance (20.25H.150), and seismic hazards (20.25H.120.A.4) shall not be subtracted.

Commented [HC1]: GMA/BAS- Added for disclosure purposes only. New substantive requirements are not imposed.

Section 10. Section 20.20.010 (Dimensional Requirements Charts) of the Bellevue Land Use Code is hereby amended by the addition of a note below each chart to read as follows:

Additional Dimensional Requirements for Shoreline Overlay Districts are found in Part 20.25E LUC.

Section 11. Section 20.20.018 of the Bellevue Land Use Code is hereby amended to read as follows:

20.20.018 Variation in minimum requirements – Area, width and depth.

Except as set forth in LUC 20.20.017 above, in no case may the Director or any other hearing body vary the minimum requirements for minimum lot area, width of street frontage, width required in lot or depth required in lot, as stated in Chart 20.20.010, by more than 10 percent; except that this section shall not apply to planned unit developments, Part 20.30D LUC, conservation subdivisions, LUC 20.45A.060, or conservation short subdivisions, LUC 20.45B.055. See Part 20.30G LUC relating to variances from the Land Use Code and Part 20.25E LUC relating to variances from the Shoreline Master Program.

Section 12. Section 20.20.020 (Land Use Charts) of the Bellevue Land Use Code is hereby amended by the addition of a note below each chart to read as follows:

Additional Dimensional Requirements for the Shoreline Overlay District are found in Part 20.25E.

City of Bellevue SMP
May 18, 2015 Conformance Amendment + CAO Update Amendments

Section 13. Section 20.20.025 of the Bellevue Land Use Code is hereby amended to read as follows:

20.20.025 Intrusions into required setbacks

(Note: LUC 20.20.025 is not applicable in the Shoreline Overlay District).

A. Signs, Marquees and Awnings.

See Sign Code, Chapter 22B.10 BCC.

....

Section 14. Section 20.20.128.C.3 of the Bellevue Land Use Code is hereby amended to read as follows:

20.20.128.C Affordable housing.

C. Dimensional Standard Modification.

The following requirements of the Land Use Code may be modified through the procedures outlined in paragraph D of this section, to the extent necessary to accommodate affordable housing units and bonus units on-site.

....

3. Building Height. Except in Transition Areas and the Shoreline Overlay District, the maximum building height in R-10, R-15, R-20 and R-30 Zoning Districts may be increased by up to six feet for those portions of the building(s) at least 20 feet from any property line.

....

Section 15. Section 20.20.255.B of the Bellevue Land Use Code is hereby amended to read as follows:

20.20.255.B Electrical utility facilities.

B. Applicability.

This section applies to all proposals for new or expanding electrical utility facilities as defined in LUC 20.50.018. Additional requirements applicable to Electrical utility facilities located within the Shoreline Overlay District are provided in Part 20.25E LUC.

Section 16. Section 20.20.460.C of the Bellevue Land Use Code is hereby amended to read as follows:

20.20.460 Impervious surface.

C. Modifications to Impervious Surface Limits.

The impervious surface limits contained in LUC 20.20.010 and Chapter 20.25 LUC may be modified pursuant to a critical areas report, LUC 20.25H.230, so long as the critical areas report demonstrates that the effective impervious surface on the site does not exceed the limit established in LUC 20.20.010 and Chapter 20.25 LUC, provided, that impervious limits within the Shoreline Overlay District may be modified pursuant to a Shoreline Special Report or Shoreline Variance, as provided for by LUC 20.25E.050.C.2.

1.

Section 17. Section 20.20.560.E of the Bellevue Land Use Code is hereby amended to read as follows:

20.20.560.E Nonconforming structures, uses and sites.

E. Exceptions.

1. Downtown. The provisions of this section shall not apply in the Downtown Special Overlay District, Part 20.25A LUC. Refer to LUC 20.25A.025 for the requirements for nonconforming uses, structures, and sites located within the Downtown Special Overlay District.
2. Critical Areas Overlay District. The provisions of this section do not apply to structures or sites nonconforming to the requirements of Part 20.25H LUC. Refer to LUC 20.25H.065 for the requirements for such nonconforming structures and sites.
3. Shoreline Overlay District. The provisions of this section do not apply to uses, structures or sites nonconforming to the requirements of Part 20.25E LUC. Refer to LUC 20.25E.040 and .065.I for the requirements for such nonconforming uses, structures and sites.
4. Bel-Red (BR) Land Use Districts. The provisions of this section do not apply to uses, structures, or sites located in the Bel-Red Land Use Districts. For uses in the Bel-Red Land Use Districts established before May 26, 2009, refer to the existing conditions regulations in LUC 20.25D.060.

Section 18. Section 20.20.840 of the Bellevue Land Use Code is hereby amended to read as follows:

20.20.840 Subordinate Uses.

(Note: LUC 20.20.840 is not applicable in the Shoreline Overlay District).

A. Purpose.

The purpose of this section is to provide performance standards for subordinate uses, as defined in LUC 20.50.046.

....

Section 19. Chapter 20.25 – Special and Overlay Districts, Table of Sections, Part 20.25E, is hereby amended to read as follows:

Part 20.25E Shoreline Overlay District

- 20.25E.010 General
- 20.25E.020 Shoreline Uses Described

- 20.25E.040 Nonconforming Shoreline Conditions
- 20.25E.050 Dimensional Requirements
- 20.25E.060 General Requirements Applicable to All Shoreline Development and Uses
- 20.25E.065 Residential Shoreline Regulations
- 20.25E.070 Specific Use Regulations
- 20.25E.080 Shoreline Modifications
- 20.25E.100 Review and Appeal Procedures
- 20.25E.110 Shoreline Process I – Quasi Judicial Decisions
- 20.25E.120 Shoreline Process II – Administrative Decisions
- 20.25E.130 Shoreline Process III – Ministerial Decisions
- 20.25E.140 Legislative Non-Project Actions
- 20.25E.150 Shoreline Project Permits
- 20.25E.160 Shoreline Substantial Permits
- 20.25E.170 Exemptions from Shoreline Substantial Development Permits – Letter of Exemption Required
- 20.25E.180 Shoreline Conditional Use Permits
- 20.25E.190 Variances to the Shoreline Master Program
- 20.25E.200 Amendments to the Text of the Shoreline Master Program
- 20.25E.250 Administration
- 20.25E.260 Enforcement
- 20.25E.270 Interpretation
- 20.25E.280 Definitions

Section 20. Section 20.25H.025 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.025 Designation of critical areas.

The following areas identified in the table directly below are hereby designated as critical areas. For additional information about identifying each critical area, see the specific sections noted. Together, streams, habitats associated with species of local importance, and steep slopes comprise fish and wildlife habitat conservation areas. Critical aquifer recharge areas are not designated by the City of Bellevue, but state source water protection program standards apply (WAC 246-290-135 as now or hereafter amended).

Commented [A2]: Comp Plan Consistency- Added to address consistency with the Comprehensive Plan reference to Fish and Wildlife Habitat Conservation Areas.

Critical Area Category or Type	Additional Information Identifying Critical Area
Streams	
Type S water	LUC 20.25H.075
Type F water	LUC 20.25H.075
Type N water	LUC 20.25H.075
Type O water	LUC 20.25H.075
Closed segment, regardless of type; Kelsey Creek drainage basin	LUC 20.25H.075
Closed segment, regardless of type; all other drainage basins	LUC 20.25H.075
Wetlands	
Category I	LUC 20.25H.095
Category II	LUC 20.25H.095
Category III	LUC 20.25H.095
Category IV over 2,500 square feet	LUC 20.25H.095
Geologic Hazard Areas	
Landslide hazards	LUC 20.25H.120
Steep slopes	LUC 20.25H.120
Coal mine hazard areas	LUC 20.25H.120
<u>Seismic hazard areas</u>	<u>LUC 20.25H.120</u>
Habitat Associated with Species of Local Importance	
Habitat associated with species of local importance	LUC 20.25H.150
<u>Areas of Special Flood Hazard Frequently Flooded Areas</u>	
<u>Areas of special flood hazard Frequently Flooded Areas</u>	LUC 20.25H.175

Commented [HC3]: GMA/BAS- Added for disclosure purposes

Commented [HC4]: Comp Plan Consistency- Change in name for consistency with the Comprehensive Plan

Section 21. Section 20.25H.035.A of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.035.A Critical area buffers and structure setbacks.

A. Critical Area Buffer.

The following critical area buffers and structure setbacks are established for each critical area set forth below. For information about modifying required critical area buffers and structure setbacks, see the referenced sections noted in the table.

Critical Area Category or Type	Critical Area Buffer Width		Structure Setback		Modification of Buffer or Setback
	Undeveloped Site ¹	Developed Site ¹	Undeveloped Site ¹	Developed Site ¹	
Streams					
Type S water	100 ft	50 ft	20 ft	50 ft	LUC 20.25H.075 LUC 20.25H.230
Type F water	100 ft	50 ft	20 ft	50 ft	LUC 20.25H.075 LUC 20.25H.230
Type N water	50 ft	25 ft	15 ft	25 ft	LUC 20.25H.075 LUC 20.25H.230
Type O water	25 ft	25 ft	10 ft	None	LUC 20.25H.075 LUC 20.25H.230
Closed segment, regardless of type; Kelsey Creek drainage basin	None	None	50 ft or combined buffer and structure setback required for stream type, whichever is less	50 ft or combined buffer and structure setback required for stream type, whichever is less	LUC 20.25H.075 LUC 20.25H.230
Closed segment, regardless of type; all other drainage basins	None	None	10 ft	10 ft	LUC 20.25H.075 LUC 20.25H.230
Wetlands					
	Undeveloped Site ²	Developed Site ²	Undeveloped Site ²	Developed Site ²	
Category I		As established through previously approved and recorded NGPA or NGPE for wetland or through a previously	20 ft	20 ft from edge of previously approved and recorded NGPA or NGPE	LUC 20.25H.095 LUC 20.25H.230
Natural heritage wetland and bogs; habitat score 8-9	190 225 ft				
Natural heritage wetland and bogs; all others	190 ft				

Commented [A5]: GMA/BAS- Buffers updated per 2014 rati system and Ecology guidance

Forested wetland	Based on score for habitat or water-quality	approved Critical Areas Land Use Permit for wetland			
Habitat score of 29 to 36 <u>8-9</u>	225 ft				
Habitat score of 20 to 28 <u>5-7</u>	110 ft				
Water-quality score of 24 to 32 and habitat score of less than 20 <u>3-4</u>	75 ft				
All others	75 ft				
Category II		As established through previously approved and recorded NGPA or NGPE for wetland <u>or through a previously approved Critical Areas Land Use Permit for wetland</u>	20 ft	20 ft from edge of previously approved and recorded NGPA or NGPE	LUC 20.25H.095
Habitat score of 29 to 36 <u>8-9</u>	225 ft				LUC 20.25H.230
Habitat score of 20 to 28 <u>5-7</u>	110 ft				
Water-quality score of 24 to 32 and habitat score of less than 20 <u>3-4</u>	75 ft				
All others	75 ft				
Category III		As established through previously approved and recorded NGPA or NGPE for wetland <u>or through a previously approved Critical Areas Land Use Permit for wetland</u>	15 ft	15 ft from edge of previously approved and recorded NGPA or NGPE	LUC 20.25H.095
Habitat score of 8-9 <u>225 ft</u>					LUC 20.25H.230
Habitat score of 20 to 28 <u>5-7</u>	110 ft				
All others <u>Habitat score of 3-4</u>	60 ft				
Category IV over 2,500 square feet		As established through previously approved and recorded NGPA or NGPE for wetland <u>or through a previously approved Critical Areas Land Use Permit for wetland</u>	None	None	LUC 20.25H.095
All	40 ft				LUC 20.25H.230
Geologic Hazard Areas					
Landslide hazards	Toe-of-slope: None	Toe-of-slope: 75 ft <u>Based on site-specific analysis</u>			LUC 20.25H.120
	Top-of-slope: 50 ft	Top-of-slope: None			LUC 20.25H.230

Commented [A6]: BAS- Added per gap analysis recommendation based on Oso experience

Sleep slopes	Toe-of-slope: None	Toe-of-slope: 75 ft	LUC 20.25H.120
	Top-of-slope: 50 ft	Top-of-slope: None	LUC 20.25H.230
Seismic hazards	None	None	N/A
Coal mine hazard areas	See LUC 20.25H.130	See LUC 20.25.130	LUC 20.25H.120 LUC 20.25H.230
Habitat Associated with Species of Local Importance			
Habitat associated with species of local importance	Only if required for known species on site	None	N/A
Naturally occurring ponds with no other critical area designation	35 ft	None	LUC 20.25H.230
Areas of Special Flood Hazard <u>Frequently Flooded Areas</u>			
Areas of special flood hazard	None	None	N/A
<u>Frequently flooded areas</u>			

Commented [A7]: GMA/BAS- Added to ensure disclosure of known seismic hazards

Commented [A8]: GMA/ Comp Plan Consistency: Name cha

1. For a definition of "undeveloped site" and "developed site" for sites with streams, see LUC 20.25H.075.C.1.a.
2. For a definition of "undeveloped site" and "developed site" for sites with wetlands, see LUC 20.25H.095.C.1.a.

Section 22. Section 20.25H.050 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.050 Uses and development in the Critical Areas Overlay District.

A. Uses.

1. General. The uses established by LUC 20.10.440 for the applicable land use district may be undertaken in the Critical Areas Overlay District as allowed for in the underlying land use district. All development associated with the use shall comply with the provisions of this part.
2. Shorelines. Where the Critical Areas Overlay District and Shoreline Overlay District apply to the same site, the uses established by LUC 20.10.440 for the underlying land use district may be undertaken. Additional uses in the Shoreline Overlay District are set forth in LUC 20.25E.020 and .030. The applicable permitting process to establish the allowed uses within the Shoreline Overlay District is set forth in LUC 20.25E.100-.190. All development associated with the use shall comply with the provisions of this part and Part 20.25E LUC.

B. Development.

1. Seismic Hazard Areas, Coal Mine Hazard Areas ~~and~~, and Habitat Associated with Species of Local Importance. The seismic hazard areas, coal mine hazard areas, and habitat associated with species of local importance designated as critical areas by this part do not include absolute restrictions on development or activity. Instead, uses allowed under subsection A of this section may be undertaken in such critical areas, so long as the performance standards of LUC 20.25H.120-125 (Landslide hazards, steep slopes, and seismic hazards), LUC 20.25H.130 (coal mine hazard areas), or LUC 20.25H.160 (habitat associated with species of local importance), as applicable, are satisfied.

Commented [A9]: Conformance amendment to LUC Section 20.25H.120. Added so that seismic hazard areas will not limit u:

2. Other Critical Areas. Except as set forth in subsection B.1 of this section, all development, use, land alteration or other activity within the Critical Areas Overlay District shall be located outside of the critical area and the critical area buffer, unless such use or development is allowed pursuant to the following:

- a. Uses and development allowed within critical area or critical area buffer, see LUC 20.25H.055;
- b. Critical area buffer modifications for the following critical areas:
 - i. Streams, see LUC 20.25H.075;
 - ii. Wetlands, see LUC 20.25H.095;
 - iii. Geologic hazards, see LUC 20.25H.120.
- c. Uses and development in ~~the area of special flood hazard~~ frequently flooded areas, see LUC 20.25H.180;
- d. Modifications where allowed through a critical areas report, see LUC 20.25H.230;
- e. Reasonable use exceptions, see LUC 20.25H.190;
- f. Variances, see Part 20.30G and 20.30H LUC; or
- g. Shoreline-specific uses and development, where allowed within the Shoreline Overlay District, see Part 20.25E LUC.

