PLANNING COMMISSION AGENDA
April 22, 2015, 7:00 p.m.
Multipurpose Room/Council Chamber
Burien City Hall, 400 SW 152nd Street
Burien, Washington 98166

This meeting can be watched live on Burien Cable Channel 21 or streaming live and archived video on www.burienmedia.org

1. ROLL CALL

2. AGENDA CONFIRMATION

3. APPROVAL OF MINUTES
March 25, 2015

4. PUBLIC COMMENT
Public comment will be accepted on topics not scheduled for a public hearing.

5. OLD BUSINESS
A. None

6. NEW BUSINESS
A. Presentation on Amendments to BMC Chapter 19.40, Critical Areas

7. PLANNING COMMISSION COMMUNICATIONS

8. DIRECTOR’S REPORT

9. ADJOURNMENT

Future Agendas (Tentative)
May 13, 2015
- Public Hearing on Amendments to BMC Chapter 19.40, Critical Areas

May 27, 2015
- Recommendation to City Council regarding Amendments to BMC Chapter 19.40, Critical Areas

Planning Commissioners
Jim Clingan (Chair)
Joey Martinez (Vice Chair)
Curtis Olsen
Brooks Stanfield
Douglas Weber

Butch Henderson
Amy Rosenfield
City of Burien

BURIEN PLANNING COMMISSION
March 25, 2015
7:00 p.m.
Multipurpose Room/Council Chambers
MINUTES

To hear the Planning Commission’s full discussion of a specific topic or the complete meeting, the following resources are available:

- Watch the video-stream available on the City website, www.burienwa.gov
- Check out a DVD of the Council Meeting from the Burien Library
- Order a DVD of the meeting from the City Clerk, (206) 241-4647

CALL TO ORDER
Chair Jim Clingan called the March 25, 2015, meeting of the Burien Planning Commission to order at 7:03 p.m.

ROLL CALL
Present: Jim Clingan, Butch Henderson, Joey Martinez, Amy Rosenfield, Brooks Stanfield and Douglas Weber
Absent: Curtis Olsen
Administrative staff present: Chip Davis, Community Development director; David Johanson, senior planner

AGENDA CONFIRMATION
Direction/Action
Motion was made by Vice Chair Martinez, seconded by Commissioner Henderson, to approve the agenda for the March 25, 2015, meeting. Motion passed 6-0.

APPROVAL OF MINUTES
Direction/Action
Motion was made by Vice Chair Martinez, seconded by Commissioner Henderson, and passed 6-0 to approve the minutes of the March 11, 2015, meeting.

PUBLIC COMMENT
Anna Friel, 11232 26th Ave. S., asked the commissioners to add her rezone request to this year’s Comprehensive Plan amendment docket. She said she bought her property under the assumption it was zoned multi-family and when properties are rezoned people lose money and the county tax base is affected.

OLD BUSINESS
A. 2015 Comprehensive Plan Docket: Planning Commission Recommendation to City Council
David Johanson reviewed the commission’s discussion at its March 11th meeting about the proposed 2015 docket. He said the goal this evening is for the commission to determine its recommendation to the City Council regarding the docket.
Mr. Johanson responded to a question asked by Commissioner Henderson at the last meeting about the difference in the height requirement between the Office zone and the RM-48 or RM-24 zone. He said
the building height limit in the Office zone is 45 feet; currently apartment uses in the RM-48 zone can be anywhere from 60 to 75 feet tall, depending upon design elements, and in the RM-24 zone the height limit is 35 feet.

Commissioner Weber recommended that Item 29 on the proposed docket – “Update Downtown section in coordination with preparation of a City Center Plan (following TS completion in 2016)” – should be moved from a medium to a high priority. Mr. Johanson said staff intends to do that work in 2016, but put it on the 2015 docket in case there is an opportunity to get started this year.

Mr. Johanson said he believes the Puget Sound Regional Council will be providing comments on the recently updated Comprehensive Plan requiring adjustments to the plan, so he would like Item 10, currently a strike-out item, to remain on the docket as a high priority.

Referring to Item 3 on the docket and a comment received at the March 23 City Council meeting, Mr. Johanson noted that Map 2LU-2 will be updated from not only a boundary perspective but what the map represents, as well.

Vice Chair Martinez moved to recommend the City Council adopt Resolution No. 363 establishing the 2015 Comprehensive Plan amendment docket. Commissioner Henderson seconded the motion.

Commissioner Weber moved to amend the motion to modify the Comprehensive Plan amendment docket as presented in Resolution 363 by adding Item 10 back into the docket and making it a high priority and changing the priority of Item 29 from medium to high. Vice Chair Martinez seconded the motion. The amendment passed unanimously.

Chair Clingan moved to amend the amended motion by deleting Item 32; Commissioner Stanfield seconded. Chair Clingan said his reason for deleting Item 32 is that the filing fee wasn’t paid; accepting it at the Planning Commission level would set a precedent. He said he believes that the decision to accept an unpaid request rests at the City Council’s level. He said at this point he is not in favor or opposed to the proposed amendment, he is just concerned about the fee not being paid.

Commissioner Martinez asked what the fee is; Mr. Johanson responded that it is a flat fee of approximately $5,000 to cover estimated staff time involved, based on an hourly rate.

Commissioner Rosenfield asked why the fee hasn’t been paid, as opposed to times in the past when fee has been paid. Mr. Davis responded that the applicants requested that their application be placed on the docket for them by either the Planning Commission or the City Council at no cost to them; in that case, the application would be sponsored by the City.

Vice Chair Martinez asked what the applicant could do if the commission voted to recommend deletion of Item 32 from the docket. Mr. Davis responded that the City Council could accept the recommended docket in whole or in part and could choose to add Item 32 back in. Mr. Davis noted that the application met the docketing criteria, but detailed analysis of the merits of the request is not done until the docket has been established by the City Council.

Commissioner Rosenfield suggested that in the future there be a little bit of training about whether or not, or how much, the commission should take into consideration payment or non-payment of the filing fee when making a docket recommendation to the City Council.

Chair Clingan called for the vote on the motion to recommend deletion of Item 32 from the docket; the motion failed by a vote of 2-4.

Chair Clingan called for the vote on the motion to recommend adoption of the 2015 Comprehensive Plan docket as amended; the motion carried 6-0.

Mr. Davis noted that the commissioners’ recommended docket will go before the City Council for the first time on April 6th.

NEW BUSINESS
None
PLANNING COMMISSION COMMUNICATIONS

None.

DIRECTOR'S REPORT

Mr. Davis thanked the commissioners for attending the joint City Council / Planning Commission meeting on Monday night.

ADJOURNMENT

Direction/Action

Commissioner Stanfield moved for adjournment; Vice Chair Martinez seconded the motion. Motion carried 6-0. The meeting adjourned at 7:40 p.m.

APPROVED:__________________________________________

_____________________________________
Jim Clingan, chair  
Planning Commission
CITY OF BURIEN, WASHINGTON
MEMORANDUM

DATE: April 16, 2015

TO: Burien Planning Commission

FROM: David Johanson, AICP, Senior Planner

SUBJECT: Introduction and Presentation of Amendments to BMC Chapter 19.40, Critical Areas

PURPOSE
The purpose of this agenda item is for the Planning Commission to review a preliminary draft of the proposed amendments to BMC 19.40, Critical Areas.

Staff and our consultants will be presenting the proposed changes in detail at your meeting. We encourage all members to ask for clarifications and/or questions in preparation for the public hearing and subsequent recommendation to the City Council.

BACKGROUND
Over the past number of years the City has been working to update its comprehensive plan to comply with changes to the state Growth Management Act (GMA), regional and county plans. Updates to both the policy (comprehensive plan) and development regulations must be completed by June 2015. The City has completed the mandatory policy updates and has now transitioned to updating the applicable working development regulations, specifically the critical areas regulations found in BMC Chapter 19.40.

On March 23, 2015, the City Council and Planning Commission participated in a joint study session serving as an introduction to the topic of updating the critical areas section of the zoning code. The presentation by staff and our consultants provided an overview of the Growth Management Act requirements and best available science, as well as a summary of the gap analysis completed in 2012. You may find these presentations on the City web page created by staff specifically for this update process (www.burienwa.gov/index.aspx?nid=1062). The presentation in March concluded that generally our critical areas regulations are in alignment with the GMA requirements; however, updates to some sections will be necessary to comply with state law. It was proposed that the forthcoming efforts will be focused on only a few topical areas. There was no new or alternate direction given at the March 23, 2015, joint meeting.

Since that meeting staff has been working with our consultants to prepare draft amendments for your consideration. The amendments included in the attached drafts also address preliminary comments we received from the Department of Ecology. Attached you will find the first draft of the proposed amendments to the zoning code. (see Attachment 1)
DOCUMENT SUMMARY

Multiple documents have been prepared to assist in the update process and they are briefly described below.

1) BMC Chapter 19.40 – the document includes changes in standard track change style. In addition we have included comments so the reader can see the justification/rational for any given change. (see Attachment 1)

2) Critical Areas Ordinance, Summary of Changes – The proposed text amendments have been included in a matrix format and categorized by change type as described above. (see Attachment 2)

3) Wetland Buffer Width Requirements and Options Memo – A memo prepared to provide further detail regarding wetland buffer options. This will be a specific topic of discussion at your meeting. (see Attachment 3)

4) Critical Areas Ordinance Update, Addendum to BAS and Gap Analysis Reports – An addendum to update the BAS and Gap Analysis Reports completed in 2011 and 2012, respectively. (see Attachment 4)

CATEGORIZATION of AMENDMENTS

To aid in your deliberation process, the Summary of Changes (Attachment 2) document has been categorized into topical themes. The purpose of categorizing the topics is to make a clear distinction between those text changes that are more administrative in nature, such as reformatting, and those more substantive changes, including items such as changes to buffers based on best available science. Topical theme areas 1 (required/discussion) and 3 (content change/protective regulations) contain predominately substantive changes, while the others (2, 4 and 5) tend to be more administrative and ministerial in nature. The five themes are described as follows:

1) **Required Amendments (Discussion)** – These are amendments necessary to comply with the Growth Management Act and the associated best available science requirement. Options have been developed and we recommend that the Commission have extended discussions on these topics.

   The Wetland Buffers – A memo has been specifically prepared to outline options regarding the best method to apply best available science (see Attachment 3).

2) **Content Change (Administrative)** – Includes text changes involving code content applying to administrative and development regulations. Administrative-related text changes generally include formalizing current administrative practices such permitting processes and issuance of decisions.

3) **Content Change (Protective Regulations)** – Changes in text that alter protective regulations. Generally, the changes improve/enhance protections to critical areas through requirements such as including mitigation sequencing (similar to SMP), improving protective fencing and critical area notice sign requirements, and stream buffer widths.

4) **Document Organization Amendments** – These proposed amendments do not change text in the code but primarily reorganize the document. The objective of these amendments is to make the document more user friendly and to ensure all necessary sections are located in a logical order and in the proper location, or remove sections that are located elsewhere in the Burien Municipal Code. The draft document contains a decent amount of reorganizing; however, please be aware that much of the text will remain the same.
5) **Editorial Amendments** – Primarily these include amendments pertaining to formatting, wording clarity, internal code references and definitions.

**NEXT STEPS**

The following is a schedule of the upcoming meetings along with the agenda topics.

**May 13, 2015**

- Public Hearing on Amendments to BMC Chapter 19.40, Critical Areas
- Discussion regarding Amendments to BMC Chapter 19.40, Critical Areas

**May 27, 2015**

- Planning Commission Discussion and Recommendation regarding BMC Chapter 19.40, Critical Areas

**ACTION**

No action is required at your meeting; however, questions and dialog are strongly encouraged.

**Attachments:**

1) DRAFT - BMC Chapter 19.40, Critical Areas, includes definitions, April 16, 2015
2) DRAFT - Critical Areas Ordinance, Summary of Changes, April 16, 2015
3) Wetland Buffer Width Requirements and Options Memo, April 15, 2015
Chapter 19.40
Critical Areas

Purposes and General Administrative Provisions

19.40.010 User guide.
19.40.020 Purposes and goals.
19.40.030 Relationship to other regulations.
19.40.040 Applicability.
19.40.050 Protection of critical areas.
19.40.060 Best available science.
19.40.070 Exemptions and exceptions.
19.40.080 Reserved.

Critical Area Review

19.40.090 Critical area review.
19.40.100 Review criteria.

Critical Area Study

19.40.110 Critical area study – waiver.
19.40.120 Critical area study – requirements.
19.40.130 Critical area study – modifications to requirements.

Critical Area Determination

19.40.140 Determination.
19.40.150 Appeal of determination.

General Critical Area Development Standards

19.40.160 Construction requirementsNotice on Title.
19.40.170 Mitigation requirements maintenance and monitoring.
19.40.180 BondsVegetation management plan.
19.40.190 Vegetation management planGeneral development standards.
19.40.200 Critical area markers and signsConstruction requirements.
Notice on title Critical area markers and signs.

Permanent protection of critical areas and buffers.

General development standards Bonds

Frequently Flooded Areas

Flood hazard areas – Components
Frequently flooded areas – Designation.

Flood fringe – Development standards and permitted alterations
Frequently flooded areas – General Standards.


Geologically Hazardous Areas

Geologically hazardous areas – Designation.

FEMA floodway – Development standards and permitted alterations.

Flood hazard areas – Certification by engineer or surveyor.

Geologically hazardous areas – Development standards and permitted alterations.

Wetlands

Wetlands – Designation and Classification.

Wetlands – Performance Development Standards.

Wetlands – Permitted Alterations.

Wetlands – Additional Mitigation Requirements.

Streams

Streams – Designation and Classification.

Streams – Performance Development Standards.

Streams – Permitted Alterations.

Streams – Additional Mitigation Requirements.

Fish and Wildlife Habitat Conservation Areas
This chapter establishes regulations pertaining to the development within or adjacent to critical areas. Many areas of Burien have been or may become classified as critical areas by the City or other public agencies. The following critical areas are found in the City of Burien and regulated under this Chapter: [Ord. 376 § 1, 2003]

A. Frequently flooded areas (19.40.240);

B. Geologically hazardous areas (19.40.280), including:
   i. Erosion hazard areas;
   ii. Landslide hazard areas, and
   iii. Seismic hazard areas;

C. Wetlands (19.40.300);

D. Streams (19.40.340);

E. Fish and wildlife habitat conservation areas (19.40.380); and

F. Critical aquifer recharge areas (19.40.420). [Ord. 376 § 1, 2003]
1. The City finds that critical areas provide a variety of valuable and beneficial biological and physical functions that benefit the City and its residents, and/or may pose a threat to human safety or to public and private property. The beneficial functions and values of critical areas include, but are not limited to, water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, conveyance and attenuation of storm runoff, ground water recharge and discharge, wave attenuation, aesthetic value protection, and recreation. Hazards include landslides, flooding and excessive erosion.

2. This chapter is to be administered with flexibility and attention to site-specific characteristics. It is not the intent of this chapter to make a parcel of property unusable by denying its owner reasonable use of the property.

3. Purposes. The purposes of this chapter are to:

   A. Implement the goals, policies, guidelines and requirements of the Washington State Environmental Policy Act, Chapter 43.21C RCW, Growth Management Act, Chapter 36.70A RCW and the City of Burien comprehensive plan which call for protection of the natural environment and the public health, safety and welfare, and allowing for appropriate urban development within the region’s urban growth area.

   B. Designate, classify, and regulate the use of critical areas in accordance with the Growth Management Act and through the application of best available science, as determined according to WAC 365-195-900 through 365-195-925, as amended, and in consultation with state and federal agencies and other qualified professionals.

4. Goals. By regulating development and alteration of critical areas and their buffers, this chapter seeks to:

   A. Preserve and enhance the ecological value of critical areas to maintain the functional integrity of the natural environment.

   B. Protect public health, safety and welfare by minimizing adverse impacts and risks associated with development in critical areas.