Commented [HC10]: Comp Plan Consistency- Change in na for consistency with the Comprehensive Plan

C. No Modification.

The critical areas report may not be used to modify the uses allowed in the Critical Areas Overlay District as set forth in LUC 20.10.440; nor the provisions of this section.

Section 23. Section 20.25H.055.B of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.055.B Uses and development allowed within critical areas – Performance standards.

B. Uses and Development Allowed within Critical Areas.

The following chart lists uses and development that may be allowed in a critical area, critical area buffer, or critical area structure setback. The sections noted in the chart for each use or activity and critical area refer to the applicable performance standards that must be met.

		Type of Critical Area				
		Streams	Wetlands		Geologic Hazard Areas ⁷	Areas of Special Flood Hazard Frequently Flooded Areas ⁸
Allowed Use or Development	Repair and maintenance of parks and parks facilities, including trails ^{1,2}	20.25H.055.C.1 20.25H.080.A	20.25H.055.C.1 20.25H.100		20.25H.055.C.1 20.25H.125	20.25H.055.C.1 20.25H.180.C 20.25H.180.D.2
	Repair and maintenance of utility facilities, utility systems, stormwater facilities and essential public facilities ^{1,2}	20.25H.055.C.1 20.25H.080.A	20.25H.055.C.1 20.25H.100		20.25H.055.C.1 20.25H.125	20.25H.055.C.1 20.25H.180.C
	Repair and maintenance of public rights-of-way, private roads, access easements, surface parking areas, and driveways ^{1,2}	20.25H.055.C.1 20.25H.080.A	20.25H.055.C.1 20.25H.100		20.25H.055.C.1 20.25H.125	20.25H.055.C.1 20.25H.180.C
	Repair and maintenance of bridges and culverts ^{1,2}	20.25H.055.C.1 20.25H.080.A	20.25H.055.C.1 20.25H.100		20.25H.055.C.1 20.25H.125	20.25H.055.C.1 20.25H.180.C
	Construction staging ^{1,2,11}	20.25H.055.C.1 20.25H.080.A	20.25H.055.C.1 20.25H.100		20.25H.055.C.1 20.25H.125	20.25H.055.C.1 20.25H.180.C
	Existing agricultural activities ²	20.25H.055.C.1 20.25H.055.C.3.a 20.25H.080.A	20.25H.055.C.1 20.25H.055.C.3.a 20.25H.100		20.25H.055.C.1 20.25H.055.C.3.a 20.25H.125	20.25H.055.C.1 20.25H.055.C.3.a 20.25H.180.C
	Emergency actions	20.25H.055.C.3.b	20.25H.055.C.3.b		20.25H.055.C.3.b	20.25H.055.C.3.b
	New or expanded utility facilities, utility systems, stormwater facilities ³	20.25H.055.C.2 20.25H.080.A 20.25H.080.B	20.25H.055.C.2 20.25H.100		20.25H.055.C.2 20.25H.125	20.25H.055.C.2 20.25H.180.C
	New or expanded essential public facilities (12)	20.25H.055.C.2 20.25H.080.A 20.25H.080.B	20.25H.055.C.2 20.25H.100		20.25H.055.C.2 20.25H.125	20.25H.055.C.2 20.25H.180.C 20.25H.180.D.3
	Allowed Use or Development	Public flood protection measures ⁴	20.25H.055.C.2 20.25H.055.C.3.c 20.25H.080.A	20.25H.055.C.2 20.25H.055.C.3.c 20.25H.100		20.25H.055.C.2 20.25H.055.C.3.c 20.25H.125

Commented [HC11]: Comp Plan Consistency- Change in na for consistency with the Comprehensive Plan

		20.25H.080.B				20.25H.180.D.5
Instream structures ⁵	20.25H.055.C.2 20.25H.055.C.3.d 20.25H.080.A 20.25H.080.B	20.25H.055.C.2 20.25H.055.C.3.d 20.25H.100		20.25H.055.C.2 20.25H.055.C.3.d	20.25H.055.C.2 20.25H.055.C.3.d 20.25H.180.C	
New or expanded public rights-of-way, private roads, access easements and driveways	20.25H.055.C.2 20.25H.080.A 20.25H.080.B	20.25H.055.C.2 20.25H.100		20.25H.055.C.2 20.25H.125	20.25H.055.C.2 20.25H.180.C 20.25H.180.D.4	
New or expanded bridges and culverts	20.25H.055.C.2 20.25H.055.C.3.e 20.25H.080.A	20.25H.055.C.2 20.25H.055.C.3.e 20.25H.100		20.25H.055.C.2 20.25H.055.C.3.e 20.25H.125	20.25H.055.C.2 20.25H.055.C.3.e 20.25H.180.C	
New or expanded private nonmotorized trails	20.25H.055.C.2 20.25H.055.C.3.f 20.25H.080.A	20.25H.055.C.2 20.25H.055.C.3.f 20.25H.100		20.25H.055.C.2 20.25H.055.C.3.f 20.25H.125	20.25H.055.C.2 ^{15,16} 20.25H.055.C.3.f 20.25H.180.C	
New or expanded City and public parks	20.25H.055.C.3.g 20.25H.080.A	20.25H.055.C.3.g 20.25H.100		20.25H.055.C.3.g 20.25H.125	20.25H.055.C.3.g 20.25H.180.C 20.25H.180.D.2	
Existing landscape maintenance ²	20.25H.055.C.3.h 20.25H.080.A	20.25H.055.C.3.h 20.25H.100		20.25H.055.C.3.h 20.25H.125	20.25H.055.C.3.h ¹⁷ 20.25H.180.C	
Vegetation management ⁶	20.25H.055.C.3.i 20.25H.080.A	20.25H.055.C.3.i 20.25H.100		20.25H.055.C.3.i 20.25H.125	20.25H.055.C.3.i 20.25H.180.C	
Habitat improvement projects	20.25H.055.C.3.j 20.25H.080.A	20.25H.055.C.3.j 20.25H.100		20.25H.055.C.3.j 20.25H.125	20.25H.055.C.3.j 20.25H.180.C	
Forest practices	20.25H.055.C.3.k 20.25H.080.A	20.25H.055.C.3.k 20.25H.100		20.25H.055.C.3.k 20.25H.125	20.25H.055.C.3.k 20.25H.180.C	
Aquaculture	20.25H.055.C.3.l 20.25H.080.A	20.25H.055.C.3.l 20.25H.100		20.25H.055.C.3.l	20.25H.055.C.3.l 20.25H.180.C	
Stabilization measures	20.25H.055.C.3.m 20.25H.080.A	20.25H.055.C.3.m 20.25H.100		20.25H.055.C.3.m 20.25H.125	20.25H.055.C.3.m ^{13,15} 20.25H.180.C	
Expansion of existing single-family primary structures	20.25H.055.C.3.n 20.25H.080.A	20.25H.055.C.3.n 20.25H.100		20.25H.055.C.3.n 20.25H.125	20.25H.180.C ⁹ 20.25H.180.D.1	
Reasonable use exception ⁸	20.25H.080.A	20.25H.100		20.25H.125	20.25H.180.C 20.25H.180.D.7	
Recreational vehicle storage ¹⁰					20.25H.180.C 20.25H.180.D.6	
Moorage and docks associated with a residential use					Part 20.25E.065 ^{14,15}	

Notes:

1. For purposes of this section, repair and maintenance includes replacement of facilities and systems, or expansion so long as the area of permanent disturbance of the critical area or critical area buffer is not expanded. As applicable to public rights-of-way, private roads, access easements, parking areas and driveways, repair and maintenance also includes removing and replacing improvements within the area of permanent disturbance, and expansion of paved areas, so long as the area of permanent disturbance within the critical area or critical area buffer is not expanded.
2. These uses do not require a Critical Areas Land Use Permit. The requirements of this part shall be applied through the review process applicable to the underlying use or activity.
3. In the event of a conflict between this section and the utilities code, the utilities code shall prevail.
4. Examples of public flood protection measures include, but are not limited to: flood control projects, flood damage reduction facilities such as levees, revetments, and pumping stations, streambank stabilization structures and surface water conveyance facilities, bridge piers and abutments.
5. Examples of instream structures include, but are not limited to: sediment ponds, instream ponds, dams, and weirs.
6. Permit requirements may vary. See subsection C.3.i of this section.
7. For information on applicability requirements applicable to geologic hazards areas other than coal mine hazard areas, see LUC 20.25H.120. Uses and performance standards for seismic hazard areas and coal mine hazard areas set forth in LUC 20.25H.050.
8. Development authorized pursuant to a reasonable use exception, LUC 20.25H.190, shall incorporate the required performance standards to the maximum extent feasible.
9. In ~~areas of special flood hazard~~frequently flooded areas located within shoreline jurisdiction, expansion of existing single-family homes and new single-family homes (including full replacement (i.e. teardowns) are allowed in the area of special flood hazard when developed in accordance with the Residential Shoreline Regulations, LUC 20.20E.065 (including the Shoreline Greenscape Conservation Standards and Requirements, LUC 20.25E.065.F), and also in accordance with the performance standards required by LUC 20.25H.180.C and D.1. A Critical Area Land Use Permit will be required.
10. Such storage is not allowed in critical areas or critical area buffers except within ~~the area of special flood hazard~~frequently flooded areas in compliance with applicable performance standards.
11. Authorized only in areas of the critical area buffer within areas of existing permanent disturbance, including, for example: paved or gravel surface parking areas, access drives, and other similar disturbed areas.

Commented [A12]: Modified for clarity with addition of seismic hazard areas

Commented [HC13]: Comp Plan Consistency- Change in name for consistency with the Comprehensive Plan

12. Refer to Part 20.25M LUC, Light Rail Overlay District, for specific requirements applicable to EPF defined as a Regional Light Rail Transit Facility or Regional Light Rail Transit System pursuant to LUC 20.25M.020. A conditional use permit is not required when the City Council has approved a Regional Light Rail Transit Facility or Regional Light Rail Transit System by resolution or ordinance, or by a development agreement authorized by Chapter 36.70B RCW and consistent with LUC 20.25M.030.B.1.
13. Authorized only in ~~areas of special flood hazard~~frequently flooded areas located within shoreline jurisdiction and only when developed in accordance with LUC 20.25E.080.F.
14. Authorized only in ~~areas of special flood hazard~~frequently flooded areas located within shoreline jurisdiction and only when developed in the aquatic environment in accordance with LUC 20.25E.065.
15. In frequently flooded areas ~~areas of special flood hazard~~ located within shoreline jurisdiction performance standards required by this section will be applied through the applicable permit required by Part 20.25E. LUC and do not require a Critical Areas Land Use Permit.
16. Authorized only in frequently flooded areas ~~areas of special flood hazard~~ located within shoreline jurisdiction and only when developed in accordance with LUC 20.25H.
17. In frequently flooded areas ~~areas of special flood hazard~~ located within shoreline jurisdiction, existing landscape maintenance and all modifications to landscaping and landscape features shall comply with the Shoreline Greenscape Conservation Standards and Requirements, LUC 20.25E.065.F, rather than this section.

Commented [HC14]: Comp Plan Consistency- Change in na for consistency with the Comprehensive Plan

New CAO Update Section. Section 20.25H.055.C.3.e of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.055.C.3.e

- e. New or Expanded Bridges and Culverts. New culverts shall be designed in accordance with the Washington State Department of Fish and Wildlife "~~Design of Road Culverts for Fish Passage~~Water Crossing Design Guidelines" now or as hereafter amended. Culvert expansions shall be considered new culverts and be required to be designed in accordance with "~~Design of Road Culverts for Fish Passage~~Water Crossing Design Guidelines" now or as hereafter amended when the expansion is associated with a project increasing vehicular capacity and (i) there are fish present downstream; (ii) there is potential fish habitat upstream; and (iii) the benefits of so designing the culvert are substantial when compared to expanding the culvert based on its then-existing design.

Commented [A15]: BAS- Updated document reference

Section 24. Section 20.25H.055.C.3.f of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.055.C.3.f

- f. Private Nonmotorized Trails. New nonmotorized trails within the critical area or critical area buffer are limited to those accessing single-family residential moorage or serving nonresidential uses, multifamily residential uses and more than one single-family lot. Private nonmotorized trails shall comply with the performance standards for trails in subsection C.3.g of this section. Nothing in this section prohibits the creation of a soft surface nonmotorized trail in a critical area buffer on a single-family lot for use of the residents of that lot. Such trail shall not exceed four feet in width, and shall not involve the removal of any significant trees or bank-stabilizing roots. In stream and wetland buffers, trails shall not be generally parallel to the stream or wetland edge ~~closer than a distance of 25 feet.~~ shall be located in the outer 25 percent of the buffer, and shall be located no closer than 25 feet from the upland edge of the wetland or stream. Any clearing of brush or vegetation shall be the minimum necessary, and shall be with hand tools only.

Commented [HC16]: BAS- Modified per Ecology guidance

Section 25. Section 20.25H.055.C.3.h of the Bellevue Land Code is hereby amended to read as follows:

20.25H.055.C.3.h

- h. Existing Landscape Maintenance. Routine maintenance of existing legally established landscaping and landscape features developed prior to August 1, 2006, in the critical area or critical area buffer may be continued in accordance with this section. For purposes of this section, "routine maintenance" includes mowing, pruning, weeding, planting annuals, perennials, fruits and vegetables, and other activities associated with maintaining a legally established ornamental or garden landscape and landscape features. Also, for purposes of this subsection, "landscape features" refers to fences, trellises, rockeries and retaining walls, pathways, arbors, patios, play areas and other similar improvements. To be considered routine maintenance, activities shall have been consistently carried out so that the ornamental species predominate over native or invasive species. Maintenance shall be performed with hand tools or light equipment only, and no significant trees may be removed, except in accordance with Vegetation Management under subsection C.3.i of this section. Use of fertilizers, insecticides, and pesticides is not recommended unless performed in accordance with the City of Bellevue's "Environmental best Management Practices" now or as hereafter amended.

Section 26. Section 20.25H.055.C.3.m of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.055.C.3.m

- m. Stabilization Measures. Proposed stabilization measures within a critical area or critical area buffer to protect against streambank erosion or steep slopes or landslide hazards may be approved in accordance with this subsection. The performance

standards of this part do not apply to shoreline stabilization measures in flood hazard critical areas when developed in accordance with LUC 20.25E.080.F.

Section 27. Section 20.25H.065 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.065 Uses and development within critical area buffer or critical area structure setback not allowed pursuant to LUC 20.25H.055.

This section applies to uses and development legally established within the critical area or critical area buffer prior to August 1, 2006, and which is not included as an allowed use or development in LUC 20.25H.055. See performance standards at LUC 20.25H.180 for provisions relating to the repair, remodeling, expansion or reconstruction of structures located in the ~~area of special flood hazard~~ frequently flooded areas. Any alterations to existing development allowed under this section shall also comply with provisions for the ~~area of special flood hazard~~ frequently flooded areas. In the event of conflict, the provisions that result in most protection for the critical area or critical area buffer shall govern.

Commented [HC17]: Comp Plan Consistency- Change in na for consistency with the Comprehensive Plan

A. Existing Primary Structures.

.....

Section 28. Section 20.25H.075.B.1 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.075.B.1 Designation of critical area and buffers.

B.1. Designation of Streams.

1. "Type S water" means all waters,, within their bankfull width, as inventoried as "shorelines of the state" under Chapter 90.58 RCW and the rules promulgated pursuant to Chapter 90.58 RCW including periodically inundated areas of their associated wetlands. As of [insert effective date of ordinance], the only known Type S waters are Lower Kelsey Creek and Mercer Slough.

New CAO Update Section. Section 20.25H.075.C.1.e of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.075.C.1.e

- e. Measurement of Buffer on Eroding Stream Bank. A stream critical area buffer and any applicable structure setback may be measured from a fixed location representing the historic location of the top-of-bank where an applicant demonstrates that:
 - i. The location of the top-of-bank has changed over time as a result of natural stream processes; and

ii. The applicant provides ~~existing surveys, maps or other information acceptable to the Director, which accurately determines the historic location of a delineation of the top-of-bank~~ conducted within the past five years.

Commented [HC18]: BAS- Added per gap analysis recommendation

New CAO Update Section. Section 20.25H.080.A of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.080.A

A. General.

Development on sites with a type S or F stream or associated critical area buffer shall incorporate the following performance standards in design of the development, as applicable:

1. Lights shall be directed away from the stream.
2. Activity that generates noise such as parking lots, generators, and residential uses shall be located away from the stream or any noise shall be minimized through use of design and insulation techniques.
3. Toxic runoff from new impervious area shall be routed away from the stream.
4. Treated water may be allowed to enter the stream critical area buffer.
5. The outer edge of the stream critical area buffer shall be planted with dense vegetation to limit pet or human use.
6. Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream critical area buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices," now or as hereafter amended.

7. All applicable standards of LUC 24.06, Storm and Surface Water Utility Code, are met.

Commented [A19]: BAS- Added to acknowledge significance stormwater treatment and LID

New CAO Update Section. Section 20.25H.095 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.095 Designation of critical area and buffers.

A. Definition of Wetland.

Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or

highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

B. Delineation of Wetland

Wetland boundaries shall be delineated consistent with the standards and methods described in the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual, as amended, and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region, as amended.

Commented [A20]: GMA/BAS- Added to reflect new delineation manuals

CB. Designation of Critical Area.

The following wetlands are hereby designated as critical areas subject to the requirements of this part. Wetlands are classified into category I, category II, category III and category IV wetlands based on the adopted Washington State Wetland Rating System for Western Washington, Washington State Department of Ecology Publication Number ~~0414-06-0295~~, published ~~August, 2004~~ in ~~October, 2014~~, as amended.

Commented [A21]: BAS- Updated 2014 Rating System

1. Category I Wetlands. Category I wetlands are those that (a) represent a unique or rare wetland type; or (b) are more sensitive to disturbance than most wetlands; or (c) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (d) provide a high level of functions.

2. Category II Wetlands. Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than category I wetlands, but still need a relatively high level of protection. Category II wetlands in western Washington include: wetlands scoring between ~~51 to 69~~20-22 points (out of ~~100~~27) on the questions related to the functions present. Wetlands scoring ~~51 to 69~~20-22 points were judged to perform most functions relatively well, or performed one group of functions very well and the other two moderately well.

Commented [A22]: BAS- Points modified to reflect new rating scoring system

3. Category III Wetlands. Category III wetlands are wetlands with a moderate level of functions (scores between ~~30 to 50~~16-19 points). Wetlands scoring between ~~30 to 50~~16-19 points generally have been disturbed in some ways, and are often less diverse or more isolated from other natural resources in the landscape than category II wetlands.

4. Category IV Wetlands Over 2,500 Square Feet. Category IV wetlands have the lowest levels of functions (scores less than ~~30~~16 points) and are often heavily disturbed. These are wetlands that we should be able to replace, and in some cases be able to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and also need to be protected.

DC. Designation of Wetland Critical Area Buffer.

The following critical area buffers are hereby established:

1. Wetland Critical Area Buffer.

a. General.

- i. Undeveloped Sites. An undeveloped site is any site where the wetland and wetland buffer have not previously been included within a Native Growth Protection

Area (NGPA) or Native Growth Protection Easement (NGPE), regardless of whether the site contains a primary structure. Wetlands on undeveloped sites shall have the following critical area buffers, measured from the wetland boundary:

Category	Wetland Characteristic	Buffer
I	Natural heritage wetlands <u>and bogs-</u> Habitat score 8-9	190 225 feet
	Natural heritage wetlands and b Bogs- All others	190 feet
	Forested	Based on score for habitat or water quality functions
	Habitat score of 29 to 36 8-9	225 feet
	Habitat score of 20 to 28 5-7	110 feet
	Water quality score of 24 to 32 and Habitat score of less than 20- <u>Habitat</u> score of 3-4	75 feet
	Not meeting any of the above	75 feet
II	Habitat score of 29 to 36 8-9	225 feet
	Habitat score of 20 to 28 5-7	110 feet
	Water quality score of 24 to 32 and Habitat score of less than 20- <u>Habitat</u> score of 3-4	75 feet
	Not meeting any of the above	75 feet
III	<u>Habitat score of 8-9</u>	<u>225 feet</u>
	Habitat score of 20 to 28 5-7 points	110 feet
	Not meeting any of the above -Habitat score of 3-4	60 feet
IV over 2,500 square feet	Score for functions less than 30 points <u>All</u>	40

Commented [A23]: BAS- Modified to reflect 2014 rating sys

ii. Developed Site. Wetlands on developed sites shall be governed by the buffer established within the approved and recorded NGPA or NGPE, or approved Critical Areas Land Use Permit. No additional wetland buffer shall apply.

Commented [A24]: Added for clarity/consistency

(A) Previously Approved NGPE/NGPA: A developed site is any site where the wetland and wetland buffer have been included within an NGPE or NGPA approved and recorded prior to August 1, 2006, or any site abutting an NGPA approved and recorded prior to August 1, 2006, containing the wetland and wetland buffer where such site does not also contain a wetland.

(B) Previously Approved Critical Areas Land Use Permit: A developed site is any site where the wetland and wetland buffer have been identified within a Critical Areas Land Use Permit approved prior to [insert date and CAO adoption].

Commented [HC25]: Added to grandfather applicants to previously approved buffer modifications

b. Buffer and Setback on Sites with Existing Development. Where a primary structure legally established on a site prior to August 1, 2006, encroaches into the critical area buffer or structure setback established in this section, the critical area buffer and/or structure setback shall be modified to exclude the footprint of the existing primary structure. Expansion of any existing primary structure into the critical area buffer or critical area structure setback shall be allowed only pursuant to the provisions of LUC 20.25H.055 (single-family primary structures) or LUC 20.25H.230 (all other primary structures).

2. Buffer Modification. Modifications to the wetland critical area buffer may be approved pursuant to this section. Modifications to the wetland critical area buffer that do not meet the criteria of this subsection may be considered through a critical areas report, LUC 20.25H.230:

a. Buffer Averaging. Buffer averaging may be allowed if all the following criteria are satisfied. Proposals to average the wetland critical area buffer under this subsection shall require a Critical Areas Land Use Permit; provided, that a mitigation or restoration plan is not required for buffer averaging.

i. Buffer averaging may be approved only if the applicant demonstrates that a modification to non-critical area setbacks pursuant to LUC 20.25H.040 would not accommodate the proposed development in a manner consistent with its intended use and function;

ii. Through buffer averaging, the ecological structure and function of the resulting buffer is equivalent to or greater than the structure and function before averaging;

iii. The total buffer area is not reduced;

iv. The buffer area is contiguous;

v. Averaging does not result in any impact to slope stability and does not increase the likelihood of erosion or landslide hazard;

vi. Averaging does not result in a significant adverse impact to habitat associated with species of local importance; and

vii. At no point is the critical area buffer width less than 75 percent of the required buffer dimension.

b. Transportation or Utility Infrastructure. Where a legally established right-of-way, railroad right-of-way or other similar infrastructure of a linear nature crosses a wetland critical area buffer, the edge of the improved right-of-way shall be the extent of the buffer, if the part of the critical area buffer on the other side of the right-of-way provides insignificant biological or hydrological function in relation to the portion of the buffer adjacent to the wetland.

ED. Structure Setbacks.

1. General. The requirements of this section apply along with any other dimensional requirements of the Land Use Code (see LUC 20.20.010, 20.20.130, 20.20.190 and Parts 20.25A – 20.25G). The most restrictive dimension controls. Structure setbacks are required in order to:

- a. Minimize long-term impacts of development adjacent to critical areas and critical area buffers; and
- b. Protect critical areas and critical area buffers from adverse impacts during construction.

2. Minimum Setback of Structures – Undeveloped and Developed Sites. The following structure setbacks apply to both undeveloped and developed sites. Structure setbacks shall be measured from the edge of the critical area buffer on undeveloped sites, or from the edge of the approved and recorded NGPE or NGPA on developed sites:

Category I wetlands	20 feet
Category II wetlands	20 feet
Category III wetlands	15 feet
Category IV wetlands	None required

3. Structure Setback Modification – Undeveloped Sites. The Director may waive or modify the structure setback on an undeveloped site as part of the permit or approval for the underlying proposal if the applicant demonstrates that:

- a. Water quality, or slope stability as documented in a geotechnical report, will not be adversely affected;
- b. Encroachment into the structure setback will not disturb habitat of a species of local importance within a critical area or critical area buffer;
- c. Vegetation in the critical area and critical area buffer will not be disturbed by construction, development, or maintenance activities and will be maintained in a healthy condition for the anticipated life of the development; and
- d. Enhancement planting on the boundary between the structure setback and the critical area buffer will reduce impacts of development within the structure setback.

4. Structure Setback Modification – Developed Sites. Structure setbacks on developed sites may be modified only through an approved critical areas report.

New CAO Update Section. Section 20.25H.100 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.100 Performance standards.

Development on sites with a wetland or wetland critical area buffer shall incorporate the following performance standards in design of the development, as applicable:

- A. Lights shall be directed away from the wetland.
- B. Activity that generates noise such as parking lots, generators, and residential uses, shall be located away from the wetland, or any noise shall be minimized through use of design and insulation techniques.

- C. Toxic runoff from new impervious area shall be routed away from the wetlands.
- D. Treated water may be allowed to enter the wetland critical area buffer.
- E. The outer edge of the wetland critical area buffer shall be planted with dense vegetation to limit pet or human use.
- F. Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices," now or as hereafter amended.

G. All applicable standards of LUC 24.06, Storm and Surface Water Utility Code, are met.

Commented [A26]: BAS- Added to acknowledge significance of stormwater treatment and LID

New CAO Update Section. Section 20.25H.110 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.110 Critical areas report – Additional provisions.

A. Limitation on Modification.

A critical areas report may not be used to fill a wetland critical area, except where filling is required to allow a use set forth in LUC 20.25H.055.

B. Additional Content.

In addition to the general requirements of LUC 20.25H.230, a critical areas report for wetlands shall include a written assessment and accompanying maps of the wetlands and buffers within 300 feet of the project area, including the following information at a minimum:

1. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land use activity.
2. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions.
3. Functional evaluation for the wetland and adjacent buffer using ~~a local or state agency staff-recognized method~~ the Washington State Wetland Rating System for Western Washington (14-06-029, published in October, 2014, as amended) and including the reference of the method and all data sheets.

Commented [A27]: BAS- Amended to clarify that Washington Functional Assessment Method is not necessary and that Washington Rating System should be used

Section 29. Section 20.25H.115 of the Bellevue Land Use Code is hereby amended to read as follows:

VI. (RESERVED)

Section 30. Section 20.25H.118 of the Bellevue Land Use Code is hereby deleted.

Section 31. Section 20.25H.119 of the Bellevue Land Use Code is hereby deleted.

New CAO Update Section. Section 20.25H.120 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.120 Designation of critical area and buffers.

A. Designation of Critical Areas.

The following geologic hazard areas are hereby designated critical areas subject to the regulations of this part.

1. Landslide Hazards. Areas of slopes of 15 percent or more with more than 10 feet of rise, which also display any of the following characteristics:
 - a. Areas of historic failures, including those areas designated as quaternary slumps, earthflows, mudflows, or landslides.
 - b. Areas that have shown movement during the Holocene Epoch (past 13,500 years) or that are underlain by landslide deposits.
 - c. Slopes that are parallel or subparallel to planes of weakness in subsurface materials.
 - d. Slopes exhibiting geomorphological features indicative of past failures, such as hummocky ground and back-rotated benches on slopes.
 - e. Areas with seeps indicating a shallow ground water table on or adjacent to the slope face.
 - f. Areas of potential instability because of rapid stream incision, stream bank erosion, and undercutting by wave action.
2. Steep Slopes. Slopes of 40 percent or more that have a rise of at least 10 feet and exceed 1,000 square feet in area.
3. Coal Mine Hazards. Areas designated on the Coal Mine Area Maps or in the City's coal mine area regulations, LUC 20.25H.130, as potentially affected by abandoned coal mines; provided, that compliance with the coal mine area regulations shall constitute compliance with the requirements of this chapter in regard to coal mines.
4. Seismic Hazards. Areas of known faults or Holocene displacement, based on the most up to date information, or areas mapped areas of "moderate to high" or "high" hazard liquefaction susceptibility by the Washington Department of Natural Resources Liquefaction Susceptibility Map of King County, Washington, 2004, as amended.

Commented [A28]: GMA/BAS- Added to ensure that seismic hazards are disclosed to buyers and that most recent informatic used

B. Geologic Hazard Area Buffers.

The following critical area buffers are established.

1. General Geologic Hazard Critical Area Buffers.

- a. Landslide hazards Top-of-slope buffer of 50 feet.
- b. Steep slopes Top-of-slope buffer of 50 feet.

2. Existing Development. Where a primary structure legally established on a site prior to August 1, 2006, encroaches into the critical area buffer established in subsection B.1 of this section, the critical area buffer and structure setback shall be modified to exclude the footprint of the existing structure. Expansion of an existing structure into the critical area buffer shall be allowed only pursuant to the provisions of LUC 20.25H.065.

3. Buffer Modification. Modifications to the geologic hazard critical area buffer may be considered through a critical areas report, LUC 20.25H.230.

C. Structure Setbacks.

1. General. The requirements of this section apply along with any other dimensional requirements of the Land Use Code (see LUC 20.20.010, 20.20.130, 20.20.190 and Parts 20.25A – 20.25G). The most restrictive dimension controls. Structure setbacks are required in order to:

- a. Minimize long-term impacts of development adjacent to critical areas and critical area buffers; and
- b. Protect critical areas and critical area buffers from adverse impacts during construction.

2. Minimum Setback of Structures.

- a. Landslide hazards ~~Toe-of-slope setback of 75 feet~~ Determined based on site-specific geotechnical studies to reflect site characteristics, including site topography and conditions that may be conducive to fast moving, shallow debris slides and flows.
- b. Steep slopes Toe-of-slope setback of 75 feet.

Commented [A29]: BAS- Based on recognition of important site-specific characteristics following Oso landslide.

3. Structure Setback Modification. Structure setbacks may be modified only through an approved critical areas report.

Section 32. Section 20.25H.150.D of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.150.D Designation of critical area.

D. Designation of Critical Area for Naturally Occurring Ponds. The following critical area buffer is hereby established for naturally occurring ponds that are not classified as a stream or wetland:

Naturally occurring ponds where no other critical area designation applies: 35 feet.

Section 33. Section 20.25H.155 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.155 Uses in habitat for species of local importance.