   C. Preserve the quality of life in Burien.

   D. Minimize public and private expenditures to correct future misuses of critical areas.
E. Provide City officials with **sufficient information, direction and authority** to identify and if necessary, regulate development of **critical areas**; mitigate impacts on **critical areas** and enforce **critical area** regulations and permit conditions.

F. **Encourage flexibility and creativity** in the development of property containing or adjacent to **critical areas**, to meet the requirements and goals of this chapter while **preserving property rights**, and

G. **Educate** the community about the hazards, risks, functions, and value of Burien’s **critical areas** and the responsibility of the City to protect and preserve the natural environment for future generations. [Ord. 376 § 1, 2003]

### 19.40.030 Relationship to other regulations.

1. Greater restrictions. When any provision of this code conflicts with this chapter or when the provisions of this chapter are in conflict, the provision that provides more protection to **critical areas** shall apply, unless specifically provided otherwise in this chapter or unless such provision conflicts with federal or state laws or regulations.

2. Multiple buffers. When more than one **critical area** affects a site and multiple **buffers** are required, all required **buffers** must be provided, unless specifically provided otherwise in this chapter. Where **buffers** overlap, the most restrictive **buffer** applies.

3. Compliance with the provisions of this chapter does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required. The **applicant** is responsible for complying with these requirements, apart from the process established in this chapter. [Ord. 376 § 1, 2003]

### 19.40.040 Applicability.

1. Compliance required. **Alteration**, development, **use**, and/or activities proposed within or adjacent to **critical areas** and their required **buffers** shall comply with the provisions of this chapter. Critical areas and their required **buffers** shall not be altered except as allowed by this chapter.

2. Identification and classification of critical areas. The **Director** shall identify and classify **critical areas** as follows:

   A. **Critical Areas Map**. The locations of many **critical areas** in Burien are displayed on the City of Burien’s Critical Areas Map, which is hereby adopted by reference. This map is used to alert the
public of the potential location of critical areas in Burien. As new environmental information related to critical areas becomes available, the Director is hereby designated to periodically make such changes as necessary to the Critical Areas Map.

B. Actual site conditions. Regardless of whether a critical area is shown on the critical areas map, the actual presence or absence of the features defined in this code as critical areas shall govern. The Director may require the applicant to submit technical information to indicate whether critical areas actually exist on or adjacent to the applicant’s site, based on the definitions of critical areas in this code.

3. Adjacency. For the purposes of this Chapter, land is “adjacent” to a critical area if it is:

A. Land that contains the required critical area buffer width and building setback;

B. Land within one hundred (100) feet upland from a stream, wetland or lake;

C. Land within three hundred (300) feet of a wetland;

D. Land within \(800 - 660\) feet of a bald eagle nest;

E. Land within two hundred (200) feet from of a designated critical aquifer recharge area, or

F. Land within the floodway or floodplain. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

19.40.050 Protection of critical areas.

Any action taken pursuant to this Chapter shall result in equivalent or greater functions and value of the critical areas associated with the proposed action, as determined by the best available science. All actions and developments shall be designed and constructed in accordance with mitigation sequencing (BMC 19.40.170) to avoid, minimize and restore all adverse impacts. Applicants must first demonstrate an inability to avoid or reduce impacts, before restoration and compensation of impacts will be allowed. No activity or use shall be allowed that results in a net loss of the functions or value of critical areas. [Ord. 376 § 1, 2003]

19.40.060 Best available science.

1. Criteria for best available science. The best available science is that scientific information applicable to the critical area prepared by local, state or federal natural resource agencies, a qualified scientific professional or team of qualified scientific professionals, that is consistent with criteria established in WAC 365-195-900 through WAC 365-195-925, as amended.
2. Protection for functions and value and anadromous fish. Critical area studies and decisions to alter critical areas shall rely on the best available science to protect the functions and value of critical areas and must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish and their habitat, such as salmon and bull trout. [Ord. 376 § 1, 2003]

3. Absence of valid scientific information. Where there is an absence of valid scientific information or incomplete scientific information relating to a critical area leading to uncertainty about the risk to critical area function of permitting an alteration of or impact to the critical area, the Director shall take a “precautionary approach,” that strictly limits development and land use activities until the uncertainty is sufficiently resolved.

19.40.070 Exemptions and exceptions.

1. Exemption request and review process. Exemptions shall be reviewed in conjunction with an associated approval such as a land use decision or the issuance of a construction permit. Absent associated permits or approvals, the proponent of the activity may submit a written request for exemption to the Director that describes the activity and states the exemption in this Section that applies. The request shall be processed as an administrative decision. If the exemption is approved, it shall be placed on file with the department. If the exemption is denied, the proponent may continue in the review process and shall be subject to the requirements of this Chapter. The Director may add conditions for exemption to ensure the level of activity remains consistent with the provisions of this Chapter.

2. Avoid or limit impacts. All exempt activities shall use city-approved best management practices and other reasonable methods to reasonably minimize impact to critical areas and their required buffers. To be exempt from this Chapter does not give permission to degrade a critical area or ignore risk from natural hazards. The Director may require submittal of a critical area study pursuant to BMC 19.40.110 through BMC 19.40.130 if needed to assess public safety risks associated with the proposal. Restoration of non-exempted alterations or damage to a critical area or its buffer may be required.

3. Exempt activities. The following shall be exempt from the provisions of this Chapter; however, the activities listed below may not be exempted from other city, state or federal permit requirements or regulations:

A. Emergencies. Alterations in response to emergencies which pose an immediate threat to the public health, safety and welfare or which pose an imminent risk of damage to property. Any alteration undertaken as an emergency shall be reported within one (1) business day to the Department of Community Development. The Director shall confirm that an emergency exists and determine what, if any, mitigation and conditions shall be required to protect the health,
safety, welfare and environment and to repair any damage to the critical area and its required buffers. Emergency work must be approved by the City. If the Director determines that the action taken, or any part of the action taken, was beyond the scope of an allowed emergency action, then enforcement provisions of Chapter 1.15 BMC shall apply.

B. Normal and routine operation, maintenance, remodeling, repair and revegetation of existing public facilities, parks and open spaces as long as any such activities do not involve the expansion of improvements into previously unimproved areas.

C. Normal and routine operation, maintenance, remodeling, replacement and repair of existing public streets and city-approved private roads. Such activities shall not involve the expansion of roadways or related improvements into previously unimproved portions of rights-of-way or vehicular access easements or tracts.

D. Except in streams and wetlands or their buffers, normal and routine operation, maintenance, remodeling, and repair of existing public and quasi-public utilities (including water, sanitary sewer, storm drainage, electric, natural gas, cable communications, telephone utility and related activities), including:

i. Relocation of electric facilities, lines, equipment or appurtenances, not including substations, with an associated voltage of 55,000 volts or less, only when required by a local governmental agency which approves the new location of the facilities;

ii. Replacement, modification, installation or construction in an improved city road right-of-way or city authorized private road of all electric facilities, lines, equipment or appurtenances, not including substations, with an associated voltage of 55,000 volts or less;

iii. Relocation of public sewer local collection, public water local distribution, natural gas, cable communication or telephone facilities, lines, pipes, mains, equipment or appurtenances, only when required by a local governmental agency which approves the new location of the facilities; and

iv. Replacement, modification, installation or construction of public sewer local collection, public water local distribution, natural gas, cable communication or telephone facilities,
lines, pipes, mains, equipment or appurtenances when such facilities are located within an improved public right-of-way or city authorized private roadway;

E. Normal and routine maintenance, repair, renovation or structural alteration of public and private structures not listed in this section, in existence on January 14, 2003.

F. New accessory structures and additions to structures that do not exceed a cumulative impervious surface addition after January 14, 2003 of 1,000 square feet or 7% of lot area, whichever is greater; provided that:

i. Construction is not within a stream, wetland or lake or in their required buffers; and

ii. The proposal does not increase non-conformance to critical area standards related to streams, wetlands or lakes.

G. Public and private pedestrian trails, except in streams, wetlands, fish and wildlife habitat conservation areas, or their buffers, subject to the following:

i. Critical area and/or buffer widths shall be increased, where possible, equal to the width of the trail corridor, including disturbed areas; and

ii. Trails proposed to be located in landslide or erosion hazard areas shall be constructed in a manner that does not increase the risk of landslide or erosion and in accordance with an approved geotechnical report;

H. Forest practices. Forest practices regulated and conducted in accordance with the provisions of Chapter 76.08 RCW and forest practices regulations, Title 222 WAC, and those that are exempt from city's jurisdiction, provided that forest practice conversions are not exempt.

I. Minor site investigative work. Work necessary for permit submittals, such as surveys, soil logs, percolation tests, and other related activities, where such activities do not require construction of new roads, significant amounts of excavation or removal of significant trees. In every case, impacts to the critical area shall be minimized and disturbed areas shall be immediately restored.

J. Slope exemptions: The following slopes are exempt, unless the slope is part of another critical area or required buffer:
JL. Non-regulated activities in the critical aquifer recharge areas.

42. Public agency and utility exception.

A. If the application of this chapter would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for a Public Agency and Utility Exception. All requirements of this chapter apply, except as specifically waived as part of the decision on the exception.

B. Exception request and review process. An application for a public agency and utility exception shall be made to the city and shall include a critical area study, including mitigation plan, if necessary; other related project documents, and any applicable environmental documents prepared pursuant to the State Environmental Policy Act (Chapter 43.21C RCW). The application shall be processed using the Type 1 review process pursuant to BMC 19.65.

C. Public agency and utility exception review criteria. The Director’s decision shall be based on the following criteria:

   i. There is no other practical or feasible alternative to the proposed development with less impact on the critical area; and
ii. The proposal minimizes the impact on critical areas; and

iii. The application of this chapter would unreasonably restrict the ability to provide utility services to the public, and

iv. The proposal meets the decision criteria in BMC 19.40.100.

54. Reasonable use exception.

A. If the application of this chapter would deny all reasonable use of the property, the applicant may apply for a Reasonable Use Exception. All requirements of this chapter apply, except as specifically waived as part of the decision on the exception.

B. Limitations. Reasonable use exceptions are not authorized for changes in density limitations, permitted uses or activities in critical areas or their required buffers, expanding a use otherwise prohibited, and shall not be used to achieve the maximum density allowed without the existence of critical areas.

C. Exception request and review process. An application for a reasonable use exception shall be made to the city and shall include a critical area study, including mitigation plan, if necessary; and any other related project documents, such as special studies, and environmental documents prepared pursuant to the State Environmental Policy Act (Chapter 43.21C RCW). The application shall be processed using the Type 1 review process pursuant to BMC 19.65.

D. Reasonable use exception review criteria. The Director’s decision shall be based on the following criteria:

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

ii. There is no other reasonable use with less impact on the critical area;

iii. The proposed development does not pose an unreasonable threat to the public health, safety or welfare on or off the development proposal site and is consistent with the general purposes of this chapter and the public interest; and

iv. Any alterations permitted to the critical area shall be the minimum necessary to allow for reasonable use of the property.
v. The proposal meets the decision criteria in BMC 19.40.100. [Ord. 560 § 1 (Exh. A), 2012; Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

19.40.080 Reserved. [Ord. 394 § 1, 2003]

CRITICAL AREA REVIEW

19.40.090 Critical area review.

1. Required review. Alteration, construction, development or activity within a critical area (except a seismic hazard) or its required buffer must be approved through a critical area review, unless exempted pursuant to BMC 19.40.070 or BMC 19.40.320. Prior to submitting an application for critical area review, the applicant shall schedule and attend a City of Burien pre-application meeting to obtain information relating to overall project feasibility, scope of critical area studies, standards and possible mitigation required for alterations on or near critical areas.

2. As part of its review of a critical area review, the City shall:

   A. Verify the information submitted by the applicant;

   B. Determine whether any critical area exists on the property and confirm its nature and type;

   C. Evaluate the critical area study;

   D. Determine whether the development proposal conforms to the purposes and performance standards-provisions of this Chapter, including the criteria in BMC 19.40.100;

   E. Determine if the proposed project adequately addresses impacts on the functions or value of critical areas and whether such impacts are necessary and unavoidable;

   F. Determine if the mitigation and monitoring plans and bonding measures proposed by the applicant are sufficient to protect the functions and value of the critical area, and public health, safety and welfare concerns, consistent with the goals, purposes, objectives and requirements of this chapter.

3. Submittal requirements. Applications for critical area review shall be submitted with all of the following information:

   [Comment [TB15]: The term “provisions” covers all regulatory measures in this Chapter. For the purpose of critical area review criteria, this broader term is appropriate.]
A. A written critical area study (BMC 19.40.120) that adequately evaluates the proposal, all probable impacts and risks related to the critical area and recommends appropriate mitigation measures to comply with the provisions of this chapter.

B. In addition to indicating the location of the proposal, the site and development plans shall include:

   i. The accurate location of those critical areas and their required buffers that could be affected by the proposal.

   ii. The approximate location of all mapped or identifiable critical areas and their buffers that are within the distances identified in BMC 19.40.040.3.

   iii. Accurate topography drawn to scale with a minimum 2-foot contour interval.

C. Applicable filing fees.

D. If necessary to insure compliance with this chapter, the Director may require additional information from the applicant, separate from the critical area study. [Ord. 376 § 1, 2003]

19.40.100 Review criteria.

1. Any alteration to a critical area or its required buffer, unless otherwise provided for in this Chapter, shall be reviewed and approved, approved with conditions, or denied based on the proposal’s ability to comply with all of the following criteria:

   A. The proposal limits the impact on critical areas;

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

   C. The proposal is consistent with the general purposes of this Chapter and the public interest;

   D. Any alterations permitted to the critical area or its required buffer are mitigated in accordance with the mitigation requirements of this chapter (BMC 19.40.170) and the critical area study (BMC 19.40.120); and

   E. The proposal protects the critical area functions and value consistent with the best available science.

Comment [TB16]: Internal reference for usability
2. The city may condition the proposed activity as necessary to mitigate impacts to critical areas and to conform to the standards required by this Chapter. [Ord. 376 § 1, 2003]

CRITICAL AREA STUDY

19.40.110 Critical area study – waiver.

The Director shall waive the requirement for a critical area study if:

1. There will be no alteration of the critical area or buffer; and

2. The development proposal will not impact the critical area in a manner contrary to the purpose, intent, and requirements of this Chapter; and

3. The proposal is consistent with other City of Burien applicable regulations and standards. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

19.40.120 Critical area study requirements.

1. General. The critical area study shall be funded by the applicant and shall be prepared in accordance with procedures established by the Director. If appropriate professional expertise does not exist on City staff, the Director may retain experts at the applicant’s expense to review critical area studies submitted by the applicant. Expense to the applicant shall be determined at the pre-application meeting.

2. Prepared by qualified professional. A required critical area study shall be prepared by a person with experience and training in the scientific discipline appropriate for the relevant critical area subject in accordance with WAC 365-195-905(4). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology or related field, and two years of related work experience. The City maintains a roster of qualified professionals.

   A. A qualified professional for wetlands must be a Professional Wetland Scientist with at least two years of full-time work experience as a wetlands professional, including delineating wetlands using the state or federal manuals; preparing wetland reports; conducting function assessments; and developing and implementing mitigation plans.

   B. A qualified professional for Fish and Wildlife Habitat Conservation Areas or wetlands must have a degree in biology and professional experience related to the subject species.

Comment [TB17]: Applicants will know to approach City for roster.

Comment [TB18]: Per Ecology comment from Donna Bunten, 3/10/15
A qualified professional for a geological hazard must be a professional engineer or geologist, licensed in the state of Washington.

A qualified professional for critical aquifer recharge areas means a hydrogeologist, geologist, engineer, or other scientist with experience in preparing hydrogeologic assessments.

3. Incorporating best available science. The critical area study shall use scientifically valid methods and studies in the analysis of critical area data and field reconnaissance and reference the source of science used. The critical area study shall evaluate the proposal and all probable impacts to critical areas in accordance with the provisions of this Chapter.

4. Minimum study contents. The critical area study shall contain, at a minimum, the following information, as applicable:

   A. The name and contact information of the applicant, a description of the proposal, and identification of the permit requested.

   B. A copy of the site plan for the development proposal showing:

      i. Identified critical areas, buffers, and the development proposal with dimensions;

      ii. Limits of any areas to be cleared; and

      iii. A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations;

   C. The dates, names, and qualifications of the persons preparing the study and documentation of any fieldwork performed on the site;

   D. Identification and characterization of all critical areas, water bodies, and buffers adjacent to the proposed project area or potentially impacted by the proposed project;

   E. A statement specifying the accuracy of the study, and assumptions used in the study;

   F. Determination of the degree of hazard and risk from the proposal both on the site and on surrounding properties;
G. An assessment of the probable cumulative impacts to critical areas, their buffers and other properties resulting from the proposal;

H. A description of reasonable efforts made to apply mitigation sequencing (BMC 19.40.170(2)) to avoid, minimize, and mitigate impacts to critical areas;

I. When impacts are unavoidable, a mitigation plan (BMC 19.40.170(3)) Plans for adequate mitigation to offset any impacts;

J. Recommendations for maintenance, short-term and long-term monitoring, contingency plans and bonding measures; and

K. Any other technical information required by the Director to assist in determining compliance with this Chapter. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

19.40.130 Critical area study – modifications to requirements.

1. Limitations to study area. The Director may limit the required geographic area of the critical area study as appropriate if:

   A. The applicant, with assistance from the city, cannot obtain permission to access properties adjacent to the project area; or

   B. The proposed activity will affect only a limited part of the site.

2. Modifications to required contents of study. The Director may allow modifications to the required contents of the study where, in the judgment of a qualified professional, more or less information is required to adequately address the potential critical area impacts and required mitigation. [Ord. 376 § 1, 2003]

CRITICAL AREA DETERMINATION

19.40.140 Determination.

1. General. The Director shall issue a written critical area determination as to whether the proposed activity and mitigation, if any, is consistent with the provisions of this Chapter. The Director’s determination shall be based on the criteria of BMC 19.40.100. The Director may require increased buffer widths, increased setbacks or other protective measures not required in this chapter if required in the critical area study.
2. Review process and timing. The determination for proposed development on an undeveloped lot in a landslide hazard area shall be processed using the Type I review process and timing described in BMC 19.65. Determinations for all other types of proposals shall be processed as an administrative decision. The City’s goal is to issue the administrative decision within 60 days of submittal of a complete application containing the materials required in BMC 19.40.090.3.

3. Favorable determination. If the Director determines that the proposed activity meets the criteria in BMC 19.40.100 and complies with the applicable provisions of this Chapter, the Director shall prepare a written notice of determination and identify any required conditions of approval. If a Type I review is required, the critical area notice of determination shall be combined with the Type I review notice of decision. The notice of determination and conditions of approval shall be included in the project file and be considered in future phases of the city’s review of the proposed activity in accordance with any other applicable codes or regulations.

Any conditions of approval included in a notice of determination shall be attached to the underlying permit or approval. Any subsequent changes to the conditions of approval shall void the previous determination pending re-review of the proposal and conditions of approval by the Director.

A favorable determination should not be construed as endorsement or approval of any underlying permit or approval.

4. Unfavorable determination. If the Director determines that a proposed activity does not adequately mitigate its impacts on the critical areas and/or does not comply with the criteria in BMC 19.40.100 and the provisions of this Chapter, the Director shall prepare written notice of the determination that includes findings of noncompliance. If a Type I review is required, the critical area notice of determination shall be combined with the Type I review notice of decision.

No proposed activity or permit shall be approved or issued if it is determined that the proposed activity does not adequately mitigate its impacts on the critical areas and/or does not comply with the provisions of this Chapter.

[Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

19.40.150 Appeal of determination.

A critical area determination issued using the Type 1 review process may be appealed using the appeal procedures for a Type 1 decision (BMC 19.65). A critical area determination issued as an administrative decision may be appealed according to, and as part of the appeal procedure for the underlying permit or approval involved. [Ord. 376 § 1, 2003]

1. The owner of any property containing critical areas or buffers on which a critical area review application is submitted, except a public right-of-way, shall record a notice approved by the Director with the King County Records and Elections Division. The notice shall inform the public of the presence of critical areas or buffers on the site, of the application of this chapter to the property, of the requirement for engineered structure design (if applicable), and that limitations on actions in or affecting such critical areas or buffers may exist. The notice shall run with the land.

2. The applicant shall submit proof that the notice has been filed for public record before the Director shall approve any permits or alteration for the site, in the case of subdivisions, short subdivisions and binding site plans, at or before recording. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

19.40.170 Mitigation, maintenance, and monitoring requirements.

1. The Director may require the applicant to provide, at the applicant’s expense, mitigation, maintenance and monitoring measures to protect critical areas and buffers. A written report describing the results of any mitigation, maintenance or monitoring measures shall be submitted to the Director for review and further action, if needed. The applicant shall avoid all impacts that degrade the functions and values of critical areas and buffers. Unless otherwise provided in this Chapter, if impacts to critical areas or buffers are unavoidable, all adverse impacts resulting from the proposed alteration, construction, development, or activity shall be mitigated, at the applicant’s expense, using the best available science in accordance with an approved critical area study.

2. Where monitoring reveals a significant deviation from predicted impacts or a failure of mitigation or maintenance measures, the applicant shall be responsible for appropriate corrective action which, when approved, shall be subject to further monitoring. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003] Mitigation sequencing. Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas. When an alteration to a critical areas is proposed, applicants shall follow the sequential order of preference below. Mitigation for individual actions may include a combination of these measures:

A. Avoiding the impact altogether by not taking a certain action or parts of an action;
B. Minimizing the impact by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;

C. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

D. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

E. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or

F. Monitoring the impact area or the required mitigation area and taking remedial action when necessary.

3. When mitigation is required, the applicant shall submit for approval by the City a mitigation plan as part of the critical areas study (BMC 19.40.120). The mitigation plan:

A. shall be prepared by a qualified professional;

B. shall demonstrate that the proposed mitigation will adequately offset all adverse impacts to critical areas that may result from the proposed alteration, construction, development, or activity, and

C. shall include a monitoring, maintenance, and contingency plan, including measurable performance standards that evaluate whether or not the mitigation project has fulfilled the requirements of this Chapter.

4. Mitigation shall not be implemented until after the City approval of a critical area study that includes a mitigation plan, and mitigation shall be in accordance with the provisions of the approved critical areas study.

5. Impacts to significant trees within critical areas shall be mitigated according to BMC 19.25 Tree Retention and Landscaping.

19.40.180 Vegetation management plan.
1. For all proposals where preservation of existing vegetation is required by this chapter, a vegetation management plan shall be submitted and approved prior to issuance of the permit or other request for permission to proceed with an alteration.

2. The vegetation management plan shall incorporate all City requirements relating to protection, maintenance and planting of vegetation and shall identify the proposed clearing limits for the project and any areas where vegetation in a critical area or its buffer is proposed to be disturbed.

3. Clearing limits as shown on the plan shall be marked in the field in a prominent and durable manner. Proposed methods of field marking shall be reviewed and approved by the Director prior to any site alteration. Field marking shall remain in place until the certificate of occupancy or final project approval is granted.

4. The vegetation management plan may be incorporated into a temporary erosion and sediment control plan or landscaping plan where either of these plans is required by other laws or regulations.

5. Vegetation within critical areas and their buffers may be trimmed, pruned or removed only upon prior written approval by the Director. A report by a qualified professional or certified arborist may be required to address alternatives, to ensure that the proposed activity will not be detrimental to surrounding properties and to the functions and values of the associated critical area.

6. Where alteration of the critical area or buffer has occurred during construction, revegetation with native vegetation will be required unless the Director approves a substitute vegetation with the same or better functions than the original buffer area. If the alteration was unauthorized by the City, the Director may also impose penalties pursuant to Chapter 1.15 BMC. [Ord. 560 § 1 (Exh. A), 2012; Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

19.40.230 General development standards.

1. Clustering. Clustering of structures in areas of a site that are not located within critical areas or their buffers is encouraged. For purposes of this section, “clustering” means a form of development that allows a reduction in lot area, provided that the number of proposed dwelling units does not exceed the total number of dwelling units that could be allowed if clustering was not used. For the purposes of this section, the limitation on lot averaging in BMC 19.15.005.2 and 19.15.010.4 does not apply.

2. Building setback. Except in critical aquifer recharge areas and seismic hazard areas, buildings shall be setback 15 feet from the edges of all critical area buffers or from the edges of all other critical areas, if no buffers
The following may be allowed in the building setback area:

A. Landscaping;
B. Uncovered decks;
C. Building overhangs which do not extend more than eighteen (18) inches into the area;
D. Pervious unroofed stairways and steps; and
E. Impervious ground surfaces, such as driveways and patios, provided that such improvements may be subject to water quality regulations as adopted in the City’s stormwater management regulations (BMC 13.10).

19.40.160 Construction requirements.

1. The Director may require that the applicant retain the expert(s) that prepared the critical area study, or another expert approved by the City, to monitor construction for compliance with the professional’s recommendations and related requirements imposed by the City. The Director may require that the expert submit field reports to the City on a regular basis during construction, a final report and following construction if needed to ensure compliance with this code and the recommendations of the critical area study.

2. If required by the critical area study, City of Burien Construction Code, or King County Surface Water Design Manual, the applicant shall submit a temporary erosion and sedimentation control plan and/or a permanent and complete stormwater control plan for the proposal. The plan shall include but not be limited to the following items as appropriate: curbs, gutters, inlets, catch basins, tightlines, retention and detention facilities, stabilized outfalls, and subterranean water. Maximum flows of runoff from the property shall not be increased by the construction activity or resultant improvements. The Director shall provide specific requirements for such plans.

3. If required by the critical area study, City of Burien Construction Code, or King County Surface Water Design Manual, the Director may restrict construction to a construction season. If a construction season is established, it may be subsequently modified as necessary by the Director.

4. If required by the critical area study or City of Burien Construction Code, the Director may require the use of alternate foundation systems that limit the amount of excavation, for example, pilings, caissons, footings with grade beams, or other appropriate systems. The Director may limit or prohibit the use of conventional spread
footings at **building** perimeters. The **Director** may require excavations to be dug by hand or using hand-held machinery.

5. All subdivisions, short subdivisions or binding site plans shall comply with the following additional requirements:

   A. Except as provided in this section, existing vegetation shall be retained on all **lots** until building permits are approved for development on individual **lots**; and

   B. If any vegetation on the **lots** is damaged or removed during construction of the subdivision infrastructure, the **applicant** shall be required to submit a **restoration** plan to the **Director** for review and approval. Following approval, the **applicant** shall be required to implement the plan;

6. **Indemnification.** An indemnification or hold harmless agreement shall be required for all clearing, **grading** or construction on **lots** containing **critical areas**, except for non-regulated **uses** in **critical aquifer recharge areas**. The form of the agreement shall be approved by the City Attorney and executed prior to issuance of any permits for development of the **site**. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

19.40.200 Critical area markers and signs.

The section below does not pertain to **critical aquifer recharge areas** or **seismic hazard areas**.

1. **Boundary delineation and construction fencing.** The outer edge of any required **critical area buffer**, tract or protective easement shall be clearly staked using permanent survey markers installed by a licensed surveyor. The survey markers and a temporary construction **fence** shall be installed at **applicant** expense and accepted by the **Director** prior to issuance of any permits for **site** clearing or construction, or, if permits are not required, prior to any **alteration** of the **site**. The temporary construction **fence** shall be a sturdy wire, chain link or wood **fence** between 3 feet and 6 feet high as required by the **Director**. The **Director** may require signs to be installed on the **fence** indicating that no disturbance of the **critical area** and its **buffer** is allowed.

2. **Permanent barrier or fencing.** The **Director** may require installation of a permanent barrier such as a **fence** or **berm**, if needed to protect the **critical area** and/or its **buffer** from damage or encroachment after construction. Permanent fencing shall be required at the outer edge of the **critical area buffer** under the following circumstances:

   A. **As part of any development proposal for**:
i. Plats;
ii. Short plats;
iii. Parks;
iv. Other development proposals, including but not limited to multifamily, mixed use, and commercial development where the director determines that such fencing is necessary to protect the functions of the critical area;

B. When buffer reductions are employed as part of a development proposal;

C. When buffer averaging is employed as part of a development proposal; and

D. At the director’s discretion to protect the values and functions of a critical area.

Fencing installed in accordance with this section shall be designed to not interfere with fish and wildlife migration and shall be constructed in a manner that minimizes critical areas impacts.

3. Signs. Development proposals approved by the City shall require that the boundary between a critical area buffer and contiguous land shall be identified with permanent signs. Permanent signs shall be a City-approved type designed for high durability. Signs must be posted at an interval of one per lot or every 50 feet, whichever is less, and must be maintained by the property owner or homeowners’ association in perpetuity. The wording, number and placement of the signs may be modified by the director based on specific site conditions.

19.40.220 Permanent protection of critical areas and buffers.

As a condition of approval of a proposed activity within a critical area or its buffer critical area review, the City may require that critical areas and their buffers, except for critical aquifer recharge areas and seismic hazard areas, shall be permanently protected from alteration by tracts or easements. A property owner may also voluntarily propose permanent protection of critical areas and their buffers on the owner’s property by use of tracts, easements, or gifting of the property to the City, or by transfer of development rights. Any required forms or documents related to protective tracts or, easements or transfer of development rights shall be approved by the City Attorney. Any area permanently protected under this section shall impose upon all present and future owners and occupiers of the protected area the obligation to leave the protective area permanently undisturbed, unless otherwise allowed by this chapter. Such obligation shall be enforceable by the City.
City on behalf of the public. The rules for transfer of development rights will be prepared as part of Phase 2 of this Code. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

19.40.230 Bonds.

The Director may require a bond or other security in a form and amount deemed acceptable by the Director to ensure compliance with any aspect of this chapter or any decision or determination made under this chapter. The Director shall administratively prepare and maintain applicable bonding forms and procedures. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]

FREQUENTLY FLOODED AREAS

19.40.240 Flood hazard areas - Components

Frequently flooded areas - Designation.

1. The purpose of designation and protection of frequently flooded areas shall be to:

   A. Reduce the risk to life and safety, public facilities, and public and private property that result from floods.

   B. Avoid and minimize impacts to fish and wildlife habitats that occur within frequently flooded areas.

   C. Assure that flood loss reduction measures protect and are consistent with retaining natural floodplain functions related to protecting riparian habitat and the natural processes that create and maintain habitat for fish.

   D. Assure maintenance of hydraulic, geomorphic, and ecological functions of floodplains.

   E. Control filling, grading, dredging, and other development activities which may increase flood damage and alter beneficial natural stream processes; and

   F. Prevent or regulate the construction of flood barriers that may unnaturally divert floodwaters in such a way as to block natural channel migration, or may increase flood hazards in other areas.

2. A flood hazard area frequently flooded areas shall include consists of the following components:

   A. 100-year Floodplain;

   B. Flood fringe;

   C. Zero-rise floodway; and
32. The City of Burien shall determine the flood hazard area/ frequently flooded area boundaries after obtaining, reviewing and utilizing base flood elevations and available floodway data for a flood having a one percent chance of being equaled or exceeded in any given year, often referred to as the “100-year flood.” The base flood is determined for existing conditions, unless a basin plan including projected flows under future developed conditions has been completed and adopted by the city of Burien, in which case these future flow projections shall be used. In areas where the Flood insurance study for King County includes detailed base flood calculations, those calculations may be used until projections of future flows are completed and approved by the city of Burien. [Ord. 394 § 1, 2003; Ord. 28 § 1(469), 1993]

19.40.250 Flood hazard areas—Frequently flooded areas – General Standards

1. For the purposes of sections 19.40.250, 19.40.260, and 19.40.270, development in frequently flooded areas includes any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, storage of equipment or materials, subdivision of land, removal of substantial amounts of vegetation, or alteration of natural site characteristics.