The uses allowed in the underlying land use district are allowed within habitat associated with species of local importance, so long as the development complies with the performance standards of LUC 20.25H.160; provided, that fish habitat protection is presumed through compliance with performance standards contained in Part 20.25E LUC. This section does not allow modification of other critical areas of critical area buffers.

New CAO Update Section. Section 20.25H.175 of the Bellevue Land Use Code is hereby amended to read as follows:

IX. ~~AREAS OF SPECIAL FLOOD HAZARD~~ FREQUENTLY FLOODED AREAS

Commented [A30]: Comp Plan Consistency- Change in name for consistency with the Comprehensive Plan

20.25H.175 Designation of critical area.

A. Designation of Critical Area.

~~Areas of special flood hazard~~ Frequently flooded areas shall include:

1. Land Subject to One-Hundred-Year Flood. The land in the floodplain subject to the flood having a one percent chance or greater of being equaled or exceeded in any given year as determined by customary methods of statistical analysis defined in the City of Bellevue Storm and Surface Water Engineering Standards, January ~~2014~~ 2016, or as hereafter amended. Also referred to as the 100-year flood.
2. ~~Areas Identified of Special Flood Hazard~~ Areas Identified of Special Flood Hazard on the Flood Insurance Rate Map(s). Those areas identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for King County" dated April 19, 2005, with an accompanying flood insurance map(s) and any revisions thereto. The Flood Insurance Study and accompanying map(s) are hereby adopted by reference, declared part of this part, and are available for public review at the City of Bellevue.
3. Additional Areas. Other areas designated by the Director pursuant to this section shall be considered ~~areas of special flood hazard~~ frequently flooded areas.
4. Designation of Areas of Special Flood Hazard. Flood Insurance Rate Maps are to be used as a guide for the City of Bellevue, project applicants, and/or property owners to identify areas of special flood hazard. Flood Insurance Rate Maps may be continuously updated as areas are reexamined or new areas are identified. Newer and more restrictive information for flood hazard area identification shall be the basis for regulation.
5. Use of Additional Information. The Director may use additional flood information that is more restrictive or detailed than that provided in the Flood Insurance Study to designate ~~areas of special flood hazard~~ frequently flooded areas, including data on channel migration, historical data, high water marks, photographs of past flooding, location of restrictive floodways, maps showing future build-out conditions, maps that show stream habitat areas, or similar information.
6. Flood Elevation Data. When base flood elevation data is not available (A and V zones), the Director shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer

Commented [A31]: This term is specifically used in the FEM mapping, so it is appropriate here

provisions for ~~the area of special flood hazard~~frequently flooded areas. In areas of special flood hazard where the BFE has increased due to remapping efforts, the new BFE will establish the regulatory limit.

New CAO Update Section. Section 20.25H.177 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.177 Definitions.

For purposes of the regulations for ~~the area of special flood hazard~~frequently flooded areas, the following definitions apply:

Commented [HC32]: Comp Plan Consistency- Change in na for consistency with the Comprehensive Plan

"Base flood elevation (BFE)" means the flood having a one percent chance of being equaled or exceeded in any given year as determined by customary methods of statistical analysis defined in the Storm and Surface Water Utility Code, Chapter 24.06 BCC. Also referred to as the 100-year flood.

"Basement" means any area of the building having its floor subgrade (below ground level) on all sides.

"Development" means any man-made change to improved or unimproved real estate in ~~the area of special flood hazard~~frequently flooded areas, including, but not limited to, building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

"Encroachment" means any alteration or development within the regulatory floodway that would result in any increase in the flood levels during the occurrence of the base flood discharge.

"Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow of inland or tidal waters; or
2. The unusual and rapid accumulation or runoff of surface waters from any source.

"Flood Insurance Rate Map" means the map delineating special flood hazard areas effective December, 1978, that was prepared by the Federal Insurance Administration for the City or as subsequently revised by the Federal Emergency Management Agency.

"Floodproofing" means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate of improved real property, water and sanitary facilities, structures and their contents.

"Floodway" means the channel of a river or stream and overbank areas adjacent to the channel. The floodway carries the bulk of floodwater downstream and is usually the area where water velocities and forces are the greatest and most destructive. The floodway and the adjacent land areas must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"Hyporheic zone" means the saturated zone located beneath and adjacent to streams that contains some portion of surface waters, serves as a filter for nutrients and maintains water quality.

"Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this part found in LUC 20.25H.180.D.1.a.

"Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include "recreational vehicle."

One-Hundred-Year Flood. See "Base flood elevation (BFE)."

"Pre-FIRM building" means a building constructed prior to December 1, 1978.

"Recreational vehicle" means a vehicle which is:

1. Built on a single chassis;
2. Four hundred square feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently towable by a light duty truck; and
4. Designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel, or seasonal use.

"Regulatory floodway" means the floodway delineated on the flood insurance rate map (FIRM).

"Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a mobile home.

"Substantial damage" means damage of any origin sustained by a structure where the cost of restoring the structure to its before damage condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

"Substantial improvement" includes the following: Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either (1) before the improvement or repair is started, or (2) if the structure has been damaged, and is being restored, before the damage occurred. For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either (1) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or (2) any alteration of a structure listed on the National Register of Historic Places.

New CAO Update Section. Section 20.25H.180 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.180 Development in ~~the area of special flood hazard~~ frequently flooded areas.

Commented [HC33]: Comp Plan Consistency- Change in na for consistency with the Comprehensive Plan

No use, development or activity may occur in ~~an area of special flood hazard~~ frequently flooded areas except as specifically allowed by this part. All use, development or activity which is allowed is subject to the performance standards of this section and shall not result in a rise in the BFE. The requirements of this section may not be modified through a critical areas report.

A. Existing Development Declared Legally Nonconforming.

All development within ~~the area of special flood hazard~~ frequently flooded areas for which a vested Building Permit application exists prior to the effective date of this part and which fails to comply with the requirements of this part is legal nonconforming development. Lateral additions, new development or substantial improvements to a legally nonconforming development shall be allowed in compliance with subsection D of this section, and shall comply with the applicable performance standards of this section. Any other modification to a legally nonconforming development shall not result in a rise in the BFE.

B. Review of Proposed Development – Applicable Process.

Proposals for development in ~~the areas of special flood hazard~~ frequently flooded areas shall require a Critical Areas Land Use Permit, Part 20.30P LUC. The Director shall determine that all necessary permits have been obtained from federal, state, or local agencies prior to approval.

C. General Performance Standards.

Where use or development is allowed pursuant to LUC 20.25H.055, the following general performance standards apply:

1. Intrusion Over ~~the Area of Special Flood Hazard~~ Frequently Flooded Areas Allowed. Any structure may intrude over ~~the area of special flood hazard~~ frequently flooded areas if:

- a. The intrusion is located above existing grade, and does not alter the configuration of the ~~area of special flood hazard~~ frequently flooded area;
- b. The intrusion is at an elevation and orientation which maintains the existing vegetation of the ~~area of special flood hazard~~ frequently flooded area in a healthy condition. Solar access to vegetation must be maintained at least 50 percent of daylight hours during the normal growing season; and
- c. The intrusion does not encroach into the regulated floodway except in compliance with subsection C.5 of this section.

Development not meeting the requirements of this subsection C.1 may be allowed pursuant to LUC 20.25H.055 and only in accordance with the requirements set forth in the remainder of this section C.

2. Elevation Certificate Following Construction. Following construction of a structure within ~~the area of special flood hazard~~ a frequently flooded area, where the base flood elevation is

provided, the applicant shall obtain an elevation certificate. The elevation certificate shall be completed by a surveyor licensed in the state of Washington and shall be submitted to City of Bellevue, Utilities Department. The Director shall obtain and transmit to the Director of the Utilities Department the elevation in relation to City of Bellevue vertical datum (NAVD 88) of the lowest floor, including basement, and attendant utilities of a new or substantially improved structure permitted by this part. All records shall be maintained for public inspection in accordance with 44 C.F.R. 60.3(b)(5)(iii) and the City of Bellevue record retention policy.

3. Construction Materials and Methods.

a. Site Design. All structures, utilities, and other improvements shall be located on the buildable portion of the site out of the ~~area-of-special-flood-hazard~~frequently flooded ~~area~~ unless there is no buildable site out of the ~~area-of-special-flood-hazard~~frequently flooded area. For sites with no buildable area out of the ~~area-of-special-flood-hazard~~frequently flooded area, structures, utilities, and other improvements shall be placed on the highest land on the site, outside of the floodway, oriented parallel to flow rather than perpendicular, and sited as far from the stream and other critical areas as possible. ~~Located in flood-fringe where flood flow velocities are less than three feet per second and flood depths are less than three feet.~~ If the Director detects any evidence of active hyporheic exchange on a site, the development shall be located to minimize disruption of such exchange.

Commented [HC34]: Comp Plan Consistency- Change in name for consistency with the Comprehensive Plan

Commented [HC35]: BAS – Consistency amendment with National Flood Insurance Program

b. Methods That Minimize Flood Damage. All new construction and substantial improvements shall be constructed using flood-resistant materials and using methods and practices that minimize flood damage.

c. Utility Protection. Electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

d. Anchoring. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

4. No Rise in the Base Flood Elevation (BFE). Any allowed use or development shall not result in a rise in the BFE.

a. Post and Pile. Post and piling techniques are preferred and are presumed to produce no increase in the BFE. Demonstration of no net rise in the BFE through calculation is not required.

b. Compensatory Storage. Proposals using compensatory storage techniques to assure no rise in the BFE shall demonstrate no net rise in the BFE through the calculation by methods established in the Utilities Storm and Surface Water Engineering Standards, January ~~2014~~2016, Section D4-04.5, Floodplain/Floodway Analysis, now or as hereafter amended.

Commented [HC36]: BAS- Updated document reference

5. Development in the Regulatory Floodway.

a. Encroachment into Regulatory Floodway Prohibited. Encroachments, including, but not limited to, fill, new construction, substantial improvements, and other development, are prohibited, unless a registered professional engineer certifies that the proposed

encroachment into the regulatory floodway shall not result in any rise in the BFE using hydrological and hydraulic analysis performed in accordance with City of Bellevue Storm and Surface Water Engineering Standards, January 2014~~2016~~, or as hereafter amended. All new construction and substantial improvements shall comply with this section.

Commented [HC37]: BAS- Updated document reference

b. Residential Structures. A residential structure located partially within the regulatory floodway will be considered as totally within the regulatory floodway and must comply with this subsection C.5. This subsection does not apply to structures identified as historical places. Construction or reconstruction of residential structures is prohibited within the regulatory floodway, except when:

- i. Repairs, reconstruction, or improvements to a structure do not increase the footprint; and
- ii. Repairs, reconstruction, or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either (1) before the repair, reconstruction, or improvement is begun, or (2) if the structure has been damaged, and is being restored, before the damage occurred. Work done to comply with state or local health, sanitary, or safety codes identified by the Building Official and which are the minimum necessary to assure safe living conditions or any alteration of a structure listed on the National Register of Historic Places shall not be included in the 50 percent market value determination.

c. Substantially Damaged Residential Structures.

i. The Director may request the Washington State Department of Ecology assess the risk of harm to life and property posed by the specific conditions of the regulatory floodway, and provide the City with a recommendation on repair or replacement of a substantially damaged residential structure consistent with WAC 173-158-076, now or as hereafter amended. Property owners shall be responsible for submitting to the City any information necessary to complete the assessment when such information is not otherwise available. No repair or replacement of a substantially damaged residential structure located in the regulatory floodway is allowed without a recommendation from the Department of Ecology.

ii. Before the repair, replacement, or reconstruction is started, all requirements of this section must be satisfied. In addition, the following conditions shall be met:

- (1) There is no potential safe building location for the replacement residential structure on the same property outside the regulatory floodway;
- (2) A replacement residential structure is a residential structure built as a substitute for a previously existing residential structure of equivalent use and size;
- (3) Repairs or reconstruction or replacement of a residential structure shall not increase the total square footage of floodway encroachment;
- (4) The elevation of the lowest floor of the substantially damaged or replacement residential structure is a minimum of one foot higher than the base flood elevation;

(5) New and replacement water supply systems are designed to eliminate or minimize infiltration of flood water into the system;

(6) New and replacement sanitary sewerage systems are designed and located to eliminate or minimize infiltration of flood water into the system and discharge from the system into the flood waters; and

(7) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

6. Modification of Stream Channel. Alteration of open stream channels shall be avoided, if feasible. If unavoidable, the following provisions shall apply to the alteration:

a. Modifications shall only be allowed in accordance with the habitat improvement projects.

b. Modification projects shall not result in blockage of side channels.

c. The City of Bellevue shall notify adjacent communities, the state departments of Ecology and Fish and Wildlife, and the Federal Insurance Administration about the proposed modification at least 30 days prior to permit issuance.

d. The applicant shall maintain the altered or relocated portion of the stream channel to ensure that the flood-carrying capacity is not diminished. Maintenance shall be bonded for a period of five years, and be in accordance with an approved maintenance program.

7. Compensatory Storage. Development proposals must not reduce the effective base flood storage volume of the area of special flood hazard. Grading or other activity that would reduce the effective storage volume must be mitigated by creating compensatory storage on the site. The compensatory storage must:

a. Provide equivalent elevations to that being displaced;

b. Be hydraulically connected to the source of flooding;

c. Be provided in the same construction season and before the flood season begins on September 30th;

d. Occur on site or off site if legal arrangements can be made to assure that the effective compensatory storage volume will be preserved over time;

e. Be supported by a detailed hydraulic analysis that:

i. Is prepared by a licensed engineer;

ii. Demonstrates that the proposed compensatory storage does not adversely affect the BFE; and

f. Meet all other critical areas rules subject to this part. If modification to a critical area or critical area buffer is required to complete the compensatory storage requirement, such modification shall be mitigated pursuant to an approved mitigation and restoration plan, LUC 20.25H.210.

8. Floodplain Ecological Functions. The use or development shall meet National Flood Insurance Program requirements for the protection of floodplain ecological functions in accordance with guidelines established by the Director. Floodplain ecological functions include, but are not limited to, stormwater quality, floodwater storage and conveyance capacity, and habitat.

Commented [SS38]: BAS- Added to address requirement fr
2008 FEMA Biological Opinion

D. Specific Performance Standards.

Where use or development is allowed pursuant to LUC 20.25H.055, the following specific performance standards apply.

1. Modification of Existing Development and Existing Nonconforming Development. Lateral additions and substantial improvements to existing development and existing nonconforming development is allowed only through a reasonable use exception, LUC 20.25H.190.

a. Substantial Improvements. Substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation (BFE). Fully enclosed areas below the BFE that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

- i. A minimum of two openings having a total net area of not less than one square inch for every one square foot of enclosed area subject to flooding shall be provided.
- ii. The bottom of all openings shall be no higher than one foot above grade.
- iii. Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.
- iv. Enclosed areas (including breakaway walls) below the BFE shall be no larger than 300 square feet.

b. Lateral Additions. Lateral additions to structures that qualify as a substantial improvement must meet the elevation standards of new construction. If the common wall between the lateral addition and the existing structure is demolished as part of the project, then the entire structure must meet the elevation standards of new construction. If only a doorway or similar opening is knocked through, only the addition has to meet the elevation standards.

c. Pre-FIRM Buildings. Pre-FIRM buildings that qualify as a substantial improvement (including lateral additions) must meet the elevation standards of new construction.

2. Repair and Maintenance of Existing Parks and Park Facilities – New or Expanded City and Public Parks. Substantial improvement of any structure in **the area of special flood hazard frequently flooded areas** must comply with the nonresidential performance standards found in this section.

Commented [HC39]: Comp Plan Consistency- Change in na
for consistency with the Comprehensive Plan

3. New or Expanded Essential Public Facilities.

- a. The facility is elevated or protected to the 100-year flood elevation.

b. Dry floodproofing and sealing measures must be taken to ensure that hazardous or toxic substances will not be displaced by or released into floodwaters.

4. New or Expanded Public Rights-of-Way, Private Roads, Access Easements and Driveways.

- a. The low chord on the bridge structure will be no less than the elevation of the BFE.
- b. Access to Essential Public Facilities must be elevated to or above the BFE to the nearest maintained public street or roadway.

5. Public Flood Protection Measures. Such projects may be allowed in the area of special flood hazard and may increase the BFE; provided, that the project produces measurable benefits, such as decreased erosion, peak flow reduction, improved water quality, improved aquatic habitat and doesn't threaten structures. Prior to approval, the applicant shall obtain conditional approval from the Region X FEMA office to increase the BFE, where applicable.

6. Recreational Vehicles. Recreational vehicles are required to either:

- a. Be on the site for fewer than 180 consecutive days; and
- b. Be fully licensed and ready for highway use on its wheels or jacking system, be attached to the site only by quick-disconnect-type utilities and security devices, and have no permanently attached additions; or
- c. Obtain a development permit and meet the requirements, including elevation and anchoring, for manufactured homes.

7. Reasonable Use Exception. Where a reasonable use exception is granted under LUC 20.25H.190, the following performance standards apply:

- a. Residential Construction (Single-Family and Multifamily Dwellings).
 - i. Must Be Above Base Flood Elevation. New construction of any residential structure shall have the lowest floor, including basement and attendant utilities, elevated one foot or more above the base flood elevation.
 - ii. Enclosed areas (including breakaway walls) below the BFE shall be no larger than 300 square feet.
 - iii. Must comply with the requirements for openings set forth in subsection D.1.a of this section.
- b. Manufactured Homes. All manufactured homes must meet the elevation standards for new construction. All manufactured homes shall be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors.
- c. Nonresidential Construction.
 - i. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot or more above the base flood elevation, or

- ii. Together with attendant utility and sanitary facilities, shall:
 - (A) Be floodproofed so that below one foot or more above the base flood elevation the structure is watertight with walls substantially impermeable to the passage of water;
 - (B) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
 - (C) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications, and plans. Such certification shall be provided to the Development Services Department. Following construction of the structure, elevation certificates shall be submitted to the City that record the actual (as-built) elevation to which the structure was floodproofed.
- iii. Fully enclosed areas below the BFE that are not floodproofed shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:
 - (A) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
 - (B) The bottom of all openings shall be no higher than one foot above grade; and
 - (C) Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.
- iv. Lateral Additions. Lateral additions to structures that qualify as a substantial improvement must meet the elevation standards of new nonresidential construction. If the common wall between the lateral addition and the existing structure is demolished as part of the project, then the entire structure must meet the standards of new, nonresidential construction. If only a doorway or similar is knocked through, only the addition has to meet the construction standards.
- v. Pre-FIRM Buildings. Pre-FIRM buildings that qualify as a substantial improvement (including lateral additions) must meet the elevation standards of new construction.

New CAO Update Section. Section 20.25H.205 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.205 Reasonable use exception – Performance standards.

Where disturbance of a critical area or critical area buffer is allowed under this section, development is subject to the following performance standards. Additional performance

standards apply to development in streams (LUC 20.25H.080), wetlands (LUC 20.25H.100), geologic hazard areas (LUC 20.25H.125), and frequently flooded areas ~~areas of special flood hazard~~ (LUC 20.25H.180). Where a conflict exists with the performance standards of this section, the provisions providing the most protection to critical area functions and values apply.

Commented [HC40]: Comp Plan Consistency- Change in na for consistency with the Comprehensive Plan

- A. The structure shall be located on the site in order to minimize the impact on the critical area or critical area buffer, including modifying the non-critical area setbacks to the maximum extent allowed under LUC 20.25H.040;
- B. Ground floor access points on portions of the structure adjacent to undisturbed critical area or critical area buffer shall be limited to the minimum necessary to comply with the requirements of the International Building Code and International Fire Code, as adopted and amended by the City of Bellevue;
- C. Associated development, including access driveways and utility infrastructure shall be located outside of the critical area or critical area buffer to the maximum extent technically feasible;
- D. Areas of disturbance for associated development, including access and utility infrastructure shall be consolidated to the maximum extent technically feasible;
- E. All areas of temporary disturbance associated with utility installation, construction staging and other development shall be determined by the Director and delineated in the field prior to construction and temporary disturbance shall be restored pursuant to a restoration plan meeting the requirements of LUC 20.25H.210;
- F. Areas of permanent disturbance shall be mitigated to the maximum extent feasible on-site pursuant to a mitigation plan meeting the requirements of LUC 20.25H.210; and
- G. Fencing, signage and/or additional buffer plantings should be incorporated into the site development in order to prevent long-term disturbance within the critical area or critical area buffer.

Section 34. Section 20.25H.210 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.210 Applicability.

Where a mitigation or restoration plan is required under this part , the plan shall be developed in accordance with the standards of LUC 20.25H.210 through 20.25H.225 inclusive. Any mitigation or restoration plan shall be approved as part of the permit or approval required for the underlying activity. Where a project requires a critical areas report and a mitigation or restoration plan, the mitigation or restoration plan may be included with the critical areas report.

Section 35. Section 20.20.220.A of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.220.A Mitigation and restoration plan requirements.

A. Plan Phases.

Where an applicant is seeking modifications to this part through a critical areas report pursuant to LUC 20.25H.230, the mitigation plan required for the proposal may be submitted in phases. A conceptual plan shall be submitted as part of the critical areas report and approved with the land use approval for the proposal. A detailed plan shall be approved prior to or with approval of the first permit or other approval required to perform work associated with the proposal.

Section 36. Section 20.25H.230 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.230 Critical areas report – Purpose.

A critical areas report is a mechanism by which the requirements of this part and the impervious surface standards set forth in LUC 20.20.010 may be modified for a specific proposal.

The critical areas report is intended to provide flexibility for sites where the expected critical area functions and values are not present due to degraded conditions or other unique site characteristics, or for proposals providing unique design or protection of critical area functions and values not anticipated by this part. The scope and complexity of information required in a critical areas report will vary, depending on the scope and complexity and magnitude of impact on critical areas and critical area buffers associated with the proposed development. Generally, the critical areas report must demonstrate that the proposal with the requested modifications leads to equivalent or better protection of critical area functions and values than would result from the application of the standard requirements. Where the proposal involves restoration of degraded conditions in exchange for a reduction in regulated critical area buffer on a site, the critical areas report must demonstrate a net increase in certain critical area functions.

Section 37. Section 20.25H.240 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25H.240 Critical areas report – Limitation on modifications.

The critical areas report may not be used to modify sections of the Land Use Code outside of this part unless otherwise expressly permitted. The critical areas report may not be used to modify the definitions of critical areas or definitions of stream types or wetland categories, or any other provision of this part that expressly prohibits modification. The critical areas report may not be used to modify streams or wetlands unless otherwise expressly permitted. Additional limitations on modifications for specific critical areas may be found in the sections of this part addressing that critical area.

Section 38. Section 20.25M.010.D.2 of the Bellevue Land Use Code is hereby amended to read as follows:

20.25M.010.D General

D. Applicable Land Use Code Provisions.

2. Applicable Procedural and Administrative Sections Incorporated by Reference. Predictability and certainty with respect to procedural Land Use Code requirements ensures effectiveness of permit review and that the level of public participation for individual RLRT Facility applications occurs consistently across all land use districts and overlay areas of the City. The following procedural and administrative sections of the Land Use Code are expressly incorporated into the provisions of this Chapter 20.25M and apply to an RLRT Facility:
 - a. LUC 20.25E.100 through 20.25E.200 – Shoreline Overlay District Procedures and Permits
 - b. LUC 20.25E.250 through 270 – Shoreline Overlay District Administration and Enforcement
 - c. Chapter 20.35 LUC – Review and Procedures
 - d. Chapter 20.40 LUC – Administration and Enforcement sections as follows:
 - i. LUC 20.40.010 through 20.40.080; and
 - ii. LUC 20.40.500 through 510.
 - e. Chapter 20.50 LUC – Definitions.

Section 39. Section 20.25M.030.D of the Bellevue Land Use Code is hereby amended to read as follows:

20.25M.030.D Required Permits

D. Shoreline Substantial Development Permit and Variance

1. Any RLRT Facility proposed or located in the Shoreline Overlay District (Part 20.25E LUC) shall comply with the Shoreline Substantial Development Permit (SSDP) requirements of LUC 20.25E.100 and .160. Application for a SSDP shall be processed independently of any application for Design and Mitigation approval under this chapter. Application for a SSDP shall be subject to the decision criteria of LUC 20.25E.150 and .160.
2. For properties lying within the Shoreline Overlay District, the City may approve a request to exceed the allowable height limit established by LUC 20.25E.050 through the Variance to the Shoreline Master Program process allowed pursuant to LUC20.25E.100 and .120. Application for a shoreline variance shall be subject to the decision criteria of LUC 20.25E.150 and .190.

Section 40. Chapter 20.30 – Table of Contents - of the Bellevue Land Use Code is hereby amended to read as follows:

**Chapter 20.30
PERMITS AND DECISIONS**

Sections:

Part 20.30A Rezone

- 20.30A.110 Scope
- 20.30A.115 Applicability
- 20.30A.120 Purpose
- 20.30A.140 Decision criteria
- 20.30A.145 Limitation on authority
- 20.30A.150 Map change
- 20.30A.155 Concomitant agreement

Part 20.30B Conditional Use Permit

- 20.30B.110 Scope
- 20.30B.115 Applicability
- 20.30B.120 Purpose
- 20.30B.140 Decision criteria
- 20.30B.160 Merger with Binding Site Plan
- 20.30B.165 Periodic review
- 20.30B.170 Modification/revocation
- 20.30B.175 Modification or addition to an approved project or decision

Part 20.30C (Reserved)

Part 20.30D Planned Unit Development

- 20.30D.110 Scope
- 20.30D.115 Applicability
- 20.30D.120 Purpose
- 20.30D.150 Planned Unit Development plan – Decision criteria
- 20.30D.160 Planned Unit Development plan – Conservation feature and recreation space requirement
- 20.30D.165 Planned Unit Development plan – Request for modification of zoning requirements
- 20.30D.167 Planned Unit Development – Additional bonus density for large-parcel projects
- 20.30D.170 Planned Unit Development plan – Limitation on authority to modify zoning
- 20.30D.175 Planned Unit Development plan – Authorized activity
- 20.30D.195 Planned Unit Development plan – Merger with subdivision
- 20.30D.200 Planned Unit Development plan – Effect of approval
- 20.30D.250 Planned Unit Development plan – Phased development
- 20.30D.255 Planned Unit Development plan – Map designation
- 20.30D.280 Merger with Binding Site Plan
- 20.30D.285 Amendment of an approved Planned Unit Development

Part 20.30E Administrative Conditional Use Permit

- 20.30E.110 Scope
- 20.30E.115 Applicability
- 20.30E.120 Purpose
- 20.30E.140 Decision criteria
- 20.30E.160 Merger with Binding Site Plan
- 20.30E.165 Periodic review
- 20.30E.170 Modification/revocation
- 20.30E.175 Modification or addition to an approved project or decision

Part 20.30F Design Review

- 20.30F.110 Scope
- 20.30F.115 Applicability
- 20.30F.116 City Council Design Review
- 20.30F.120 Purpose
- 20.30F.125 Who may apply
- 20.30F.145 Decision criteria
- 20.30F.165 Merger with Binding Site Plan
- 20.30F.170 Planning Commission Design Review
- 20.30F.175 Modification or addition to an approved Design Review project or decision
- 20.30F.180 Recording required

Part 20.30G Variance from the Land Use Code

- 20.30G.110 Scope
- 20.30G.115 Applicability
- 20.30G.120 Purpose
- 20.30G.140 Decision criteria
- 20.30G.150 Limitation on authority

Part 20.30H (Reserved)

Part 20.30I Amendment and Review of the Comprehensive Plan

- 20.30I.110 Scope and background
- 20.30I.115 Applicable process
- 20.30I.120 Purpose
- 20.30I.130 Initiation of amendment proposals
- 20.30I.140 Threshold review decision criteria
- 20.30I.150 Final review decision criteria

Part 20.30J Amendments to the Text of the Land Use Code

- 20.30J.110 Scope
- 20.30J.115 Applicability
- 20.30J.120 Purpose
- 20.30J.125 Who may initiate
- 20.30J.130 Applicable procedure
- 20.30J.135 Decision criteria

Part 20.30K Interpretation of the Land Use Code

- 20.30K.110 Scope
- 20.30K.115 Applicability
- 20.30K.120 Purpose
- 20.30K.130 Applicable procedure
- 20.30K.135 Submittal requirements
- 20.30K.140 Factors for consideration
- 20.30K.150 Effect of interpretation
- 20.30K.155 Time limitation

Part 20.30M Temporary Use Permit

- 20.30M.110 Scope
- 20.30M.115 Applicability
- 20.30M.120 Purpose
- 20.30M.125 Applicable procedure
- 20.30M.130 Who may apply
- 20.30M.140 Decision criteria
- 20.30M.145 Time limitation
- 20.30M.150 Limitation on activity
- 20.30M.155 Removal of temporary use
- 20.30M.160 Abatement of temporary use
- 20.30M.170 Screening of off-site construction parking areas

Part 20.30N Home Occupation Permit

- 20.30N.110 Scope
- 20.30N.115 Applicability
- 20.30N.120 Purpose
- 20.30N.125 Who may apply
- 20.30N.140 Decision criteria
- 20.30N.145 Conditions
- 20.30N.150 Time limitation
- 20.30N.155 Quarterly report
- 20.30N.160 Revocation of Home Occupation Permit
- 20.30N.165 Assurance device

Part 20.30P Critical Areas Land Use Permit

- 20.30P.110 Scope
- 20.30P.115 Applicability
- 20.30P.120 Purpose
- 20.30P.125 Who may apply
- 20.30P.130 Applicable procedure
- 20.30P.140 Decision criteria
- 20.30P.150 Time limitation
- 20.30P.155 Extension
- 20.30P.160 Assurance device
- 20.30P.170 Hold harmless

20.30P.180 Critical area report – Additional review procedures

Part 20.30R (Reserved)

Part 20.30S Vendor Cart Permit

- 20.30S.110 Scope
- 20.30S.115 Applicability
- 20.30S.120 Purpose
- 20.30S.125 Applicable procedure
- 20.30S.130 Who may apply
- 20.30S.135 Submittal requirements
- 20.30S.140 Decision criteria

Part 20.30T Reasonable Accommodation

20.30T Reasonable accommodation

Part 20.30U Temporary Encampment Permit

- 20.30U.110 Scope
- 20.30U.115 Applicability
- 20.30U.120 Who may apply
- 20.30U.121 Submittal requirements
- 20.30U.122 Applicable procedures
- 20.30U.125 Use requirements
- 20.30U.127 Hardship exception
- 20.30U.130 Decision criteria
- 20.30U.135 Revocation of Temporary Encampment Permit