2. Development within frequently flooded areas shall be subject to the provisions of Chapter 15.55 BMC, Flood Damage Prevention, as amended.

3. Application requirements. In addition to the requirements of Section 19.40.120.4, a critical area study for a frequently flooded area shall contain an assessment of the following site- and proposal-related information that describes the effects of proposed development on floodplain functions including, but not limited to:

   A. Storing and conveying floodwater;

   B. Reducing peak flows and flow velocities;

   C. Reducing redd scour and displacing rearing juvenile fish at the project site and downstream;

   D. Maintaining sediment quality in streams;

   E. Improving water quality;

   F. Maintaining and improving fish access; and
G. Mitigation for any adverse effects on floodplain functions, pursuant to section 19.40.170 of this Chapter.

4. The Director shall have the authority to require consultation with the Washington Department of Fish and Wildlife or other appropriate agencies.

49.40.250 Flood fringe — Development standards and permitted alterations.

54. Development proposals shall not reduce the effective base flood storage volume of the floodplain. Grading or other activity which would reduce the effective storage volume shall be mitigated by creating compensatory storage on the site or off the site if legal arrangements can be made to assure that the effective compensatory storage volume will be preserved over time. Grading for construction of livestock manure storage facilities to control non-point source water pollution designed to the standards of and approved by the King County Conservation District is exempt from this compensatory storage requirement.

62. No structure shall be allowed which would be at risk due to stream bank destabilization including, but not limited to, that associated with channel relocation or meandering.

3. All elevated construction shall be designed and certified by a professional structural engineer licensed by the state of Washington and shall be approved by the city of Burien prior to construction.

4. Subdivisions, short subdivisions and binding site plans shall meet the following requirements:

A. New building lots shall contain 5,000 square feet or more of buildable land outside the zero-rise floodway, and building setback areas shall be shown on the face of the plat to restrict permanent structures to this buildable area.

B. All utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed consistent with subsections 5, 6 and 9;

C. Base flood data and flood hazard notes shall be shown on the face of the recorded subdivision, short subdivision or binding site plan including, but not limited to, the base flood elevation, required flood protection elevations and the boundaries of the floodplain and the zero-rise floodway, if determined; and
D. The following notice shall also be shown on the face of the recorded subdivision, short subdivision or binding site plan for all affected lots:

NOTICE: Lots and structures located within flood hazard areas may be inaccessible by emergency vehicles during flood events. Residents and property owners should take appropriate advance precautions.

5. New residential structures and substantial improvements of existing residential structures shall meet the following requirements:

A. The lowest floor shall be elevated to the flood protection elevation;

B. Portions of a structure which are below the lowest floor area shall not be fully enclosed. The areas and rooms below the lowest floor shall be designed to automatically equalize hydrostatic and hydrodynamic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for satisfying this requirement shall meet or exceed the following requirements:

   i. A minimum of two openings on opposite walls having a total open area of not less than one square inch for every 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; and

   iii. Openings may be equipped with screens, louvers or other coverings or devices if they permit the unrestricted entry and exit of floodwaters;

C. Materials and methods which are resistant to and minimize flood damage shall be used; and

D. All electrical, heating, ventilation, plumbing, air conditioning equipment and other utility and service facilities shall be floodproofed to or elevated above the flood protection elevation.

6. New non-residential structures and substantial improvements of existing non-residential structures shall meet the following requirements:

   A. The elevation requirement for residential structures contained in subsection 5.A. shall be met;

   or

   B. The structure shall be floodproofed to the flood protection elevation and shall meet the following requirements:
I. The applicant shall provide certification by a professional civil or structural engineer licensed by the state of Washington that the floodproofing methods are adequate to withstand the flood depths, pressures, velocities, impacts, uplift forces and other factors associated with the base flood. After construction, the engineer shall certify that the permitted work conforms with the approved plans and specifications; and

ii. Approved building permits for floodproofed nonresidential structures shall contain a statement notifying applicants that flood insurance premiums shall be based upon rates for structures which are one foot below the floodproofed level;

C. Materials and methods which are resistant to and minimize flood damage shall be used; and

D. All electrical, heating, ventilation, plumbing, air conditioning equipment and other utility and service facilities shall be floodproofed to or elevated above the flood protection elevation.

7. All new construction shall be anchored to prevent flotation, collapse or lateral movement of the structure.

8. Mobile homes and mobile home parks shall meet the following requirements:

A. Mobile homes shall meet all requirements for flood hazard protection for residential structures, shall be anchored and shall be installed using methods and practices which minimize flood damage; and

B. No permit or approval for the following shall be granted unless all mobile homes within the mobile home park meet the requirements for flood hazard protection for residential structures:

   i. A new mobile home park;

   ii. An expansion of an existing mobile home park; or

   iii. Any repair or reconstruction of streets, utilities or pads in an existing mobile home park which equals or exceeds 50 percent of the value of such streets, utilities or pads.

9. Utilities shall meet the following requirements:

A. New and replacement utilities including, but not limited to, sewage treatment facilities shall be floodproofed to or elevated above the flood protection elevation;
B. New on-site sewage disposal systems shall be, to the extent possible, located outside the limits of the base flood elevation. The installation of new on-site sewage disposal systems in the flood fringe may be allowed if no feasible alternative site is available.

C. Sewage and agricultural waste storage facilities shall be flood-proofed to the flood protection elevation.

D. Above-ground utility transmission lines, other than electric transmission lines, shall only be allowed for the transport of nonhazardous substances; and

E. Buried utility transmission lines transporting hazardous substances shall be buried at a minimum depth of four feet below the maximum depth of scour for the base flood, as predicted by a professional civil engineer licensed by the state of Washington, and shall achieve sufficient negative buoyancy so that any potential for flotation or upward migration is eliminated.

10. Critical facilities may be allowed within the flood fringe of the floodplain, but only when no feasible alternative site is available. Critical facilities shall be evaluated through the conditional or special use permit process. Critical facilities constructed within the flood fringe shall have the lowest floor elevated to three or more feet above the base flood elevation. Floodproofing and sealing measures shall be taken to ensure that hazardous substances will not be displaced by or released into floodwaters. Access routes elevated to or above the base flood elevation shall be provided to all critical facilities from the nearest maintained public street or roadway.

117. Prior to approving any permit for alterations in the flood fringe frequently flooded area, the city of Burien shall determine that all permits required by state or federal law have been obtained. [Ord. 394 § 1, 2003; Ord. 28 § 1(470), 1993]


1. The requirements which apply to the flood fringe shall also apply to the zero-rise floodway. The more restrictive requirements shall apply where there is a conflict.

2. A development proposal including, but not limited to, new or reconstructed structures shall not cause any increase in the base flood elevation unless the following requirements are met.
A. Amendments to the Flood insurance rate map are adopted by FEMA, in accordance with 44 CFR 70, to incorporate the increase in the base flood elevation; and

B. Appropriate legal documents are prepared in which all property owners affected by the increased flood elevations consent to the impacts on their property. These documents shall be filed with the title of record for the affected properties.

13. The following are presumed to produce no increase in base flood elevation and shall not require a special study to establish this fact:

A. New residential structures outside the FEMA floodway on lots in existence before November 27, 1990, which contain less than 5,000 square feet of buildable land outside the zero-rise floodway and which have a total building footprint of all proposed structures on the lot of less than 2,000 square feet;

B. Substantial improvements of existing residential structures in the zero-rise floodway, but outside the FEMA floodway, where the footprint is not increased;

C. Substantial improvements of existing residential structures meeting the requirements for new residential structures in BMC 19.40.250; and

D. Substantial improvements of existing residential structures in the FEMA floodway, meeting the requirements of WAC 173-158-070, as amended.

24. Post or piling construction techniques which permit water flow beneath a structure shall be used.

35. All temporary structures or substances hazardous to public health, safety and welfare, except for hazardous household substances or consumer products containing hazardous substances, shall be removed from the zero-rise floodway during the flood season from September 30th to May 1st.

46. New residential or nonresidential structures shall meet the following requirements:

A. The structures shall be outside the FEMA floodway; and

B. The structures shall be on lots in existence before November 27, 1990, which contain less than 5,000 square feet of buildable land outside the zero-rise floodway.
Utilities may be allowed within the zero-rise floodway if the city of Burien determines that no feasible alternative site is available, subject to the following requirements:

A. Installation of new on-site sewage disposal systems shall be prohibited unless a waiver is granted by the Seattle/King County department of public health; and

B. Construction of sewage treatment facilities shall be prohibited.

Critical facilities shall not be allowed within the zero-rise floodway except as provided in subsection 840.

Livestock manure storage facilities and associated nonpoint source water pollution facilities designed, constructed and maintained to the standards of and approved in a conservation plan by the King County Conservation District may be allowed if the city of Burien reviews and approves the location and design of the facilities.

Structures and installations which are dependent upon the floodway may be located in the floodway if the development proposal is approved by all agencies with jurisdiction. Such structures include, but are not limited to:

A. Dams or diversions for water supply, flood control, hydroelectric production, irrigation or fisheries enhancement;

B. Flood damage reduction facilities, such as levees and pumping stations;

C. Stream bank stabilization structures where no feasible alternative exists for protecting public or private property;

D. Storm water conveyance facilities subject to the development standards for streams and wetlands and the Surface Water Design Manual;

E. Boat launches and related recreation structures;

F. Bridge piers and abutments; and

G. Other fisheries enhancement or stream restoration projects. [Ord. 394 § 1, 2003; Ord. 28 § 1(471), 1993]

1. The requirements which apply to the zero-rise floodway shall also apply to the FEMA floodway. The more restrictive requirements shall apply where there is a conflict.

2. A development proposal including, but not limited to, new or reconstructed structures shall not cause any increase in the base flood elevation.

3. New residential or nonresidential structures are prohibited within the FEMA floodway.

4. Substantial improvements of existing residential structures in the FEMA floodway, meeting the requirements of WAC 173-158-070, as amended, are presumed to produce no increase in base flood elevation and shall not require a special study to establish this fact. [Ord. 394 § 1, 2003; Ord. 28 § 1(472), 1993]

19.40.280 Flood hazard areas – Certification by engineer or surveyor.

1. For all new structures or substantial improvements in a flood hazard area, the applicant shall provide certification by a professional civil engineer or land surveyor licensed by the state of Washington of:

   A. The actual as-built elevation of the lowest floor, including basement; and

   B. The actual as-built elevation to which the structure is floodproofed, if applicable.

2. The engineer or surveyor shall indicate if the structure has a basement.

3. The city of Burien shall maintain the certifications required by this section for public inspection. [Ord. 394 § 1, 2003; Ord. 28 § 1(473), 1993]

GEOLOGICALLY HAZARDOUS AREAS

19.40.280 Geologically hazardous areas – Designation.

1. Intent. Geologically hazardous areas are a potential threat to public health, safety and welfare when construction of geotechnically incompatible uses is allowed. Some potential risk due to construction in geologically hazardous areas can be reduced through engineering design. Alteration of and construction in geologically hazardous areas should be avoided when the potential risk to public health and safety cannot be reduced to a level comparable to the undeveloped site.
2. Geologically hazardous areas include areas susceptible to erosion, landslide, rock fall, subsidence, earthquake, or other geological events. Areas susceptible to one or more of the following types of hazards shall be designated as a geologically hazardous area:

   A. Erosion hazard;
   B. Landslide hazard; or
   C. Seismic hazard.

3. The approximate location and extent of known landslide hazard areas and seismic hazard areas are shown on the Critical Areas Map adopted by the City, as described in BMC 19.40.040 and as most recently updated. For landslide hazard areas and seismic hazard areas depicted on the Critical Areas Map, the King County Census Areas Mapfolio from December 1990 was used as a base map. The City amends this map as new site-specific information becomes available from professional critical area studies completed as part of critical area review.

4. The following areas are exempt from designation as geologically hazardous areas:

   A. Slope exemptions: The following slopes are exempt, unless the slope is part of another critical area or required buffer:
      i. Slopes resulting from street, alley, sidewalk and other typical rights-of-way improvements, including rockeries or retaining walls. This exemption shall not extend beyond the cut or fill created by the street, alley, sidewalk or other rights-of-way improvement.
      ii. Slopes with a vertical elevation change of up to ten feet (10) and not part of a larger steep-slope system.
      iii. Slopes which have been created through previous verifiable, legal grading activities, may be exempted by the Director based on a geotechnical report demonstrating that no adverse impact will result from the exemption.
19.40.290 Geologically hazardous areas – Development standards and permitted alterations.

1. Intent. Geologically hazardous areas are a potential threat to public health, safety and welfare when construction of geotechnically incompatible uses is allowed. Some potential risk due to construction in geologically hazardous areas can be reduced through engineering design. Alteration of and construction in geologically hazardous areas should be avoided when the potential risk to public health and safety cannot be reduced to a level comparable to the undeveloped site.

2. Standards—Seismic hazard areas. Development in seismic hazard areas shall be in accordance with the standards for earthquake design and seismic motion of the City of Burien Construction Code.

3. Standards—Erosion hazard areas and landslide hazard areas. Development on or within 50 feet of areas designated erosion hazard areas or landslide hazard areas shall comply with the following requirements:

   A. Buffer. A minimum 50 foot wide buffer shall be established from all edges of a landslide hazard area. The buffer shall be extended as required to mitigate hazards identified in the critical area study or as otherwise necessary to protect the public health, safety and welfare. The buffer shall be maintained in native vegetation to provide additional soil stability and erosion control. If the buffer area has been previously cleared, it shall be replanted with native vegetation pursuant to a landscape plan submitted by the applicant and approved by the Director.

   B. Buffer reduction. As part of critical area review, the Director may reduce or waive the landslide hazard area buffer if the applicant shows that the following criteria are met:

      i. The proposed development does not pose an unreasonable threat to the public health, safety or welfare on or off the development proposal site and is consistent with the general purposes of this chapter and the public interest; and

      ii. There is no feasible alternative with less impact on the critical area.
iii. For a buffer of between 0 feet and 25 feet, in addition to the items required in BMC 19.40.120, the critical area study must specifically discuss and support the requested buffer reduction, including:

   a. The ability to maintain long-term stability of the landslide hazard area; and

   b. Any appropriate mitigating measures needed to mitigate impacts of the buffer reduction; and

   c. An assessment of any increased risk that could result from the buffer reduction.

C. Erosion control. An erosion control plan shall be submitted to the Director for approval prior to any clearing, grading, construction or other alteration. The Director may limit clearing, grading or filling to the period between April 1st and October 1st.

D. Disturbance and alterations. Any alterations permitted in or within 50 feet of an erosion hazard area or landslide hazard area, or in a required landslide hazard area buffer, shall comply with the following criteria:

   i. All proposed alterations shall be limited to the minimum necessary to accomplish the applicant's objectives and engineering design.

   ii. The face of cuts and fills shall be prepared and maintained to control against erosion and instability. Bluffs shall be protected from surface erosion.

   iii. The proposal shall not increase the rate of surface water runoff, erosion or sedimentation, shall not increase geologic hazards for any property, and shall reduce ponding and infiltration of storm drainage.

   iv. Development must be located and designed to minimize slope disturbance, minimize removal of vegetation, and retain open space.

   v. Shared access drives and utility corridors are required where feasible. Vehicular access shall be in the least sensitive area of the site.
vi. Foundations should be tiered where possible to conform to the existing topography of the site. Roads, walkways, driveways and parking areas should be designed to parallel the natural contours.

vii. All development shall be designed to minimize impervious surface coverage and where feasible should incorporate under-structure parking and multi-level structures.

viii. Construction techniques must minimize disruption of existing topography and existing vegetation. Any disturbed vegetation shall be restored as soon as feasible.

ix. The applicant shall submit a detailed site plan prepared by a licensed engineer showing all proposed clearing, grading, drainage and utilities. The Director may require that all proposed clearing, grading, drainage and utility locations be marked in the field by a licensed land surveyor, based on the engineer-prepared site plan.

E. Landscaping. The disturbed area of a site shall be landscaped to provide erosion control and to enhance wildlife habitat. Landscape plantings should include trees and shrubs with a mix of shade, flowering, and coniferous and broad-leaf evergreens that are either native to the Puget Sound area or are valuable to western Washington birds and wildlife as listed by the Department of Fish and Wildlife. [Ord. 523 § 1, 2009]

F. Vegetation maintenance. Limited trimming and pruning of vegetation for the creation and maintenance of views is allowed in accordance with the pruning standards of the International Society of Arboriculture; provided, that the soils are not disturbed and the activity will not increase the risk of landslide or erosion.

34. Application requirements. In addition to the requirements of Section 19.40.090.3, an application for critical area review involving a landslide hazard area shall include at least the following additional items, submitted by the applicant and prepared at the applicant’s expense. The Director may waive any of the following submittal requirements if not applicable to the proposal:

A. Plans and specifications prepared by a licensed architect or licensed professional engineer, in accordance with the City of Burien Construction Code;

B. A footing and foundation plan prepared by a licensed professional engineer incorporating the recommendations contained in the critical area study;
C. A Level 1 drainage analysis prepared by a licensed professional engineer in accordance with the Surface Water Design Manual as adopted by the City of Burien;

D. A storm water management plan prepared by a licensed professional engineer incorporating the recommendations contained in the Level 1 drainage analysis;

E. A vegetation management plan pursuant to BMC 19.40.190 showing all existing vegetation and which vegetation is proposed for removal. The location, size and species of all significant trees on the site shall be indicated by survey. Significant trees shall be retained, protected, or replaced in accordance with BMC 19.40.190. The plan shall propose mitigation measures to prevent erosion and protect the geologically hazardous area, its buffer and other properties from hazards and adverse impacts.

F. A landslide hazard area affidavit in a form approved by the City attorney, submitted by the applicant, which waives any claims against the City, releases the City from all liability, holds the City harmless, and agrees to indemnify the City for all costs, claims, and demands of any kind, including but not limited to attorney and expert witness fees associated with litigation, arbitration, or any other adversary proceeding arising in any manner from the owner’s or the owner’s agents’ acts or omissions relating in any manner to the development. The affidavit shall be recorded with the King County assessor’s office prior to, and as an express condition of, the issuance of any grading or building permit;

G. All other applicable codes of the City are met including but not limited to the setback, height, impervious surface coverage, and other requirements of the this code and the requirements of the shoreline master program and the City of Burien Construction Code;

H. The applicant’s geotechnical engineer or geologist shall review the project plans and specifications prior to issuance of any permits and provide written confirmation to the City that the recommendations and design criteria have been fully incorporated into the project documents;

I. The applicant’s geotechnical engineer or geologist shall monitor project construction and provide written confirmation that the project has been constructed in accordance with their recommendations and design criteria. Changes to the recommended designs for excavation and construction which are based on new information shall be reviewed and approved by the City prior to proceeding with the development activity. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003]
WETLANDS

19.40.300 Wetlands – Designation and Classification.

1. General Requirements

   **Intent.** Wetlands provide fish and wildlife habitat, flood storage, water quality, recreation, educational opportunities, and aesthetics. The goal of wetland regulations in the City of Burien is to achieve no net loss of wetland functions and values.

2. Designation and Applicability.

   A. Wetlands are those areas in the City of Burien, designated in accordance with the approved federal wetland delineation manual and applicable regional supplements. All areas within the City of Burien meeting the wetland designation criteria in that procedure, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this Chapter. [RCW 36.70A.175, RCW 90.58.380 (1995); WAC 173-22-035 (2011)]

   A. All wetlands meeting the federal definition of wetlands that lie within the City limits of Burien are regulated by this section.

   B. Where the vegetation has been removed or substantially altered, a wetland shall be determined by the presence or evidence of hydric or organic soil, as well as by other documentation, such as aerial photographs, of the previous existence of wetland vegetation.

   C. Puget Sound and Lake Burien are shorelines of the state and shall be regulated under the Burien Shoreline Management Master Program.

3. Designation of Wetlands.

   A. Wetlands are those areas in the City of Burien, designated in accordance with the Washington State Wetland Identification and Delineation Manual, as required by RCW 36.70A.175 (Ecology Publication #96-04). Wetlands are defined as those areas that are inundated or saturated, by ground or surface water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.
B. The designation of wetlands through application of the protocols outlined in the Washington State Wetland Identification and Delineation Manual, regardless of any other formal identification, shall designate those wetland areas as critical areas and shall be subject to the provisions of BMC 19.40.

Where the vegetation has been removed or substantially altered, a wetland shall be determined by the presence or evidence of hydric or organic soil, as well as by other documentation, such as aerial photographs, of the previous existence of wetland vegetation.

34. Wetland Rating and Classification:

A. Wetlands are classified into category I, category II, category III and category IV based on the adopted Washington State Wetland Rating System for Western Washington, Washington State Department of Ecology publication number 14-06-029, or as amended.

B. Wetland rating categories shall not recognize illegal modifications.

Wetlands shall be designated Category 1, 2, 3, or 4 according to the criteria in this section:

i. Category 1: Wetlands that meet any of the following criteria:

   a. Documented presence of fish, wildlife, or plant species listed by the federal or state government as endangered or threatened or outstanding actual habitat for those species;

   b. Equal to or greater than 10 acres in size and have three or more wetland classes as defined in BMC 19.10;

   c. Association with a Type 1 stream;

   d. Presence of plant associations of infrequent occurrence or High Quality Native Wetland Communities. Examples include: bogs and fens, estuarine wetlands, mature forested wetlands, or kelp and eelgrass beds; or

   e. Documented as regionally significant waterfowl or shorebird concentration areas.
ii. Category 2: *Wetlands* that do not meet any of the criteria for Category 1, but meet any of the following criteria:

a. Greater than one acre in size;

b. Equal to or less than one acre in size and have three or more *wetland classes* as defined in BMC 19.10;

c. *Forested wetlands* equal to or less than one acre;

d. Documented presence of heron rookeries or raptor nesting trees;

e. Documented occurrences of *sensitive species* of plant, animal or fish recognized by federal or state agencies;

f. Associated with Type 2 or 3 streams; or

g. *Wetlands* with significant habitat value (Greater than or equal to 22 points on the Wetlands Rating Form).

iii. Category 3: A *wetland* that does not meet any of the criteria for Category 1 or 2, but meets either of the following criteria:

a. Of a size between 1,000 square feet and one acre, with two or fewer *wetland classes* as defined in BMC 19.10;

b. *Wetlands* where the habitat score for significant habitat value is less than or equal to 21 points;


v. The following types of *wetlands* are not regulated by the City of Burien:

a. Category 3 All hydrologically isolated Category III and IV *wetlands* less than 1,000 square feet and hydrologically isolated that:

ai. Are not associated with riparian areas or buffers,

bi. Are not part of a wetland mosaic, and

1. General Requirements.

   A. Any alterations to a wetland and/or wetland buffer shall require mitigation as described in BMC 19.40.330.

   B. The use of hazardous substances, pesticides and fertilizers in the wetland and its buffer are prohibited by the City of Burien unless approved by the Director.

   C. Plantings in a wetland or buffer should be native to Western Washington or be a native plant community appropriate for the ecoregion or increase the functions of the wetland or wildlife habitat.

   D. No vegetation removal, including mowing, shall be allowed in a wetland or wetland buffer unless authorized by the Director. Removal of noxious weeds is permitted if done manually.

   E. Non-Conformance. Activities occurring in a wetland or wetland buffer prior to October 20, 2003 shall be considered a non-conforming use as described in BMC 19.55.

   F. Unless otherwise provided, the following restrictions shall apply to all development proposals in Category I, II, or III wetlands that include the introduction of livestock:

      i. Implementation of a plan approved by the Director to protect and enhance the wetland’s water quality; and

      ii. Fencing located at the buffer edge. [Ord. 394 § 1, 2003]

2. Buffers.
A. A buffer area shall be established adjacent to designated wetland areas. The purpose of the buffer area shall be to protect the integrity, functions, and values of the wetland area. Buffer widths shall be appropriate for the sensitivity of the wetland and for the risks associated with land use development.

B. The following standard buffers shall be established from the wetland edge:

<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>Standard Wetland Buffer (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1*</td>
<td>200</td>
</tr>
<tr>
<td>Category 2</td>
<td>100</td>
</tr>
<tr>
<td>Category 3</td>
<td>50</td>
</tr>
<tr>
<td>Category 4</td>
<td>30</td>
</tr>
</tbody>
</table>

* As of October 20, 2003 the date of adoption of this Chapter, no Category 1 wetlands exist in Burien.

C. Buffer widths as defined in subsection B above assume 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.

D. Wetland buffers shall be measured from the wetland edge as delineated and marked in the field.

E. Any wetland restored, relocated, replaced or enhanced because of a wetland alteration shall have the minimum buffer required for the highest wetland class involved pursuant to an approved compensatory mitigation plan set forth in Section 19.40.330.

E. No structures are allowed within fifteen (15) feet of the edge of a designated or modified wetland buffer. This area serves to protect the wetland during development activities, use, and routine maintenance occurring adjacent to these resources. The following may be allowed within fifteen (15) feet of the buffer edge: landscaping, uncovered decks, building overhangs which do
not extend more than eighteen (18) inches into the area, and driveways and patios subject to water quality regulations as adopted in the City’s stormwater management regulations (BMC 13-10).

F. Increased buffer widths may be required by the City of Burien when:

   i. The buffer is within twenty-five (25) feet of the toe of a slope that is greater than thirty percent (30%); or

   ii. The slope is susceptible to erosion and standard best management practices (BMP’s) and erosion-control measures will not prevent adverse impacts to the wetland.

G. Standard buffer width averaging may be allowed by the Director (in accordance with an approved critical area review) if:

   i. Additional protection to wetlands will be provided through the implementation of a buffer enhancement plan;

   ii. Minimum buffer width is the greater of fifty-seventy-five percent (50-75%) of the standard buffer width or twenty-five (25) feet;

   iii. Wetland functions or values will not be reduced; and

   iv. As long as the total area contained in the buffer on the development proposal site does not decrease.

H. Buffer reduction with enhancement may be allowed by the Director (in accordance with an approved critical area review) if:

   i. Additional protection to wetlands will be provided through the implementation of a buffer enhancement plan;

   ii. The existing condition of the buffer is degraded;

   iii. Buffer enhancement includes, but is not limited to the following:

      a. Planting vegetation that would increase value for fish and wildlife habitat, improve water quality, or provide aesthetic/recreational value.
b. **Enhancement of wildlife habitat** by incorporating **structures** that are likely to be used by wildlife, including wood duck boxes, bat boxes, nesting platforms, snags, rootwads/stumps, birdhouses, and heron nesting areas.

c. Removing non-native plant **species** and **noxious weeds** from the **buffer** area and replanting the area subject to BMC 19.40.310.2.H.iii (a).

iv. **Buffer** reductions under this Section shall be limited to twenty five (25)% of the standard **buffer** width or a minimum of twenty-five (25) feet, whichever is greater.

v. If the **buffer** reduction results in a **buffer** of less than twenty-five (25) feet, the **applicant** shall be responsible for attending an environmental stewardship **Class Acceptable** to the City.

1. **Implementation of a plan approved by the Director to protect and enhance the wetland’s water quality; and**

2. **Fencing located at the buffer edge.** [Ord. 394 § 1, 2003]

19.40.320 Wetlands – Permitted Alterations.

1. Activities and uses shall be prohibited from **wetlands** and **wetland buffers**, except as allowed in this section.

2. The following activities are allowed outright without completion of a critical area review as described in BMC 19.40.090:

A. Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife that does not entail changing the structure or functions of the existing **wetland**.

B. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, or **alteration** of the **wetland** by changing existing topography, water conditions or water sources.

C. **Site**-specific biological studies with the purpose of collecting data for critical area studies.

D. Removal of **noxious weeds** if done manually.
3. Alterations to Wetlands.

A. Activities and uses shall be prohibited from Category I wetlands.

B. Alterations to Category II, III, and IV wetlands may be permitted if the Director determines, based upon review of special studies completed by qualified professionals, that:

   i. It will not adversely affect water quality;

   ii. It will not adversely affect fish, wildlife, or their habitat;

   iii. It will not have an adverse effect on drainage and/or storm water detention capabilities;

   iv. It will not lead to unstable earth conditions or create an erosion hazard or contribute to scouring actions;

   v. It will not be materially detrimental to any other property or the City as a whole; and

   vi. It will not have adverse effects on any other critical areas.

4. Alterations to Wetland Buffers. No land surface alteration or improvement may occur in a wetland buffer except as provided for below:

A. Buffer enhancements may be allowed pursuant to an approved mitigation plan.

B. Utilities such as water, telephone, cable, electric, and natural gas may be allowed in wetland buffers if:

   i. The Director determines that no practical alternative location is available; and

   ii. The utility corridor meets any additional requirements set forth by the Director and BMC 19.40.070(3) including, but not limited to, requirements for installation, replacement of vegetation and maintenance pursuant to an approved mitigation plan as set forth in 19.40.330.

C. Sewer utility corridors may be allowed in wetland buffers only if all of the following criteria are met:

   i. The applicant demonstrates that sewer lines are necessary for gravity flow;
The corridor is not located in a wetland or buffer used by species listed as endangered or threatened by the state or federal government or containing critical or outstanding actual habitat for those species or heron rookeries or raptor nesting trees;

The corridor alignment including, but not limited to, any allowed maintenance roads, follows a path beyond a distance equal to 75 percent of the buffer width from the wetland edge;

iv. Corridor construction and maintenance protects the wetland and buffer and is aligned to avoid cutting trees greater than 12 inches in diameter at breast height, when possible, and pesticides, herbicides and other hazardous substances are not used;

An additional, contiguous and undisturbed buffer, equal in width to the proposed corridor including any allowed maintenance roads, is provided to protect the wetland;

vi. The corridor is revegetated with appropriate vegetation native to the City at preconstruction densities or greater immediately upon completion of construction or as soon thereafter as possible, and the sewer utility ensures that such vegetation survives;

vii. Any additional corridor access for maintenance is provided, to the extent possible, at specific points rather than by a parallel road;

The width of any necessary parallel road providing access for maintenance is as small as possible, but not greater than 15 feet, the road is maintained without the use of herbicides, pesticides or other hazardous substances and the location of the road is contiguous to the utility corridor on the side away from the wetland;

ix. Joint use of an approved sewer utility corridor by other utilities may be allowed.

D. The following surface water management activities and facilities may be allowed in wetland buffers only as follows:

Surface water discharge to a wetland buffer from a detention facility, pre-settlement pond or other surface water management activity or facility may be allowed if the discharge does not increase the rate of flow, change the plant composition in a forested wetland or decrease the water quality of the wetland;
i. Stormwater management facilities are limited to stormwater dispersion outfalls and bioswales. They are not allowed in buffers of Category I or II wetlands, but may be allowed within the outer twenty-five percent (25%) of the buffer of Category III or IV wetlands, provided that:

   a. No other location is feasible; and

   b. The location of such facilities will not degrade the functions and values of the wetland; and

   c. All requirements of the King County Surface Water Design Manual, as adopted in BMC 13.10, are met.

ii. A Category 2 wetland or buffer may be used for a regional retention/detention facility if:

   a. A public agency and utility exception is granted pursuant to BMC 19.40.070.3;

   b. All requirements of the Surface Water Design Manual are met; and

   c. The use will not alter the rating or the factors used in rating the wetland.

iii. A Category 3 wetland buffer which has as its major function the storage of water may be used as a regional retention/detention facility if a pre-settlement pond is required and all requirements of the Surface Water Design Manual are met; and

iv. Use of a wetland buffer for a surface water management activity or facility, other than a retention/detention facility, such as an energy dissipater and associated pipes, may be allowed only if the applicant demonstrates, to the satisfaction of the City, that:

   a. No practicable alternative exists; and

   b. The functions of the buffer or the wetland are not adversely affected.