Part 20.30V Master Development Plan

- 20.30V.110 Scope
- 20.30V.115 Applicability
- 20.30V.120 Purpose
- 20.30V.130 Phasing plan
- 20.30V.140 Binding Site Plan
- 20.30V.150 Decision criteria
- 20.30V.160 Modification or addition to an approved Master Development Plan
- 20.30V.170 Land area computation
- 20.30V.180 Recording required
- 20.30V.190 Extended vesting period for Master Development Plans and associated Design Review approval

Section 41. Part 20.30C of the Bellevue Land Use Code is hereby amended to read as follows:

Part 20.30C (Reserved)

Section 42. Part 20.30H of the Bellevue Land Use Code is hereby amended to read as follows:

Part 20.30H (Reserved)

Section 43. Part 20.30R of the Bellevue Land Use Code is hereby amended to read as follows:

Part 20.30R (Reserved)

Section 44. Section 20.35.015 of the Bellevue Land Use Code is hereby amended to read as follows:

20.35.015 Framework for decisions.

- A. Land use decisions, other than decisions on applications for Shoreline Conditional Use Permits, Shoreline Substantial Development Permits, and Variances to the Shoreline Master Program, are classified into five processes based on who makes the decision, the amount of discretion exercised by the decisionmaker, the level of impact associated with the decision, the amount and type of public input sought, and the type of appeal opportunity. Refer to LUC 20.25E.100-.200 for procedures, permits, and decisions related to Shoreline Conditional Use Permits, Shoreline Substantial Development Permits, and Variances to the Shoreline Master Program.
- B. Process I decisions are quasi-judicial decisions made by the Hearing Examiner on project applications. The following types of applications require a Process I decision:
 - 1. Conditional Use Permits (CUPs);
 - 2. Preliminary Subdivision Approval (Plat); and
 - 3. Planned Unit Development (PUD) Approval; provided, that applications for CUPs, preliminary plats, and PUDs, within the jurisdiction of a Community Council pursuant to RCW 35.14.040, shall require a Process III decision.
- C. Process II decisions are administrative land use decisions made by the Director. Threshold determinations under the State Environmental Policy Act (SEPA) made by the Environmental Coordinator and Sign Code variances are also Process II decisions. (See the Environmental Procedures Code, BCC 22.02.034, and Sign Code, BCC 22B.10.180.) The following types of applications require a Process II decision:
 - 1. Administrative amendments;
 - 2. Administrative Conditional Use;
 - 3. Design Review;

4. Home Occupation Permit;
 5. Interpretation of the Land Use Code;
 6. Preliminary Short Plat;
 7. Variance;
 8. Critical Area Land Use Permits;
 9. Master Development Plans;
 10. Design and Mitigation Permits required pursuant to the Light Rail Overlay Part 20.25M LUC; and
 11. Review under State Environment Policy Act (SEPA) when not consolidated with another permit.
- D. Process III decisions are quasi-judicial decisions made by the City Council. The following types of applications require a Process III decision:
1. Site-specific or project-specific rezone;
 2. Conditional Use, Preliminary Plat, and Planned Unit Development projects subject to the jurisdiction of a Community Council pursuant to RCW 35.14.040; and
 3. A rezone of any property to the OLB-OS Land Use District designation.
- E. *(Process IV decisions – no change)*
- F. *(Process V decisions – no change)*
- G. *(Other types of land use applications and decisions made by the Director – no change)*

Section 45. Section 20.35.020 of the Bellevue Land Use Code is hereby amended to read as follows:

20.35.020 Pre-application conferences.

A pre-application conference is required prior to submitting an application for Conditional Use Permits, preliminary subdivision approval, planned unit developments, Master Development Plans, Design and Mitigation Permits required pursuant to the Light Rail Overlay Part 20.25M LUC, and Design Review projects, unless waived by the Director.

Section 46. Section 20.35.070 of the Bellevue Land Use Code is hereby amended to read as follows:

20.35.070 Appeal of City land use decisions to Superior Court.

- A. General. A final City decision on a land use permit application (Processes I through III and V) may be appealed to Superior Court by filing a land use petition meeting the requirements set forth in Chapter 36.70C RCW. The petition must be filed and served upon all necessary parties as set forth in state law and within the 21-day time period as set forth in RCW 36.70C.040. Notwithstanding the provisions of this paragraph, the time for filing an appeal of a final Process II land use action that has been merged with a Process I or III application will be tolled until the Process I or III decisions are final. Requirements for fully exhausting City administrative appeal opportunities, if any are available, must be fulfilled.
- B. A final City action on a legislative nonproject land use proposal (Process IV) may be appealed by petition to the Growth Management Hearings Board as set forth in LUC 20.35.440.C and RCW 36.70A.290.

Section 47. Section 20.35.150.D of the Bellevue Land Use Code is hereby amended to read as follows:

20.35.150.D Appeal of Hearing Examiner decision.

D. Effect of Decision.

The decision of the City Council on the application is the final decision of the City and may be appealed to Superior Court as provided in LUC 20.35.070.

Section 48. Section 20.35.200.C of the Bellevue Land Use Code is hereby amended to read as follows:

20.35.200.C Process II: Administrative decisions.

- C. Process II decisions of the Director and SEPA threshold determinations are final decisions, effective on the day following the expiration of any associated administrative appeal period, except that for projects where no person or entity submitted comments prior to the date the final decision was issued pursuant to LUC 20.35.250.A.1, the Process II decision is a final decision effective on the date of issuance. If an administrative appeal is filed by a person or entity that submitted comments prior to the date the final decision was issued as set forth in LUC 20.35.250.A.1, the decision is not final until the appeal is heard and decided by the City Hearing Examiner, or the Growth Management Hearings Board pursuant to LUC 20.35.250.C and RCW 36.70A.290.

Section 49. Section 20.35.210, Table 20.35.210.A, of the Bellevue Land Use Code is hereby amended to read as follows:

20.35.210 Notice of application.

- A. Notice of application for Process II land use decisions shall be provided within 14 days of issuance of a notice of completeness as follows:

Table 20.35.210.A

Application Type	Publish	Mail	Sign
Administrative Amendment	X	X	X
Administrative Conditional Use	X	X	X
Design Review	X	X	X
Home Occupation Permit	X	X	
Interpretation of Land Use Code	X		
Preliminary Short Plat	X	X	X
Variance	X	X	
Critical Areas Land Use Permit	X	X	
SEPA Review (when not consolidated with another permit)	X		

Section 50. Section 20.35.250 of the Bellevue Land Use Code is hereby amended to read as follows:

20.35.250 Appeal of Process II decisions.

A. Process II decisions, except for SEPA Threshold Determinations on Process IV actions, may be appealed as follows:

1. Who May Appeal. The project applicant or any person who submitted written comments prior to the date the decision was issued may appeal the decision.
2. Form of Appeal. A person appealing a Process II decision must file a written statement setting forth:
 - a. Facts demonstrating that the person is adversely affected by the decision;
 - b. A concise statement identifying each alleged error and the manner in which the decision fails to satisfy the applicable decision criteria;
 - c. The specific relief requested; and
 - d. Any other information reasonably necessary to make a decision on the appeal.

The written statement must be filed together with an appeal notification form available from the Office of the City Clerk. The appellant must pay such appeal fee, if any, as established by ordinance or resolution at the time the appeal is filed.

3. Time and Place to Appeal. The written statement of appeal, the appeal notification form, and the appeal fee, if any, must be received by the City Clerk no later than 5:00 p.m. on

the 14th day following the date of publication of the decision of the Director; except that if the Director's decision is consolidated with a threshold Determination of Nonsignificance under the State Environmental Policy Act for which a comment period pursuant to WAC 197-11-340 must be provided, the appeal period for the consolidated decision shall be 21 days.

B. SEPA Threshold Determinations on Process IV and Process V Actions.

1. Process IV. An appeal of a SEPA threshold determination on a Process IV action shall be filed together with an appeal of the underlying Process IV action. The appeal shall be by petition to the Growth Management Hearings Board and shall be filed within the 60-day time period set forth in RCW 36.70A.290.
2. Process V. An appeal of a SEPA threshold determination on a Process V action shall be filed together with an appeal of the underlying Process V action. The appeal shall be as set forth in LUC 20.35.070 and 20.35.540.

C. Notice of Appeal Hearing.

If a Process II decision is appealed, a hearing before the City Hearing Examiner shall be set and notice of the hearing shall be mailed to the appellant, the applicant, and all parties of record by the applicable Department Director. Notice shall be mailed no less than 14 days prior to the appeal hearing; except that if the Process II decision has been consolidated with a recommendation on a Process I or Process III application, any appeal of the Process II decision shall be consolidated with the Process I or Process III public hearing. No separate notice of a Process II appeal need be provided if the public hearing has already been scheduled for the Process I or Process III component of an application.

D. Hearing Examiner Hearing.

The Hearing Examiner shall conduct an open record hearing on a Process II appeal. The appellant, the applicant, and the City shall be designated parties to the appeal. Each party may participate in the appeal hearing by presenting testimony or calling witnesses to present testimony. Interested persons, groups, associations, or other entities who have not appealed may participate only if called by one of the parties to present information; provided, that the Examiner may allow nonparties to present relevant testimony if allowed under the Examiner's Rules of Procedure.

E. Hearing Examiner Decision on Appeal.

Within 10 working days after the close of the record for the Process II appeal, the Hearing Examiner shall issue a decision to grant, grant with modifications, or deny the appeal. The Examiner may grant the appeal or grant the appeal with modification if:

1. The appellant has carried the burden of proof; and
2. The Examiner finds that the Process II decision is not supported by a preponderance of the evidence.

The Hearing Examiner shall accord substantial weight to the decision of the applicable Department Director and the Environmental Coordinator.

F. Appeal of Hearing Examiner Decision.

A final decision by the Hearing Examiner on a Process II application may be appealed to Superior Court as set forth in LUC 20.35.070.

G. Time Period to Complete Appeal Process.

In all cases except where the parties to an appeal have agreed to an extended time period, the administrative appeal process shall be completed within 90 days from the date the original administrative appeal period closed. Administrative appeals shall be deemed complete on the date of issuance of the Hearing Examiner's decision on the appeal.

Section 51. Section 20.40.500.A.1 of the Bellevue Land Use Code is hereby amended to read as follows:

20.40.500.A Vesting and expiration of vested status of land use permits and approvals.

A. Vesting for Permits and Approvals.

1. Permits and Approvals Other than Subdivisions and Short Subdivisions and Shoreline Permits. Applications for all land use permits and approvals except subdivisions and short subdivisions and shoreline permits (Shoreline Conditional Use, Shoreline Substantial Development Permit, and Variance to the Shoreline Master Program) shall be considered under the Land Use Code and other land use control ordinances in effect on the date that a fully complete Building Permit application, meeting the requirements of BCC 23.05.090E and F, is filed. Vesting provisions for Shoreline Permits are provided in LUC 20.25E.250.C. If a complete Building Permit application is not filed, the land use permit or approval shall become vested to the provisions of the Land Use Code upon the date of the City's final decision on the land use permit or approval.

Section 52. Section 20.40.500.B.1 of the Bellevue Land Use Code is hereby amended to read as follows:

20.40.500.B Vesting and expiration of vested status of land use permits and approvals.

B. Expiration of Vested Status of Land Use Permit or Approval.

1. The vested status of a land use permit or approval shall expire as provided in subsection B.2 of this section; provided, that:
 - a. Variances shall run with the land in perpetuity if recorded with King County Department of Records and Elections within 60 days following the City's final action; and
 - b. Critical Areas Land Use Permits shall expire as set forth in LUC 20.30P.150; and
 - c. Lots in a subdivision or short subdivision shall be vested against changes in the Land Use Code, except for changes that address a serious threat to the public health or

safety as found by the City Council when such change is adopted, for a period of five years following the date of recording of the final plat or final short plat; and

d. The time period established pursuant to subsection B.2 of this section shall not include the time during which an activity was not actively pursued due to the pendency of litigation which may materially affect rights of the applicant for the permit or approval related to that permit or approval.

e. Expiration of Shoreline Permits shall occur pursuant to LUC 20.25E.250.C.

Section 53. Section 20.50.010 of the Bellevue Land Use Code is hereby amended to delete the definition of "Agricultural Lands, Prime".

New CAO Update Section. Section 20.50.010 of the Bellevue Land Use Code is hereby amended to delete the definition of "Area of Special Flood Hazard".

Commented [HC41]: Comp Plan Consistency- Change in na for consistency with the Comprehensive Plan

Section 54. Section 20.50.012 of the Bellevue Land Use Code is hereby amended to delete the definition of "Boathouse".

Section 55. Section 20.50.012 of the Bellevue Land Use Code is hereby amended to revise the definition of "Building Height" to read as follows:

20.50.012 B definitions.

Building Height. The vertical distance measured from the average elevation of the finished grade around the building or building segment to the highest point of a flat roof, or to the mean height between the eaves and ridge of a pitched roof. Specifically excluded from this definition and from the regulation of maximum building height are structural elements not intended for habitation and not exceeding 15 feet above the maximum building height including penthouses for mechanical and elevator equipment, chimneys, wireless communication facility antenna arrays, smoke and ventilation stacks, flag poles, mechanical and elevator equipment, and parapet walls designed solely to screen mechanical and elevator equipment. This definition does not apply to projects located within a Transition Area Design District (refer to LUC 20.25B.040), the Shoreline Overlay District (refer to LUC 20.25E.280 – "Height"), Single-Family Land Use Districts (refer to the definition of Building Height – Single-Family Land Use Districts contained in this section; see also LUC 20.10.440, Note (16)), and to the F1 Land Use District (refer to LUC 20.25F1.040, Footnote (6)).

Section 56. Section 20.50.014 of the Bellevue Land Use Code is hereby amended to revise the definition of "Community Club" to read as follows:

20.50.014 C definitions.

Community Club. A formally constituted nonprofit association or corporation made up of the residents of a given area. This definition does not apply with the Shoreline Overlay District (refer to LUC 20.25E.280 – "Community Club").

New CAO Update Section. Section 20.50.014 of the Bellevue Land Use Code is hereby amended revise the definition of "Critical Areas" to read as follows:

Critical Areas. Areas required to be protected under the Growth Management Act, Chapter 36.70A RCW. The city's critical areas are designated in Part 20.25H LUC, and include wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas, and frequently flooded areas. Fish and wildlife habitat conservation areas are comprised of streams, habitats associated with species of local importance, and steep slopes. Areas with a critical recharging effect on aquifers used for potable water are not designated by the city.

Commented [A42]: Described for comp plan consistency

Section 57. Section 20.50.016 of the Bellevue Land Use Code is hereby amended to revise the definition of "Development" to read as follows:

20.50.016 D definitions.

Development. All structures and other modifications of the natural landscape above and below ground or water, on a particular site. For the purposes of Part 20.25E LUC, regulation for the Shoreline Overlay District, a different definition is used. See "Shoreline Development" in LUC 20.25E.280.

Section 58. Section 20.50.020 of the Bellevue Land Use Code is hereby amended to revise the definition of "Fair Market Value" to read as follows:

20.50.020 F definitions.

Fair Market Value. The expected price at which the development can be sold to a willing buyer. For developments which involve nonstructural operations such as dredging, drilling, dumping, or filling, the fair market value is the expected cost of hiring a contractor to perform the operation or where no such value can be calculated, the total of labor, equipment use, transportation, and other costs incurred for the duration of the permitted project. This definition does not apply with the Shoreline Overlay District (refer to LUC 20.25E.280 – "Fair Market Value").