E. Public and private trails may be allowed in the outer 25% of wetland buffers only if:

   i. The trail surface is no more than 5 feet wide and shall not be made of impervious materials, except that public multipurpose trails may be made of impervious materials if:

      a.) they meet all other requirements including water quality; and
b. an impervious trail has less of an impact on the wetland and its buffer.

ii. The use of elevated boardwalks for trails is encouraged. [Ord. 394 § 1, 2003]

19.40.330 Wetlands – Additional Mitigation Requirements.

1. General Requirements.

A. All approved activities that affect regulated wetlands or their buffers require compensatory mitigation so that the goal of no net loss of wetland function or value may be achieved.

B. Mitigation for alterations to wetlands shall achieve equivalent or greater biological functions. Mitigation plans shall be consistent with this Chapter (BMC 19.40.170) and Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance (Version 1, Ecology Publication #06-06-011a) or as amended, and the Department of Ecology Guidelines for Developing Freshwater Wetlands Mitigation Plans and Proposal (Ecology, 1994) or other best available science.

C. Wetland mitigation shall provide for in-kind lost functions and values. Mitigation actions shall address functions affected by the alteration to achieve functional equivalency or improvement, and shall provide similar wetland functions as those lost except when:

i. The altered wetland provides minimal functions as determined by a site-specific function assessment; and

ii. The proposed mitigation action(s) will provide equal or greater functions or will provide functions that are limited in the watershed; or

iii. Out of kind replacement will best meet formally identified regional goals, such as replacement of historically diminished wetland types.

2. Types of Mitigation. Impacts to wetlands shall be mitigated according to the mitigation sequence defined in BMC 19.40.170, Mitigation Requirements. Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to wetlands and wetland buffers. When an alteration to a wetland or its required buffer is proposed, such alteration shall be avoided, minimized, or compensated for in the following order of preference: Mitigation actions that require compensation by replacing, enhancing, or substitution shall occur in the following order of preference:
A. Avoidance of wetland and wetland buffer impacts, whether by finding another site or changing the location of the proposed activity on-site.

B. Minimizing wetland and wetland buffer impacts by limiting the degree of impact on-site.

C. Mitigation actions that require compensation by replacing, enhancing, or substitution shall occur in the following order of preference:

   i. **Restoring wetlands** on upland sites that were formerly wetlands.

   ii. **Creating wetlands** on disturbed upland sites such as those with vegetative cover consisting primarily of exotic introduced species or noxious weeds.

   iii. **Enhancing** significantly degraded wetlands.

3. Mitigation Location. Mitigation actions shall be conducted within the same sub-drainage basin and on the site as the alteration except when all of the following apply:

   A. There are no reasonable on-site or in sub-drainage basin opportunities or on-site and in sub-drainage basin opportunities do not have a high likelihood of success due to development pressures, adjacent land uses, or on-site buffers or connectivity are inadequate;

   B. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland; and

   C. Off-site locations shall be in the same sub-drainage basin and the same Water Resource Inventory Area (WRIA) unless:

      i. Regional or watershed goals for water quality, flood or conveyance, habitat or other wetland functions have been established and strongly justify location of mitigation at another site, or

      ii. Credits from a state-certified wetland mitigation bank are used as compensation, and the use of credits is consistent with the terms of the certified bank instrument; or

      iii. Fees are paid to an approved in-lieu fee program to compensate for the impacts.
D. If compensatory wetland or wetland buffer mitigation is proposed off-site, a signed statement of consent is required from owners of all affected properties. This statement shall be submitted to the Director and a Notice on Title recorded with King County Department of Assessments prior to approval of a compensatory mitigation plan.

4. Mitigation Timing. Mitigation shall be completed immediately following disturbance and prior to use or occupancy of the activity or development causing the wetland alteration. Construction of mitigation projects shall be timed to reduce impacts to existing wildlife and flora.

5. Mitigation Schedule.

A. A mitigation monitoring schedule shall be established for a period of a minimum of five years.

B. An “as-built” mitigation report shall be submitted to the City within one month of mitigation installation. Acceptance of the as-built report by the City will be made after a site investigation is performed by the City, and all changes requested by the City are completed.

C. Mitigation monitoring reports shall be submitted annually to the City.

6. Financial Surety. A performance bond, or other approved financial surety, is required before building and clearing and grading permits are issued. The purpose of the financial surety is to hold an applicant accountable for implementing the mitigation, monitoring, and contingency plans. The release of financial surety is contingent on satisfactory completion by the applicant of the proposed construction, mitigation, monitoring, and contingency plans as determined by the Director.

7. Mitigation Ratios.

A. The following ratios shall apply to creation or restoration that meets all other requirements in Section 19.40.330.1 to .6 and is the same category of wetland, and has a high probability of success. The first number in the following table specifies the acreage of replacement wetlands and the second specifies the acreage of wetlands altered.

<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>Creation or Restoration Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1 and 2</td>
<td>3-to-1</td>
</tr>
<tr>
<td>Category 3 and 4</td>
<td>2-to-1</td>
</tr>
</tbody>
</table>

Comment [DB87]: We recommend ten years where a scrub-shrub or forested vegetation community is proposed.

Comment [NL88]: It is atypical for small residential projects to require more than a 5 year monitoring & maintenance period. Planting density and/or area may be increased to compensate for loss of significant trees. The mitigation plan should justify how critical area functions and values are maintained. Forested versus non-forested wetland impacts could be addressed in section on mitigation ratios (bullet 7 below) per Ecology guidance.

Comment [DB89]: We recommend the table on page A-19 of the Small Cities Guidance. It’s consistent with the joint agency guidance mentioned above.

Comment [TB90]: We’ve inserted the table mentioned by Ecology above. This is required for consistency with BAS.
<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>Creation or Restoration Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I: based on total score</td>
<td>4:1</td>
</tr>
<tr>
<td>Category I: Mature Forested</td>
<td>6:1</td>
</tr>
<tr>
<td>Category II</td>
<td>3:1</td>
</tr>
<tr>
<td>Category III</td>
<td>2:1</td>
</tr>
<tr>
<td>Category IV</td>
<td>1.5:1</td>
</tr>
</tbody>
</table>

B. Increased creation or restoration ratios. The City of Burien may increase the ratios under the following circumstances:

   i. Uncertainty exists as to the probable success of the proposed restoration or creation;

   ii. A significant period of time will elapse between impact and replication of wetland functions;

   iii. Proposed mitigation will result in a lower category wetland or reduced functions relative to the wetland being impacted; or

   iv. The impact or alteration requiring mitigation was not authorized by the City.

8. Wetlands Enhancement as Mitigation.

A. Impacts to wetlands may be mitigated by enhancement of existing significantly degraded wetlands. Applicants proposing to enhance wetlands must produce a critical area study that identifies how enhancement will increase the functions of the degraded wetland and how this increase will adequately mitigate for the loss of wetland area and function at the impact site.
**enhancement** proposal must also show whether existing **wetland** functions will be reduced by the **enhancement** actions.

B. At a minimum, **enhancement** acreage shall be double according to the ratios in Section 19.40.330.7 above, the acreage required for creation or restoration under Subsection A.

9. Wetland and Wetland Buffer Violations. **Restoration** shall be required when a **wetland** or its **buffer** is altered in violation of law or without any specific permission or approval by the **Director**. The following minimum requirements shall be met for the **restoration** of a **wetland**:

A. The original **wetland** configuration shall be replicated including its depth, width, length and gradient at the original location;

B. The original soil type and configuration shall be replicated;

C. The **wetland edge** and **buffer** configuration shall be restored to its original condition;

D. The **wetland edge** and **buffer** shall be replanted with vegetation **native** to Burien which replicates the original vegetation in **species**, sizes and densities; and

E. The original **wetland** functions shall be **restored** including, but not limited to, hydrologic and biologic functions.

F. Violators may be imposed penalties pursuant to Chapter 1.15 BMC.

G. At the discretion of the **Director**, the violator may be required to enhance the **wetland** or **wetland buffer** to provide higher **functions and values** than the original **wetland** or **wetland buffer**.

[Ord. 560 § 1 (Exh. A), 2012; Ord. 394 § 1, 2003]

### STREAMS

1. General Requirements. The goal of **stream** regulations in the City of Burien is to preserve and enhance **stream** banks and **stream** channels to their natural condition and to maintain and enhance existing fish and wildlife **species** and habitat diversity.
2. Applicability. All water bodies meeting the definition of streams that lie within the City of Burien are regulated by this section. Ditches are excluded from regulation as streams under this section; ditches and artificial drainage features with documented current fish usage are regulated as streams.

3. Stream Classifications. Streams shall be classified as Type 1S, Type 2F, Type 3Np, or Type 4Ns according to the criteria in this section permanent water typing system (WAC 222-16-030). Water types are described generally below:

   A. Type S waters are all waters inventoried as “shorelines of the state” under Chapter 90.58 RCW. Type S waters are not regulated under this Chapter and are subject to the Shoreline Master Program (Title 20 BMC).

   B. Type F waters are segments of natural waters, other than Type S waters, which contain fish habitat.

   C. Type Np waters include those which are perennial during a year of normal rainfall and do not have the potential to be used by fish and are typically formed by geomorphic processes.

   D. Type Ns waters include those which are seasonal or ephemeral during a year of normal rainfall and do not have the potential to be used by fish and were generally formed by geomorphic processes.

   A. Type 1- Streams inventoried as “Shorelines of the State” under Chapter 90.58 (RCW).

   B. Type 2- Streams that are natural streams that have perennial (year round) or intermittent flow and have documented use by salmonids.

   C. Type 3- Streams that are natural streams that have perennial flow and are not used by salmonids.

   D. Type 4- Streams that are natural streams with perennial or intermittent flows that are not used by fish. [Ord. 394 § 1, 2003]


1. General Requirements.
A. Any alterations to a stream may require state and federal approvals that may require mitigation and conditions of approval beyond those required by the City.

B. The use of hazardous substances, pesticides and fertilizers in the stream corridor and its buffer are prohibited by the City of Burien unless approved by the City.

C. Plantings in a stream or buffer should be native to Western Washington or increase the functions of the stream or buffer.

D. No vegetation removal, including mowing, shall be allowed in a stream buffer unless authorized by the Director. Removal of noxious weeds is permitted if done manually.

E. Non-Conformance. Activities occurring in a stream or stream buffer prior to October 20, 2003 shall be considered a non-conforming use as described in BMC 19.55.

2. Buffers.

A. A stream buffer area shall be established as required in this section. The purpose of the buffer shall be to protect the integrity, functions, and values of the stream.

B. Required buffer widths shall reflect the sensitivity of the particular stream. The following minimum buffers for streams shall be established from the ordinary high water mark of the adjacent stream(s) or from the top of the defined stream bank if the ordinary high water mark cannot be identified:
<table>
<thead>
<tr>
<th>Stream Type</th>
<th>Standard Stream Buffer (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1*</td>
<td>125</td>
</tr>
<tr>
<td>Type 2</td>
<td>100</td>
</tr>
<tr>
<td>Type 3</td>
<td>50</td>
</tr>
<tr>
<td>Type 4</td>
<td>25</td>
</tr>
</tbody>
</table>

* as of October 20, 2003 date of adoption of this Chapter, no Type 1-5 streams exist in Burien

C. Any stream restored or enhanced because of a stream alteration shall have the minimum buffer required for the highest stream class involved pursuant to an approved mitigation plan and stream study set forth in Section 19.40.370.

D. No impervious surfaces are allowed within fifteen (15) feet of the edge of a designated or modified stream buffer. This area serves to protect the stream during development activities, use, and routine maintenance occurring adjacent to these resources. The following impervious surfaces may be allowed within fifteen (15) feet of the buffer edge: building overhangs which do not extend more than eighteen (18) inches into the area, and residential driveways and patios subject to water quality regulations as adopted in the City’s stormwater management regulations (BMC 13.10).

DE. Increased stream buffer widths may be required by the City of Burien when the slope is susceptible to erosion and standard erosion-control measures will not prevent adverse impacts to the stream.

Comment [TB98]: Recommendation from the Gap Analysis. City will need to adopt for consistency with BAS. Note that for the purposes of buffers, Type 2 streams will become Type F, Type 3 and 4 will become Np and Ns, respectively.

Comment [TB99]: BAS-based ranges for the recommended water typing system:
- Type F: 100-165 ft
- Type Np: 50-65 ft
- Type Ns: 50-65 ft

Note that buffers may be reduced to 25 feet – see bullet H (old numbering) below.

Comment [TB100]: Updated to be current

Comment [TB101]: Moved to 19.40.230 General development standards
Any stream with an ordinary high water mark within twenty-five (25) feet of the toe of a slope thirty percent (30%) or steeper, shall have the minimum buffer required for the stream class involved or a twenty-five (25) foot buffer beyond the top of the slope, whichever is greater.

Standard buffer width averaging may be allowed by the Director (in accordance with an approved critical area review) if:

i. Additional protection to the stream and riparian habitat area will be provided through the implementation of a buffer enhancement plan as described in BMC 19.40.350.2(H);

ii. Minimum buffer width is the greater of fifty percent (50%) of the standard buffer width or twenty-five (25) feet;

iii. Stream and riparian functions or values will not be reduced; and

iv. As long as the total area contained in the buffer on the development proposal site does not decrease.

Buffer reduction with enhancement may be allowed by the Director (in accordance with an approved critical area study) if:

i. Additional protection to streams will be provided through the implementation of a buffer enhancement plan.

ii. The existing condition of the buffer is degraded.

iii. Buffer enhancement includes, but is not limited to, the following:

a. Planting vegetation that would increase value for fish and wildlife habitat, improve water quality, or provide aesthetic/recreational value.

b. Enhancement of wildlife habitat by incorporating structures that are likely to be used by wildlife, including wood duck boxes, bat boxes, nesting platforms, snags, rootwads/stumps, birdhouses, and heron nesting areas.

c. Removing non-native plant species from the buffer area.
iv. For Type F and Type Np streams, buffer reductions under this Section shall be limited to twenty-five (25)% of the standard buffer width, or a minimum of twenty-five (25) feet, whichever is greater. For Type Ns streams, buffer reductions shall result in a buffer of no less than twenty-five (25) feet.

v. If the buffer reduction results in a buffer of less than twenty-five (25) feet, the applicant shall be responsible for attending an environmental stewardship Class Acceptable to the City.

I. Unless otherwise provided, the following restrictions shall apply to all development proposals within the vicinity of all City of Burien streams and stream buffers that include the introduction of livestock:

i. Implementation of a plan approved by the Director to protect and enhance the stream’s water quality; and

ii. Fencing located at the stream buffer edge. [Ord. 560 § 1 (Exh. A), 2012; Ord. 394 § 1, 2003]

19.40.360 Streams – Permitted Alterations.

1. Alteration to Streams.

A. Relocation or piping of any Type 1 or F2 stream in the City of Burien shall not be permitted unless undertaken for stream enhancement as described in BMC 19.40.360.1 (B). Relocation or piping of Type 3 or 4Np or Ns streams may take place only when it is part of an approved mitigation or restoration plan, and will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream.

B. Stream enhancement not associated with any other development proposal may be allowed if:

i. An approved design, implementation, maintenance, and monitoring plan prepared by a civil engineer and a qualified professional is approved by the Director;

ii. The plan is carried out under the direct supervision of a qualified professional pursuant to provisions contained in administrative rules;

iii. The enhancement is accomplished by a public agency with a mandate to do such work;
iv. The enhancement is limited to placement of rock weirs, log controls, spawning gravel, other specific salmonid improvements, and involves only light equipment or hand labor; and

v. Water quality in the stream is protected during construction.

C. A stream channel may be stabilized if:

i. Movement of the stream channel threatens existing residential or commercial structures, public facilities or improvements, unique natural resources or the only existing access to property; and

ii. The stabilization is done in compliance with the requirements of BMC 19.40.240 through 19.40.280.

2. Alterations to Stream Buffers. No alteration may occur in a stream buffer except as permitted below:

A. Buffer enhancements may be allowed pursuant to an approved mitigation plan as described in BMC 19.40.370.

B. Buffers and vegetation within the buffer shall be protected during construction by placement of a temporary fencing, on-site notice for construction crews of the presence of the stream, and implementation of appropriate erosion and sedimentation controls.

C. Utilities such as water, telephone, cable, electric, and natural gas may be allowed in Type Np or Type Ns stream buffers if:

i. The Director determines that no practical alternative location is available; and

ii. The utility corridor meets any additional requirements set forth by the Director and BMC 19.40.070(3) including, but not limited to, requirements for installation, replacement of vegetation and maintenance.

D. Sewer utility corridors may be allowed in stream buffers only if all of the following criteria are met:

i. The applicant demonstrates that sewer lines are necessary for gravity flow;
ii. The corridor is not located in a stream or stream buffer used by species listed as endangered or threatened by the state or federal government or containing critical or outstanding actual habitat for those species or heron rookeries or raptor nesting trees; 

iii. The corridor alignment including, but not limited to, any allowed maintenance roads, follows a path beyond a distance equal to seventy-five percent (75%) of the stream buffer width from the ordinary high water mark; 

iv. Corridor construction and maintenance protects the stream and stream buffer and is aligned to avoid cutting trees greater than twelve (12) inches in diameter at breast height, when possible, and pesticides, herbicides, and other hazardous substances are not used; 

v. An additional, contiguous and undisturbed buffer, equal in width to the proposed corridor including any allowed maintenance roads, is provided to protect the stream; 

vi. The corridor is revegetated with appropriate vegetation native to the City at preconstruction densities or greater immediately upon completion of construction or as soon thereafter as possible, and the sewer utility ensures that such vegetation survives; 

vii. Any additional corridor access for maintenance is provided, to the extent possible, at specific points rather than by a parallel road; and  

viii. The width of any necessary parallel road providing access for maintenance is as small as possible, but not greater than fifteen (15) feet, the road is maintained without the use of herbicides, pesticides or other hazardous substances and the location of the road is contiguous to the utility corridor on the side away from the stream; 

ix. Joint use of an approved sewer utility corridor by other utilities may be allowed. 

E. The following surface water management activities and facilities may be allowed in Type 3 Np and Type 4 Ns stream buffers only as follows: 

i. Surface water discharge to a Type 3 Np or Type 4 Ns stream from a detention facility, pre-settlement pond or other surface water management activity or facility may be allowed if discharge does not increase the rate of flow, change the fish habitat or decrease the water quality of the stream.
ii. A Type 3-Np or Type 4-Ns stream or stream buffer may be used for a regional retention/detention facility if:

a. A public agency and utility exception is granted pursuant to BMC 19.40.070.3;

b. All requirements of the King County Surface Water Design Manual, as adopted in BMC 13.10, are met;

c. The use will not alter the rating or the factors used in rating the stream; and

d. There are no significant adverse impacts to the stream.

F. Public and private trails may be allowed in stream buffers only if:

i. The trail surface shall not be made of impervious materials, except that public multipurpose trails may be made of impervious materials if:

a.) they meet all other requirements including water quality, and

b.) an impervious trail has less of an impact on the wetland and its buffer.

ii. The use of elevated boardwalks for trails is encouraged.

G. Stream crossings may be allowed and may encroach on the required stream buffer if the following conditions are met. Stream crossings include those for streets, trails, or private vehicular access easements.

i. There is no other feasible access to the property;

ii. All crossings use bridges or other construction techniques which do not disturb the stream bed or bank, except that bottomless culverts, fish friendly culverts or other appropriate methods demonstrated to provide fisheries protection may be used for Type 2F, 3-Np, or 4-Ns streams if the culvert design is in accordance with the WDFW manual Fish Passage Design at Road Culverts;

iii. All crossings are constructed during low stream flow periods and are timed to avoid stream disturbance during periods when use is critical to salmonids, construction timing must coincide with the WDFW in-water work windows;
iv. Crossings do not occur over salmonid spawning areas;

v. Bridge piers or abutments are not placed within the FEMA floodway or the ordinary high water mark;

vi. Crossings do not diminish the flood-carrying capacity of the stream;

vii. Underground utility crossings are laterally drilled and located at a depth of four (4) feet below the maximum depth of scour for the base flood predicted by a civil engineer licensed by the State of Washington; and

viii. Crossings are minimized and serve multiple purposes and properties whenever possible. [Ord. 394 § 1, 2003]

19.40.370 Streams – Additional Mitigation requirements.

1. General Requirements.

A. All impacts to streams that degrade the functions and values of the stream shall be avoided. If alteration to the stream is unavoidable, all adverse impacts to the stream and its buffer resulting from a development proposal or alteration shall be mitigated in accordance with an approved mitigation plan as described below.

AB. Restoration or mitigation shall be required when a stream or its buffer is altered in violation of law or without any specific permission or approval by the Director. In addition to the requirements of BMC 19.40.170, a mitigation plan for stream impacts shall demonstrate that:

i. The stream has been degraded and will not be further degraded by the mitigation activity;

ii. The mitigation will improve the water quality and fish and wildlife habitat of the stream;

iii. The mitigation will have no lasting significant adverse impact on any stream functions; and

iv. The mitigation will assist in stabilizing the stream channel.

BC. Mitigation in addition to the requirements of BMC 19.40.170, mitigation minimum requirements shall include:
i. All work shall be carried out under the direct supervision of a qualified professional;

ii. *Engineering* analysis as described in BMC 13.10 shall be performed to determine hydrologic conditions;

iii. The natural channel dimensions shall be replicated including its depth, width, length and gradient at the original location, and the original horizontal alignment (meander lengths) shall be replaced;

iv. The bottom shall be restored with identical or similar materials;

v. The bank and *buffer* configuration shall be restored to its original condition;

vi. The channel, bank and *buffer* areas shall be replanted with vegetation *native* to Western Washington which replicates the original vegetation in *species*, sizes and densities; and

vii. The original biologic functions of the *stream* shall be recreated.

2. Mitigation Location. *Mitigation* of adverse impacts to *riparian habitat* areas or *streams* shall result in equivalent *functions and values* on a per function basis, be located as near the *alteration* as feasible, and be located in the same sub drainage basin as the habitat impacted.

3. Mitigation Schedule.

   A. A *mitigation monitoring* schedule shall be established for a period of five (5) years.

   B. An "as-built" *mitigation* report shall be submitted to the City within one (1) month of *mitigation* installation. Acceptance of the as-built report by the City will be made after a site investigation is performed by the City, and all changes requested by the City are completed.

   C. *Mitigation* monitoring reports shall be submitted annually to the City and shall show that the mitigated area is meeting performance standards and goals set forth in the *mitigation* plan.

4. Financial Surety. A performance bond, or other approved financial surety, is required before building and *clearing* and grading permits are issued. The purpose of the financial surety is to hold an applicant accountable for implementing the mitigation, monitoring, and contingency plans. The release of financial surety is contingent
on satisfactory completion by the applicant of the proposed construction, mitigation, monitoring, and contingency plans as determined by the Director. [Ord. 394 § 1, 2003]

**FISH AND WILDLIFE HABITAT CONSERVATION AREAS**

**19.40.380 Fish and Wildlife Habitat Conservation Areas - Designation and Classification.**

1. Fish and wildlife habitat conservation areas are those habitat areas that meet any of the following criteria:

   A. Areas with which endangered, threatened, and sensitive species listed by the federal government or the State of Washington have a primary association;
   
   B. All public and private tidelands or bedlands suitable for commercial or recreational shellfish harvest;
   
   C. Kelp and eel-grass beds identified by the Washington Department of Natural Resources;
   
   D. Herring and smelt spawning areas as outlined in Chapter 220-110 WAC and the Puget Sound Environmental Atlas as presently constituted or as may be subsequently amended;
   
   E. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat;
   
   F. Bald eagle habitat protected pursuant to the Washington State Federal Bald and Golden Eagle Protection Act (WAC 232-12-292); or
   
   G. Heron rookeries or active nesting trees; or
   
   H. Waters of the state, regulated under Section 19.40.340, Streams, of this Chapter.

2. The approximate location and extent of known fish and wildlife habitat conservation areas are shown on the Critical Areas Maps adopted by the City, as described in BMC 19.40.040(2)(A) and as most recently updated. The following maps are to be used as a guide for the City, but do not provide a final critical area designation:

   A. Washington State Department of Fish and Wildlife Priority Habitat and Species Maps;
B. Anadromous and resident salmonid distribution maps contained in the Habitat Limiting Factors Reports published by the Washington Conservation Commission; and

C. Washington State Digital Coastal Atlas and Coastal Zone Management Program. [Ord. 394 § 1, 2003]

19.40.390 Fish and Wildlife Habitat Conservation Areas Performance-Development Standards.

1. The Director shall require the establishment of buffer areas for activities in, or adjacent to, fish and wildlife habitat conservation areas, when needed to protect fish and wildlife habitat conservation areas. Buffers shall:

   A. Consist of an undisturbed area of native vegetation, or areas identified for restoration, established to protect the integrity, functions and values of the affected habitat;

   B. Reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted on the site and on adjacent sites; and

   C. Be consistent with the management recommendations issued by the state Department of Fish and Wildlife.

2. When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Larger buffers may be required and activities may be further restricted during the specified season.

3. A Habitat Management Plan may be required by the Director when the critical area review of a development proposal determines that the proposed activity will have an affect on habitat conservation areas.

   A. All Habitat Management Plans shall be prepared by a qualified professional in consultation with the state Department of Fish and Wildlife. Habitat Management Plans for critical species listed as endangered or threatened shall be approved by the City following review and approval by the Department of Fish and Wildlife.

   B. Habitat Management Plan Content Requirements. Based on the characteristics of the site and information submitted by the applicant, the Director may require that all or a portion of the following be included in a Habitat Management Plan:

      i. A map drawn to scale or survey showing the following information:
a. All lakes, ponds, streams, and wetlands on, or adjacent to the subject property, including the name (if named), ordinary high water mark of each, and the stream type or wetland class;

b. The location and description of the fish and wildlife habitat conservation areas on the subject property, as well as any potential fish and wildlife habitat conservation areas within 200 feet of the subject property as shown on the City’s adopted Critical Areas Maps; and

c. The location of any observed evidence of use by a listed species.

ii. An analysis of how the proposed development activities will affect the fish and wildlife habitat conservation areas and listed species:

iii. The Habitat Management Plan should also address the following mitigation measures:

a. Reduction or limitation of development activities within the fish and wildlife habitat conservation areas;

b. Use of low impact development techniques or clustering of development on the subject property to locate structures in a manner that preserves and minimizes adverse effects to habitat areas;

c. Seasonal restrictions on construction activities on the subject property;

d. Preservation or retention of habitat and vegetation on the subject property in contiguous blocks or with connection to other habitats that have a primary association with listed species;

e. Establishment of a buffer around the fish and wildlife habitat conservation areas;

f. Limitation of access to the fish and wildlife habitat conservation areas and buffer; and

    g. The creation or restoration of habitat area for the listed species.
4. Non-indigenous species shall not be introduced. No plant, wildlife, or fish species not indigenous to the Puget Sound region shall be introduced into a fish and wildlife habitat conservation areas unless authorized by a state or federal permit or approval. [Ord. 394 § 1, 2003]

19.40.400 Fish and Wildlife Habitat Conservation Areas – Permitted Alterations.

1. Fish and wildlife habitat conservation areas or their buffers may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade the functions and values of the habitat. All new structures and land alterations shall be prohibited from habitat conservation areas except in accordance with this Chapter.

2. Approvals of activities may be conditioned. The Director may condition approvals of activities allowed adjacent to fish and wildlife habitat conservation areas as necessary, to minimize or mitigate any potential adverse effects. Conditions may include, but are not limited to, the following:

   A. Establishment of buffer zones;

   B. Preservation of vegetation with which listed species have a primary association;

   C. Limitation of access to the habitat area, including fencing to deter unauthorized access;

   D. Seasonal restriction of construction activities;

   E. Requirement of mitigation for activities having an effect on fish and wildlife habitat conservation areas; and

   F. Requirement of a performance bond, when necessary, to ensure completion and successful implementation of proposed mitigation (BMC 19.40.180).

3. Low impact uses and activities which are consistent with the purpose and function of the habitat buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the habitat area. Any impacts from these uses and activities shall be mitigated. Examples of uses and activities which may be permitted by the Director include:

   A. Pervious trails;

   B. Viewing platforms;

   C. Storm water management features such as grass-lined swales, and
D. Utilities and utility easements.

4. Mitigation shall result in contiguous habitat. Mitigation sites shall be located to achieve contiguous wildlife habitat in accordance with a mitigation plan that is part of an approved habitat Management Plan to minimize the isolating effects of development on habitat areas. Mitigation of aquatic habitat must be located within the same aquatic ecosystem or watershed as the area disturbed.

5. Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic functions, and in the case of streams shall include mitigation for adverse impacts upstream and/or downstream of the development proposal site. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis. [Ord. 394 § 1, 2003]

19.40.410 Fish and Wildlife Habitat Conservation Areas – Specific Habitats

1. Endangered, threatened, and sensitive species habitat.

   A. No alteration shall be allowed within a fish and wildlife habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association without Federal and State approval.

   B. Whenever activities are proposed adjacent to a fish and wildlife habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a Habitat Management Plan prepared by a qualified professional (BMP 19.40.390) and approved by the City.

   C. Bald eagle habitat shall be protected pursuant to the Federal Washington State Bald Eagle Protection Rules Act(WAC 232-12-292). Whenever activities are proposed within 660 feet of adjacent to a verified nest territory or communal roost, a Habitat Management Plan shall be developed by a qualified professional. Activities are adjacent to bald eagle sites when they are within eight hundred (800) feet of an eagle nest, or within a quarter mile (1,320 feet) if in a shoreline foraging area. The applicant shall verify the location of eagle management areas for each proposed activity consult with the U.S. Fish and Wildlife Service to determine if a permit is required. Prior to issuance of the building permit by the City, the applicant shall provide written approval of the Habitat Management Plan by the Department of Fish and Wildlife.

2. Aquatic Habitats.
A. All activities, uses, and alterations proposed to be located in water bodies used by salmonid fish species or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of salmonid habitat.

B. Filling of aquatic habitats, when authorized by the City of Burien’s Shoreline Management Master Program, shall not adversely impact salmonids or their habitat or shall mitigate any unavoidable impacts, and shall only be allowed for a water-dependent activity. [Ord. 394 § 1, 2003]

CRITICAL AQUIFER RECHARGE AREAS

19.40.420 Critical aquifer recharge areas – Designation and Classification.

1. Purpose and Intent. The purpose of this section is to protect critical aquifer recharge areas from degradation or depletion resulting from new and redeveloping land use activities. Due to the potential vulnerability of groundwater underlying certain aquifer recharge areas to contamination and the importance of such groundwater as sources of public water supply, it is the intent of this section to safeguard groundwater resources by mitigating or precluding future discharges of contaminants from new development activities and redevelopment activities.

2. Applicability.

A. General. The provisions of this section shall apply to regulated facilities as defined in this ordinance within or adjacent to those portions of the City of Burien designated as critical aquifer recharge areas on the City of Burien Critical Areas Map. Regulated facilities are those commercial, industrial and home occupation uses that:

i. Process or handle hazardous materials in regulated quantities; and

ii. Treat and store regulated quantities of hazardous materials.

B. The City of Burien shall administer the provisions of this Chapter and shall determine appropriate mitigation measures.

3. Classification.
A. Criteria. Any site located within the City of Burien and within or adjacent to the boundaries of any critical aquifer recharge area is subject to the provisions of this Chapter.

B. Sources. The following sources were used to identify the aquifer recharge areas that are depicted on the Critical Areas Map.