Section 59. Section 20.50.020 of the Bellevue Land Use Code is hereby amended to revise the definition of "Fill" to read as follows:

20.50.020 F definitions.

Fill. A solid material which increases ground surface elevation. This definition does not apply with the Shoreline Overlay District (refer to LUC 20.25E.280 – "Fill").

New CAO Update Section. Section 20.50.020 of the Bellevue Land Use Code is hereby amended to add a definition of "Frequently Flooded Areas" to read as follows:

Frequently Flooded Areas. The land in the floodplain subject to a one percent or greater chance of flooding in any given year as calculated in the Storm and Surface Water Utility Code, Chapter 24.06 BCC. This area is identified in an engineering report entitled "The Flood Insurance Study for King County" dated April 19, 2005, with an accompanying flood insurance map(s) and any effective revisions thereto.

Commented [A43]: Consistency with the Comprehensive PI

Section 60. Section 20.50.040 of the Bellevue Land Use Code is hereby amended to delete the definition of "Ordinary High Water Mark".

Section 61. Section 20.50.046 of the Bellevue Land Use Code is hereby amended to delete the definition of "Shoreland, Shoreline".

Section 62. Section 20.50.046 of the Bellevue Land Use Code is hereby amended to revise the definition of "Structure" to read as follows:

20.50.046 S definitions.

Structure. A combination of materials constructed and erected permanently on or under the ground or attached to something having a permanent location on or under the ground. Not included are residential fences, retaining walls less than 30 inches in height, rockeries less than 30 inches in height and similar improvements of a minor character. For the purposes of Part 20.25E LUC, regulations for the Shoreline Overlay District, a different definition applies. See LUC 20.25E.280 – "Structure".

Section 63. If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance is declared unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining parts of this ordinance.

Section 64. This resolution shall take effect and be in force five/thirty (5/30) days after legal publication.

PASSED by the City Council this _____ day of _____, 201____, and signed in authentication of its passage this _____ day of _____, 201____.

(SEAL)

Claudia BalducciJohn Stokes, Mayor

Approved as to form:

Lori M. Riordan, City Attorney

Attest:

Myrna L. BasichKyle Stannert, City Clerk

MEMORANDUM



Date: September 21, 2016
 To: City of Bellevue Development Services Department
 From: The Watershed Company
 Project Number: 160349
 Project Name: Bellevue CAO Update

Subject: Proposed CAO Revisions

Revisions to the Bellevue critical areas ordinance (CAO) are needed to ensure consistency with the 2015 Comprehensive Plan update, the Growth Management Act (GMA), and with Best Available Science (BAS). The basis for and effects of proposed changes are discussed below. This memo classifies the proposed revisions as either substantive (Part 1) or non-substantive (Part 2). Non-substantive revisions include those changes that do not change the way the CAO is administered or measurably affect the applicant in terms of scope of work or amount of time associated with obtaining a permit. This memo provides a summary discussion of each of the proposed revisions classified as substantive.

Part 1 – Substantive Revisions

Proposed revisions to the CAO classified as substantive with respect to the effect on the applicant are set forth below in Table 1. For each proposed revision, Table 1 indicates whether the revision is primarily proposed for consistency with the City’s Comprehensive Plan or the GMA, or for consistency with BAS, or both. Following Table 1 is a summary discussion of each proposed revision, including the basis for the revision and its potential impact on the property owner.

Table 1. Proposed substantive revisions to CAO (in order of potential significance)

Item	Substantive Revision	LUC Section	GMA/ Comp Plan	BAS
1	Update this section to classify wetlands and assign wetland buffers based on the most recent version of the Washington State Wetland Rating System for Western Washington.	20.25H.095		✓

2	Revise the minimum toe-of-slope setback verbiage, currently a minimum of 75 feet, to site-specific geotechnical studies to reflect uniqueness of individual landslide hazard sites and that adjustments in the toe-of-slope setback may be required depending on site topography and conditions that may be conducive to fast moving, shallow debris slides and flows.	20.25H.120	✓
3	Revise language for trails on single-family lots in LUC 20.25H.055.C.3.f.	20.25H.055	✓

Item 1 Discussion

Proposed Revision

Update reference to 2014 Wetland Rating System, as amended. The updated wetland rating system uses different wetland scoring scales. The City's standard wetland buffer widths in LUC 20.25H.095.C.1.a.i (displayed in Table 2) should be updated to correspond with the updated wetland rating system.

Table 2. Current City of Bellevue wetland buffers under 2004 and 2014 rating systems. Proposed changes to required buffers are highlighted and noted in parentheses.

	Habitat Score		
	Low	Moderate	High
2004 Rating System	<20	20-28	29-36
2014 Rating System	<4	5-7	8-9
Category I wetlands	75	110	225
Natural heritage wetlands and bogs	190		190 (225)*
Category II wetlands	75	110	225
Category III wetlands	60	110	N/A (225)**
Category IV wetlands over 2,500 square feet	40		

* Buffer for Category I natural heritage wetlands and bogs is presently 190 feet, but for wetlands with a high habitat score, the buffer should be increased to 225.

** Buffer for Category III wetlands with a high habitat score is not specified under current City code. Per Ecology guidance, a buffer of 225 feet should be applied where this occurs.

Basis

City code currently requires the classification of wetlands based on the Washington State Wetland Rating System for Western Washington, Ecology Publication Number 04-06-025, published August 2004. Ecology updated this publication in 2014.

While local jurisdictions are not required to use the revised rating system, Ecology strongly encourages its use. If a local jurisdiction chooses not to use Ecology's wetland rating system, it must provide a rationale for this decision according to WAC 365-190-090(3).

Ecology guidance recommends a more graduated buffer scale from 105 to 165 feet for "moderate" habitat scores of 5 to 7, but the current buffer approach is acceptable. It should be noted that use of the standard buffer assumes that the buffer is vegetated with a native plant community appropriate for the ecoregion. The City currently addresses the quality of vegetation within the buffer through its Critical Areas Report evaluation process (LUC 20.25H.230).

Potential Impact

Process

Under the current code, all applicants proposing new development adjacent to wetlands are required to have wetland delineations and ratings completed by a qualified professional. This standard would not change under the proposed code.

Because both State and federal agencies use the 2014 Wetland Rating System, in cases where direct wetland impacts are proposed, use of the updated rating system would eliminate the need for applicants to pay consultants to conduct separate ratings under both the 2004 and 2014 Wetland Rating Systems.

With the adoption of its new rating system, Ecology is placing a new emphasis on the submittal of figures that clearly support the rating findings; this may take incrementally more time for consultants to complete. Creation of these figures was encouraged previously, but is now a standard requirement to appropriately rate wetlands. Regardless of rating system, the City should expect that applicants may face a slight increase in costs associated with preparation of these figures.

Change in Buffer Widths

One proposed change (see highlighting in the second row of Table 2) is needed to address bogs and natural heritage wetlands with a high habitat score. Since these wetlands represent unique and vulnerable habitats, they would also be rated as Category I wetlands. Buffer widths for these wetlands should be at least as wide as other Category I wetlands. This change is not expected to affect property owners, as we are not aware of any bog or natural heritage wetlands within the City that would meet the criteria for a "High" habitat score.

A second proposed change (see highlighting in the fourth row of Table 2) is needed to address buffers for Category III wetlands with a high habitat score. While Category III wetlands with a high habitat score are unlikely to frequently occur in the City, such a rating could occasionally occur. Buffers for Category III wetlands with a high habitat score are not currently specified under current City code.

Under the current code, additional wetland buffers do not apply to properties with an established Native Growth Protection Area (NGPA) or Native Growth Protection Easement (NGPE). The proposed code revisions also indicate that additional wetland buffers do not apply to properties with previously approved wetland critical area land use permits (CALUPs).

Item 2 Discussion

Proposed Revision

2. Minimum Setback of Structures.
 - a. Landslide hazards ~~Toe-of-slope setback of 75 feet~~ Determined based on site-specific geotechnical studies to reflect site characteristics, including site topography and conditions that may be conducive to fast moving, shallow debris slides and flows.

Basis

Recent landslide events, such as the March 2014 Oso Landslide, have reinforced the uncertainties of runout distances associated with fast-moving debris slides or flows. The determination of setback distances from the toe of landslide hazard areas should be based on individual site characteristics that would include topography and geomorphology that occur at each site. Of particular concern are slopes with incised drainages or ravines that are sources of accumulated alluvium and slope debris and provide a source area for a debris flow or slide under specific circumstances.

Potential Impact

Process

For development projects proposed in proximity to the toe of landslide hazard areas, the proposed revision would require site-specific geotechnical review in place of a standard structure setback.

For most development in proximity to a potential landslide hazard area, site review by a geotechnical professional would be required under the existing code to 1) determine whether a slope meets the criteria of a landslide hazard area or 2) meet the requirements for a clearing and grading permit. A geotechnical engineering report is currently required for all clearing and grading permit applications. Pursuant to BCC 23.76.035, a clearing and grading permit is required for a project that involves any of eight criteria, with some exemptions. Key criteria include:

- Any clearing, filling, or excavation in a critical area or critical area buffer
- Fill and/or excavation totaling over 50 cubic yards
- Creation or addition of 2,000 square feet, or greater, of new, replaced, or new plus replaced impervious surface area
- Over 1,000 square feet of clearing, as measured at the ground level

For development projects in proximity to the toe of landslide hazard areas that would trigger geotechnical review through a clearing and grading permit, the proposed revision would only add a requirement that the geotechnical review address the appropriate setback distance from any landslide hazard areas present. For development projects proposed in proximity to the toe of landslide hazard areas that would not trigger geotechnical review pursuant to BCC 23.76.035, the proposed revision would introduce a new requirement for geotechnical review.

Change in setback

The effect of the proposed modification is likely to vary depending on site conditions. In some cases, the resulting recommended setback may be less than required under the current code, and in other cases, the resulting setback may be greater than required under current code. The proposed revision is intended to help ensure the long-term safety of the applicant.

Item 3 Discussion

Proposed Revision

f. Private Nonmotorized Trails. New nonmotorized trails within the critical area or critical area buffer are limited to those serving nonresidential uses, multifamily residential uses and more than one single-family lot. Private nonmotorized trails shall comply with the performance standards for trails in subsection C.3.g of this section. Nothing in this section prohibits the creation of a soft surface nonmotorized trail in a critical area buffer on a single-family lot for use of the residents of that lot. Such trail shall not exceed four feet in width, and shall not involve the removal of any significant trees or bank-stabilizing roots. In stream and wetland buffers, trails shall not be generally parallel to the stream or wetland edge ~~closer than a distance of 25 feet~~, shall be located in the outer 25 percent of the buffer, and shall be located no closer than 25 feet from the upland edge of the wetland or stream. Any clearing of brush or vegetation shall be the minimum necessary, and shall be with hand tools only.

Basis

LUC 20.25H.055.C.3.f states that in stream and wetland buffers on single-family lots, trails shall not be generally parallel to the stream or wetland edge closer than a distance of 25 feet. Guidance from Ecology currently indicates that walkways and trails should be located in the outer 25 percent of a wetland buffer area. This guidance should also apply to streams.

Potential Impact

This proposed revision would not apply to legally existing trails in stream and wetland buffers on single-family lots, which would be considered nonconforming development. For new trails on single-family lots, this proposed revision would not preclude their development in stream and wetland buffers, but would affect their proximity to streams and wetlands. The actual on-the-ground impact of the proposed revision would vary depending on the widths of the stream and wetland buffers where trail development is proposed.

Part 2 – Non-substantive Revisions

Proposed revisions to the CAO classified as non-substantive, with respect to their effect on the applicant, are set forth below in Table 3. As in Table 1, for each proposed revision, Table 3 indicates whether the revision is primarily proposed for consistency with the City's comprehensive plan or the GMA, or for consistency with BAS, or both.

Table 3. Proposed non-substantive revisions to CAO (in order of LUC section)

Item	Substantive Revision	LUC Section	GMA/ Comp Plan	BAS
1	Clarify applicability of fish and wildlife habitat conservation areas.	20.25H.025 (and others)	✓	
2	Clarify applicability of frequently flooded areas.	20.25H.025 (and others)	✓	
3	Clarify applicability of critical aquifer recharge areas.	20.25H.025 (and others)	✓	
4	Update culvert design guidance document referenced in LUC 20.25H.055.C.3.e.	20.25H.055		✓
5	For buffers on eroding stream banks, require recent documentation of top-of-bank.	20.25H.075		✓
6	Reference stormwater treatment requirements.	20.25H.080 and 20.25H.100		✓
7	Require wetlands be delineated using the approved federal wetlands delineation manual and applicable regional supplements.	20.25H.095	✓	✓
8	Include seismic hazard areas in critical areas designation for purposes of disclosure only.	20.25H.120	✓	✓
9	Highlight that the City will require floodplain developments to meet National Flood Insurance Program requirements related to the protection of floodplain ecological functions.	20.25H.180		✓

Table 1: Proposed regulatory changes to CAC (in order of priority)

Priority	Proposed regulatory change	Impact
1	Introduce a new regulatory regime for the CAC, including a new set of rules and a new regulatory body.	Estimated cost: £100 million
2	Introduce a new set of rules for the CAC, including a new set of rules for the CAC and a new set of rules for the CAC.	Estimated cost: £50 million
3	Introduce a new set of rules for the CAC, including a new set of rules for the CAC and a new set of rules for the CAC.	Estimated cost: £25 million
4	Introduce a new set of rules for the CAC, including a new set of rules for the CAC and a new set of rules for the CAC.	Estimated cost: £12.5 million
5	Introduce a new set of rules for the CAC, including a new set of rules for the CAC and a new set of rules for the CAC.	Estimated cost: £6.25 million
6	Introduce a new set of rules for the CAC, including a new set of rules for the CAC and a new set of rules for the CAC.	Estimated cost: £3.125 million
7	Introduce a new set of rules for the CAC, including a new set of rules for the CAC and a new set of rules for the CAC.	Estimated cost: £1.5625 million
8	Introduce a new set of rules for the CAC, including a new set of rules for the CAC and a new set of rules for the CAC.	Estimated cost: £0.78125 million
9	Introduce a new set of rules for the CAC, including a new set of rules for the CAC and a new set of rules for the CAC.	Estimated cost: £0.390625 million
10	Introduce a new set of rules for the CAC, including a new set of rules for the CAC and a new set of rules for the CAC.	Estimated cost: £0.1953125 million



MEMORANDUM

DATE: September 22, 2016
TO: East Bellevue Community Council (EBCC)
FROM: Liz Stead, Urban Design Planning Manager
SUBJECT: Kelsey Creek Bldg. E
106 148th Avenue SE
16-128897-LD

Development Services Staff is updating the East Bellevue Community Council (EBCC) on the Design Review application and SEPA Threshold Determination to construct a new 5,853 square foot commercial building located at the corner of Main Street and 148th Avenue SE. Staff attended the EBCC meeting in July to provide an introduction to the project as presented by the applicant, Kelsey Creek Center, LLC.

The project is moving through the Design Review process in a timely manner. The applicant is currently responding to revision requests from Development Services staff and should be submitting their most current drawings reflecting those revisions to the City in the beginning of October. We anticipate that there will be no further revision cycles based on conversations with the applicant and will be planning to publish the Design Review approval in November of 2016 assuming the applicant provides us with their revisions in the anticipated time frame.

The applicant has not submitted building permit drawings to date, so I am not able to provide an estimated construction schedule at this time. They have submitted an application for their Clearing and Grading permit which can be approved after the Design Review staff report is published.

If you have any further questions about the progress of the project, please contact me directly either via telephone at 425.452.2725 or email at estead@bellevuewa.gov and I will be happy to try and be of further assistance.

Thank-you,

A handwritten signature in black ink, appearing to read "Liz Stead", with a circular flourish at the end.

Liz Stead
Urban Design Planning Manager
Development Services Department



MEMORANDUM

DATE: 1/22/2013

TO: City Council

FROM: Planning Department

SUBJECT: 156 149th Avenue SE
14-12647-01

The applicant, Kacey Creek Center, LLC, is requesting a rezoning of 156 149th Avenue SE from Single-Family Detached (SFD) to Community Center (CC). The applicant is requesting a rezoning to allow for the development of a community center on the site. The applicant is requesting a rezoning to allow for the development of a community center on the site. The applicant is requesting a rezoning to allow for the development of a community center on the site.

The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process.

The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process.

The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process. The rezoning is being requested through the City of Bellevue's rezoning process.

Thank you

[Signature]

City Council
1500 1st Avenue North
Bellevue, WA 98005

East Bellevue Community Council
Summary Minutes of Regular Meeting

September 6, 2016
6:30 p.m.

Lake Hills Clubhouse
Bellevue, Washington

PRESENT: Chair Capron, Vice Chair Hummer, and Councilmembers Gooding, Hughes, and Kasner

ABSENT: None.

STAFF: Ian Toms, Client Services Division Manager
Stephanie Dompier, Program Administrator

1. **CALL TO ORDER**

The meeting was called to order at 6:31 p.m. with Chair Capron presiding.

2. **ROLL CALL**

The Deputy City Clerk called the roll. All Councilmembers were present.

3. **FLAG SALUTE**

Chair Capron led the flag salute.

4. **COMMUNICATIONS: WRITTEN AND ORAL**

Jens Nedrud, Senior Project Manager, Puget Sound Energy (PSE), said he wanted to correct a misstatement from the last meeting. He said East Bellevue would be affected by rolling blackouts along with the entire Eastside area, if corrective actions were needed. He said the need for the Energize Eastside project is real and affects residents' access to reliable power. He said a national pipeline safety expert is continuing its study regarding collocating the transmission lines with the oil pipeline. Additional photo simulation will be added based on feedback received at the last EBCC meeting. PSE continues to refine its project design, including pole locations. The project will replace every four poles with one pole. Mr. Nedrud said the City recently released The Phase 2 DEIS (Environmental Impact Statement) Scoping Report. He said PSE is committed to keeping the EBCC updated on the project.

Councilmember Kasner questioned the schedule for the remainder of the year. Mr. Nedrud said the City's Phase II scoping work has been completed, which will result in a Phase II Draft EIS (DEIS) to be published in January. There will be a public comment period before the Final EIS (FEIS) is completed. Responding to Mr. Kasner, Mr. Nedrud said rolling blackouts would be part

of a corrective action plan, if needed. Mr. Nedrud said the Energize Eastside project travels through four cities. Construction is anticipated to last for four to five months.

Councilmember Kasner thanked Mr. Nedrud for the update.

Councilmember Hughes observed that his vote as an EBCC member pertains to the 16 blocks through East Bellevue. He said it is up to another entity whether the project is built, but the EBCC's role is to address the portion of the project through the EBCC jurisdiction.

Responding to Mr. Kasner, Mr. Nedrud said that, after the FEIS is issued, PSE will make a final decision on the route and submit permit applications, which is tentatively set for early next year.

Responding to Don Boettiger, Mr. Nedrud said the existing poles are approximately 55 feet tall, and the new poles will be up to 95 feet. He said PSE is preparing a photo simulation to demonstrate how the project will look.

Chair Capron thanked Mr. Nedrud for the update.

Michelle Wannamaker expressed concern about the Eastgate/I-90 Land Use Code Amendment under consideration by the City Council. She said most of the area is not within the EBCC jurisdiction. However, development in that area will affect all areas of East Bellevue. She said the plan will add 6,000-9,000 new employees and approximately 1,000 new residents in Eastgate. She said Metro does not plan any improvements to its Eastgate transit services until 2025. She expressed concern that the City has not funded needed traffic congestion relief projects in Eastgate. She would like the City to delay approval of the LUCA until transportation improvements are completed. She said the City's traffic study of the area was completed in 2010.

Chair Capron said the EBCC's future vote on the LUCA will be restricted to the Shell gas station and the Champion Center. He encouraged Ms. Wannamaker to provide input to the Transportation Commission and City Council.

Councilmember Kasner encouraged her to organize neighbors to work with her and the City, including advocating for an updated traffic study of the area.

a) Staff presentation on relaunch of MyBellevue App

Ian Toms, Client Services Division Manager, announced the relaunch of the MyBellevue mobile app. He introduced Stephanie Dompier, who administers the app on behalf of the project committee. The app was created in 2013 and allows the public to report concerns and requests to the City. The new app provides an auto-translate function for a number of languages to help serve the diverse population of Bellevue. The app provides City news and information on events, allows citizens to sign up for a number of alerts, and enables access to City social media. Mr. Toms said the app has a built-in map feature to identify a specific area when a citizen is reporting a problem or issue, and photos may be attached as well.

Responding to Councilmember Kasner, Mr. Toms confirmed that a citizen may choose to submit a request or report publicly or to submit a request or report only to be viewed by the appropriate City staff. He said Code enforcement reports are always confidential.

Mr. Toms described additional features of the app, including the different colors used to indicate the status of a request or report. Commonly reported issues include Code violations, traffic concerns, parking, traffic signal problems, street maintenance, and tree maintenance.

Responding to Mr. Kasner, Mr. Toms said all items submitted to the City may be accessed through the City's Open Data internet portal, which is also available on the MyBellevue app. Mr. Toms said it is possible to filter and sort the data a number of ways, and to print reports. If there is an area of interest within the EBCC jurisdiction, staff could run a specialized report.

Chair Capron said he reported a pothole one day and City workers responded within 33 minutes to fix the problem.

Responding to Councilmember Hughes, Mr. Toms said a staff directory is not currently available on the app. However, the City is redesigning its web site, which will enable access to the directory on mobile devices in the future. Mr. Hughes said it would be helpful, in the City's internet calendar, to post staff contacts related to Board and Commission meetings.

Mr. Toms described how the MyBellevue portal is also located on the City's web page to make it convenient to use the report/request feature and other elements. Councilmember Hummer said she has had timely responses to her requests and reports of problems through the app.

Mr. Toms distributed brochures and cards with information on using the MyBellevue app.

5. REPORTS OF CITY COUNCIL, BOARDS AND COMMISSIONS

(a) Community Council Business and New Initiatives

Councilmember Hummer said she attended a meeting at Bellevue College regarding the State Environmental Policy Act (SEPA) review of the college's student housing plan. Responding to residents' previously expressed concerns about parking, the project now includes an additional small parking lot in the neighborhood. Ms. Hummer met with a City transportation staff person in advance to be able to share information with attendees at the Bellevue College meeting.

Ms. Hummer said she and Chair Capron participated in a tour of the East Bellevue area and projects.

Councilmember Kasner said he attended the grand opening of the Overlake Hospital clinic at Lake Hills Village. He participated in a walking tour of Downtown Bellevue. He would like to see tours of East Bellevue regarding the history of the neighborhood. He attended the Eastside Transportation Alliance meeting, which included a discussion about I-405 toll lanes. Mr. Kasner said the grand opening of the new Odle Middle School is September 8, which is also the date for the next Lake Hills Neighborhood Association meeting. For the latter, Mayor Stokes and City Councilmember Wallace will debate the Sound Transit 3 (ST3) November ballot measure.

Councilmember Kasner noted the memo in the desk packet regarding the Kelsey Creek mitigation funds related to the redevelopment of the Kelsey Creek Center. At that time, the developers contributed \$582,000 over five years to remove invasive vegetation and to provide other wetland mitigation and maintenance. Additional work has been completed since that time through the City Parks Department's partnering with EarthCorp.

Councilmember Gooding said many invasive blackberries were removed along Larsen Lake, and dead trees were placed along the perimeter to prevent the blackberry plants from reestablishing. He said speed humps have been installed at multiple locations in East Bellevue.

Councilmember Hughes said he submitted photos to the City of the Great Horned owl nesting area behind the Mormon Temple and Chaplin's car dealership. He said Chaplin's has plans to expand its facility. Mr. Hughes said he shared his concerns with City staff, who indicated they would speak to the developer about the issue.

Mr. Hughes expressed interest in an update on the single-family residence room rental ordinance. He is aware of houses with seven to eight tenants. Others present at the meeting suggested he submit a complaint or inquiry to the City. Responding to the Council, Chair Capron said the EBCC could request an update from staff on that issue and on Airbnb locations. Mr. Capron said staff provided information during a previous update about the number of complaints and how they have been handled.

Councilmember Kasner said City staff previously reported that three non-compliant cases were being prepared for litigation. He requested an update on those cases.

Chair Capron said the Highland Village matter was resolved recently when the King County Housing Authority bought the property from the developer who had initiated eviction of the residents to redevelop the site. The purchase price was \$20 million and the project will preserve 76 units of affordable housing. Noting the level of disrepair at the apartment complex, Mr. Capron opined that King County overpaid for the building. He said many of the apartments are occupied by a high number of individuals, which he believes King County will not allow to continue. He believes that many of the residents will not be there over the long term. He said the Housing Authority is obligated to repair and upgrade the housing units.

Councilmember Kasner said there were concerns about children being displaced early in the school year. He expressed support for the resolution of that housing crisis, even if families do not stay for more than two or three years.

Councilmember Capron said the Lake Hills Neighborhood Association does a good job of organizing and informing residents. However, he observed that neighbors might not understand that the LHNA does not formally represent residents' interests to the City. He encouraged LHNA leaders and residents to take their concerns directly to the City Council.

Councilmember Hughes said he has heard comments from residents who are pleased to see that the LHNA is increasing its visibility and attracting more neighbors to the meetings. He opined that the role is educating the public, not necessarily advocating for specific issues.

Responding to Councilmember Hummer, Charmaine Arredondo, Assistant Director for the City Clerk's Office, said that past issues of *It's Your City* are available on the City's web site. The major redesign of the City's web site is anticipated to be completed in November. Chair Capron said it would be helpful in the future to link the newspaper's issues relevant to East Bellevue from the EBCC's page.

Ms. Hummer questioned whether Chair Capron's synopsis of the Puget Sound Energy land use issues could be added to the EBCC page. Ms. Arredondo said information is provided in one section of the City's web site. However, the City Council web page does not provide links to that information, and the EBCC's page will likely be handled in the same manner.

Ms. Hummer would like more signs to publicize the EBCC meetings. Ms. Arredondo said she will pursue the issue with other city staff.

Councilmember Kasner questioned whether a formal presentation of the EBCC budget, including performance measures, is planned. Ms. Arredondo said the annual budget is approximately \$4,000. Monies related to litigation expenses during the past year were provided by a separate City fund. Mr. Kasner said that, in the past, staff distributed a 2-3 page summary of the EBCC budget. He believes there were 7-8 performance measures at one point, including the number of meeting attendees.

Mr. Kasner requested the following future agenda topics: 1) traffic and intersection concurrency data for East Bellevue, 2) Spiritwood Room Rental Code Enforcement, and 3) EBCC budget. Ms. Arredondo said she would email the budget proposal to the EBCC.

Ms. Hummer would like periodic updates on Parks and Utilities projects in East Bellevue. Chair Capron concurred with the request for updates on Parks improvement projects. However, he observed it is not reasonable to request updates on all maintenance activities.

Ms. Arredondo said she asked Development Services staff to begin providing a report of permittable items within the EBCC jurisdiction, whether or not the EBCC has authority over the permit decisions. She will speak with Parks and Utilities staff to determine what type of information might be available as well.

6. APPROVAL OF AGENDA

Councilmember Kasner moved to approve the agenda. Councilmember Hughes seconded the motion, which carried unanimously.

7. DEPARTMENT REPORTS

- (a) Memo re: 148th Avenue SE Traffic Signal Upgrade

Chair Capron referred the Council to the memo regarding the 148th Avenue SE traffic signal upgrade. He said he spoke with the City transportation project engineer to express concerns regarding impacts to his business and other surrounding properties. Mr. Capron would like to see

more work hours to expedite project completion. He said the project provides new traffic signals, new ADA curb ramps, and storm drainage improvements.

Don Boettiger concurred that he has not seen workers on site since the initial week or so when the project started. Mr. Capron said he shared that observation with the project manager.

8. **PUBLIC/COURTESY HEARINGS:** None.

9. **RESOLUTIONS:** None.

10. **COMMITTEE REPORTS:** None.

11. **UNFINISHED BUSINESS:** None.

12. **NEW BUSINESS**

(a) Potential Future Agenda Items

- Eastgate Land Use Code Amendments
- Low Impact Development (LID) Principles
- Final Regulations on Marijuana Uses
- Critical Area Ordinance Amendment

Chair Capron reiterated Councilmember Kasner's interest in budget information. Mr. Capron said the EBCC could discuss potential performance measures in the future. Mr. Kasner said he would like to track the number of EBCC meeting attendees, as well as the number of other meetings and events attended by EBCC members. Ms. Arredondo said staff can track those items of interest. However, they would not necessarily be connected to the budget because EBCC funding is statutorily required. Ms. Arredondo said the two performance measures in the EBCC budget are electorate approval and the total number of regular and special meetings.

Chair Capron said he would like presentations by Code Enforcement staff every six months on the Spiritwood room rental ordinance. For now, given the recent staff presentation, he said a written update on the litigation cases would be appreciated.

Chair Capron reiterated the EBCC's interest in periodic updates on Parks improvement projects and in traffic concurrency information.

Ms. Arredondo anticipates an update on the Eastgate LUCA project in November, and on the Low Impact Development principles and regulations in December. An update on the Critical Areas Ordinance is anticipated for November as well.

EBCC members expressed an interest in traffic counts on 148th Avenue SE. Mr. Kasner requested information on: 1) which intersections in the East Bellevue area are measured for concurrency, and 2) whether a traffic study has been conducted since 2010.

Ms. Wannamaker said she was told that the Transportation Commission will be addressing the Eastgate traffic issues and data.

Responding to Councilmember Kasner, Ms. Arredondo said issues discussed by the City Council in September could be placed on the EBCC's October agenda.

(b) Update on Puget Sound Energy Litigation

Chair Capron provided an update on the Puget Sound Energy (PSE) Lake Hills Transmission Line project to loop the two electrical substations down 148th Avenue. The case will be heard before a three-judge panel, and oral argument is anticipated in January. Mr. Capron said he plans to attend the oral arguments. He would like to see an alignment along 164th Avenue, Lake Hills Boulevard, and 156th Avenue. He would like the project to include sidewalk, landscaping, and buried lower voltage lines.

13. **CONTINUED COMMUNICATIONS:** None.

14. **EXECUTIVE SESSION:** None.

15. **APPROVAL OF MINUTES**

(a) Summary Regular Meeting Minutes of August 2, 2016

Councilmember Hummer moved to approve the minutes of the August 2, 2016 Regular Meeting, and Councilmember Gooding seconded the motion. The motion carried unanimously.

16. **ADJOURNMENT**

At 8:48 p.m., Chair Capron declared the meeting adjourned.

Charmaine Arredondo, CMC
Assistant Director
City Clerk's Office

/kaw

Mr. W.
...

...

...

...

...

...

...

...

...

...

...

...

...

...

...