1. Prohibited activities and land uses – critical aquifer recharge areas. The following land uses and activities for new development or redevelopment shall be prohibited within or adjacent to critical aquifer recharge areas:

   A. Solid waste landfills;

   B. Disposal of hazardous or dangerous wastes;

   C. All underground injection wells as defined in Chapter 173-218 WAC;

   D. Mining

      i. Metals and hard rock mining.

      ii. Sand and gravel mining is prohibited from critical aquifer recharge areas determined to be highly susceptible or vulnerable.

   E. Wood Treatment Facilities. Wood treatment facilities that allow any portion of the treatment process to occur over permeable surfaces (both natural and manmade);
F. Storage, processing, or disposal of radioactive substances. Facilities that store, process, or dispose of radioactive substances;

G. Dry cleaning establishments using the solvent perchloroethylene; and

H. Other.

i. Activities that would significantly reduce the recharge to aquifers currently or potentially used as a potable water source;

ii. Activities that would significantly reduce the recharge to aquifers that are a source of significant baseflow to a regulated stream;

iii. Activities that are not connected to an available sanitary sewer system are prohibited from critical aquifer recharge areas associated with sole source aquifers.

2. Hazardous materials questionnaire required. Applications for development or redevelopment of regulated facilities within the boundaries of critical aquifer recharge areas shall be accompanied by a completed hazardous materials questionnaire to determine the regulatory status of the applicant facility. The Director shall review the hazardous materials questionnaire to determine whether the facility is regulated under this ordinance. If it is determined that the applicant is a regulated facility that processes, handles, treats, and/or stores hazardous substances as defined by this ordinance, the applicant facility must submit a Critical Areas Report pursuant to this Section to the City.

3. Critical area review for critical aquifer recharge areas required.

   A. After reviewing the hazardous materials questionnaire, the Director may require a critical area review pursuant to BMC 19.40.090 through 19.40.150.

   B. Notification to adjacent water supply systems. The City of Burien shall provide written notice to the operators of neighboring water supply systems in whose wellhead protection area the proposed regulated activity is located. The City of Burien shall consider comments received from the water system when reviewing the hydrogeologic assessment.

4. Appeal of determination.
A. The Director's determination that the facility is a regulated facility or within a critical aquifer recharge area may be appealed according to, and as part of the appeal procedure for the underlying permit or approval involved. The appeal must be accompanied with a hydrogeologic assessment to assess the facility's potential impact on the aquifer.

B. Prepared by a qualified professional. The hydrogeologic assessment should be prepared by a licensed engineer, engineering geologist, geologist, or hydrogeologist registered in the State of Washington and approved by the City of Burien.

C. Hydrogeologic assessment report. A hydrogeologic assessment shall include, but is not limited to, the following:

   i. Information sources;

   ii. Geologic setting--include well logs or borings used to characterize the area;

   iii. Background water quality;

   iv. Groundwater elevations;

   v. Location/depth to perched water tables;

   vi. Recharge potential of the proposed development site (permeability/transmissivity);

   vii. Groundwater flow direction and gradient;

   viii. Currently available data on wells located within 1,000 feet of site;

   ix. Currently available data on any spring within 1,000 feet of site;

   x. Surface water location and recharge potential;

   xi. Water source supply to site;

   xii. Any sampling schedules necessary;

   xiii. Discussion of the effects of the proposed project on the groundwater resource;
xiv. Description of potential mitigation measures, should it be determined that the
proposed project may have an adverse impact on groundwater resources; and

xv. Other information as required by the City of Burien.

D. If the hydrogeologic assessment determines that the facility will have no effect on
groundwater, the facility is exempt from the performance-development standards requirements

E. If the hydrogeologic assessment determines that the facility could have an effect on the
groundwater resource, the City shall require implementation of applicable development

5. Performance-Development standards — General requirements

A. Activities may only be permitted in a critical aquifer recharge area if the applicant can show
that the proposed activity will not cause contaminants to enter the aquifer and that the proposed
activity will not adversely effect the recharging of the aquifer.

B. The proposed activity must comply with the water source protection requirements and
recommendations of the federal Environmental Protection Agency, and state Department of
Health, and the King County Health District.

C. Storage tank permits. The City of Burien specifically regulates and authorizes permits for
underground storage tanks, pursuant to the Uniform Fire Code (Article 79) International Fire
Code and this Chapter. The Washington Department of Ecology also regulates and authorizes
permits for underground storage tanks (WAC 173-360). The local Fire District regulates and
authorizes permits for the removal of underground storage tanks (UFC 7902).

D. Owners and operators of facilities with existing underground storage tanks that are located
within an critical aquifer recharge area shall comply with all release detection requirements as
specified in WAC 173-360.

E. Spreading or injection of reclaimed water. Water reuse projects for reclaimed water must be
in accordance with the adopted water or sewer comprehensive plans that have been approved
by the departments of Ecology and Health.
i. Surface spreading must meet the ground water recharge criteria given in Chapter 90.46.080 RCW and Chapter 90.46.010(10).

ii. Direct injection must be in accordance with the standards developed by authority of Chapter 90.46.042 RCW.

F. Storm water treatment and control as per the King County Surface Water Design Manual.

6. Development standards for regulated facilities within critical aquifer recharge areas. The following mitigation measures, as applicable, are required for development of regulated facilities within a critical aquifer recharge area:

A. Floor drains shall not be allowed to drain to the storm water system and must be designed and installed to meet the Uniform Plumbing Code (UPC) Section 303.

B. If any roof venting carries contaminants, then the portion of the roof draining this area must go through pretreatment pursuant to UPC Section 304(b).

C. All nonresidential vehicle washing must be self contained or be discharged to a sanitary sewer system, if approved by the sewer utility, and is subject to UPC Sections 708 and 711.

D. Utilize Integrated Pest Management (IPM) practices for pest control and Best Management Practices (BMPs) for the use of fertilizers as described by the King County Local Hazardous Waste Management Program.

E. Facilities installing new underground tanks. All new underground storage facilities used or to be used for the underground storage of hazardous substances or hazardous wastes shall meet the requirements of WAC 173-360 and be designed and constructed so as to:

   i. Prevent releases due to corrosion or structural failure for the operational life of the tank;

   ii. Be protected against corrosion, constructed of non-corrosive material, steel clad with a non-corrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substance; and

   iii. Use material in the construction or lining of the tank which is compatible with the substance to be stored.
F. Aboveground tanks

i. No new aboveground storage facility or part thereof shall be fabricated, constructed, installed, used, or maintained in any manner which may allow the release of a hazardous substance to the ground, or groundwater of the City of Burien within an critical aquifer recharge area.

ii. For a tank that will contain a hazardous substance, no new aboveground tank or part thereof shall be fabricated, constructed, installed, used, or maintained without having constructed around and under it an impervious containment area enclosing or underlying the tank or part thereof.

iii. A new aboveground tank that will contain a hazardous substance will require a secondary containment system either built into the tank structure or a dike system built outside the tank for all tanks located within a critical aquifer recharge area. The secondary containment system or dike system must be designed and constructed to contain the material stored in the tank(s), have a capacity of at least 110 percent of the primary tank and conform to the requirements of UFC Chapter 7902.2.

G. Vehicle repair and servicing

i. Commercial vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur.

ii. No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the state Department of Ecology prior to commencement of the proposed activity.

H. Additional protective measures may be required if deemed necessary by the City of Burien.

I. State and federal regulations--The uses listed below shall be conditioned as necessary to protect critical aquifer recharge areas in accordance with the applicable state and federal regulations.
### Statutes, Regulations, and Guidance Pertaining to Ground Water Impacting Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Statute – Regulation – Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Above Ground Storage Tanks</strong></td>
<td>Chapter 173-303 -640 WAC</td>
</tr>
<tr>
<td><strong>Animal Feedlots</strong></td>
<td>Chapter <a href="#">173-216</a> WAC, Chapter <a href="#">173-220</a> WAC</td>
</tr>
<tr>
<td><strong>Automobile Washers</strong></td>
<td>Chapter <a href="#">173-216</a> WAC, Best Management Practices for Vehicle and Equipment Discharges (WDOE WQ-R-95-56)</td>
</tr>
<tr>
<td><strong>Below Ground Storage Tanks</strong></td>
<td>Chapter <a href="#">173-360</a> WAC</td>
</tr>
<tr>
<td><strong>Chemical Treatment Storage and Disposal Facilities</strong></td>
<td>Chapter <a href="#">173-303-182</a> WAC</td>
</tr>
<tr>
<td><strong>Hazardous Waste Generator (Boat Repair Shops, Biological Research Facility, Dry Cleaners, Furniture Stripping, Motor Vehicle Service Garages, Photographic Processing, Printing and Publishing Shops, etc.)</strong></td>
<td>Chapter <a href="#">173-303</a> WAC</td>
</tr>
<tr>
<td><strong>Injection wells</strong></td>
<td>Federal 40 CFR Parts 144 and 146, Chapter <a href="#">173-218</a> WAC</td>
</tr>
<tr>
<td><strong>Junk Yards and Salvage Yards</strong></td>
<td>Chapter <a href="#">173-304</a> WAC, Best Management Practices to Prevent Stormwater Pollution at Vehicles Recycler Facilities (WDOE 94-146)</td>
</tr>
<tr>
<td><strong>Oil and Gas Drilling</strong></td>
<td>Chapter <a href="#">332-12-450</a> WAC, WAC, Chapter <a href="#">173-218</a> WAC</td>
</tr>
<tr>
<td><strong>On-Site Sewage Systems (Large Scale)</strong></td>
<td>Chapter <a href="#">173-240</a> WAC</td>
</tr>
<tr>
<td><strong>On-Site Sewage Systems (&lt; 14,500 gal/day)</strong></td>
<td>Chapter <a href="#">246-272</a> WAC, Local Health Ordinances</td>
</tr>
<tr>
<td>Activity</td>
<td>Statute – Regulation – Guidance</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------------------------------------------------------------------</td>
</tr>
<tr>
<td>Pesticide Storage and Use</td>
<td>Chapter 15.54 RCW, Chapter 17.21 RCW</td>
</tr>
<tr>
<td>Solid Waste Handling and Recycling Facilities</td>
<td>Chapter 173-304 WAC</td>
</tr>
<tr>
<td>Surface Mining</td>
<td>Chapter 332-18-015 WAC</td>
</tr>
</tbody>
</table>
19.10 Definitions

19.10.140.5 Ecoregion
- Ecoregions are defined using EPA’s Ecoregions of the Pacific Northwest Document No. 600/3-86/033 July 1986 by Omernik and Gallant. The term ecoregions is used to define a mapped classification of the ecosystem regions of the United States. Ecoregions are generally considered to be regions of relative homogeneity in ecological systems or in relationships between organisms and their environments. In general, ecoregions have a distinct composition and distribution of plant and animal species.

19.10.182 Frequently flooded area
- Frequently flooded areas are lands in the flood plain subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to high groundwater. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands, and areas where high groundwater forms ponds on the ground surface.

19.10.545.5 Type F Water
- Type F Water means segments of natural waters other than Type S Waters, which are within the bankfull widths of defined channels and periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of 0.5 acre or greater at seasonal low water and which in any case contain fish habitat or are described by one of the following four categories:

(a) Waters, which are diverted for domestic use by more than 10 residential or camping units or by a public accommodation facility licensed to serve more than 10 persons, where such diversion is determined by the department to be a valid appropriation of water and the only practical water source for such users. Such waters shall be considered to be Type F Water upstream from the point of such diversion for 1,500 feet or until the drainage area is reduced by 50 percent, whichever is less;

(b) Waters, which are diverted for use by federal, state, tribal or private fish hatcheries. Such waters shall be considered Type F Water upstream from the point of diversion for 1,500 feet, including tributaries if highly significant for protection of downstream water quality. The department may allow additional harvest beyond the requirements of Type F Water designation provided the department determines after a landowner-requested on-site assessment by the department of fish and wildlife, department of ecology, the affected tribes and interested parties that:

(i) The management practices proposed by the landowner will adequately protect water quality for the fish hatchery; and

(ii) Such additional harvest meets the requirements of the water type designation that would apply in the absence of the hatchery;

(c) Waters, which are within a federal, state, local, or private campground having more than 10 camping units: Provided, That the water shall not be considered to enter a campground until it reaches the boundary of the park lands available for public use and comes within 100 feet of a camping unit, trail or other park improvement;

(d) Riverine ponds, wall-based channels, and other channel features that are used by fish for off-channel habitat. These areas are critical to the maintenance of optimum survival of fish. This habitat shall be identified based on the following criteria:

(i) The site must be connected to a fish habitat stream and accessible during some period of the year; and
19.10.546 Type Np Water
- Type Np Water means all segments of natural waters within the bankfull width of defined channels that are perennial nonfish habitat streams. Perennial streams are flowing waters that do not go dry any time of a year of normal rainfall and include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow.

19.10.546.3 Type Ns Water
- Type Ns Water means all segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np Waters. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is a Type Np Water. Ns Waters must be physically connected by an above-ground channel system to Type S, F, or Np Waters.

19.10.546.5 Type S Water
- 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.

19.10.580 Wetlands
- Wetlands are those areas in the City of Burien, designated in accordance with the Washington State Wetland Identification and Delineation Manual, as required by RCW 36.70A.175 (Ecology Publication #96-041). Wetlands are defined as those areas that are inundated or saturated, by ground or surface water at a frequency and duration sufficient to support, and under normal circumstances to support, a prevalence of vegetation typically adopted 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 non-wetland 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 non-wetland areas to mitigate the conversion of wetlands. For identifying and delineating a wetland, local government shall use the Washington State Wetland Identification and Delineation Manual-approved federal wetland delineation manual and applicable regional supplements.
<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic ($)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E</td>
<td>Header</td>
<td>1</td>
<td>Purposes and <em>General Administrative Provisions</em></td>
<td>To be distinguished from several other sections that contain “general requirements” or “general standards.”</td>
</tr>
<tr>
<td>2</td>
<td>O</td>
<td>Document outline</td>
<td>1-3</td>
<td><em>See document for changes.</em></td>
<td>Edited to reflect revisions and reorganizations throughout document. Individual changes will be presented by section in this table.</td>
</tr>
</tbody>
</table>
| 3  | O    | User guide (19.40.010) | 3   | This chapter establishes regulations pertaining to the development within or adjacent to critical areas. Many areas of Burien have been or may become classified as critical areas by the City or other public agencies. The following critical areas are found in the City of Burien and regulated under this Chapter: *Ord. 376 § 1, 2003*  
A. Frequently flooded areas (19.40.240);  
B. Geologically hazardous areas (19.40.280), including:  
   i. Erosion hazard areas,  
   ii. Landslide hazard areas, and  
   iii. Seismic hazard areas;  
C. Wetlands (19.40.300);  
D. Streams (19.40.340);  
E. Fish and wildlife habitat conservation areas (19.40.380); and  
F. Critical aquifer recharge areas (19.40.420). *Ord. 376 § 1, 2003* | Added to enhance usability by making it clear at the beginning of the document what critical areas are regulated under this Chapter. |
| 4  | E    | Purposes and Goals (19.040.020) | 4   | Convert introductory text to numbered bullets; adjust subsequent bullets accordingly.  
1. The City finds that critical areas provide…  
2. This chapter is to be administered…  
3. Purposes.  
4. Goals. | In general, we recommend avoiding unnumbered “preambles” in sections that contain regulations. Their applicability is not always clear. |
<p>| 5  | E    | Purposes and Goals (19.040.020(1)) | 4   | The beneficial functions and values of critical areas include… | Editorial fix. |
| 6  | CA   | Purposes and Goals: Purposes (19.040.020(3)) | 4   | B. Designate, classify, and regulate the use of critical areas in accordance with the Growth Management Act… | For clarity: under the GMA, critical areas regulations must designate and protect the functions and values of critical areas. |
| 7  | E    | Applicability (19.40.040) | 6   | B. Actual site conditions. Regardless of whether a critical area is shown on the critical areas map Critical Areas Map <em>map</em> , the actual presence… | Internal consistency – Critical Areas Map is capitalized when it is defined, and elsewhere it is referred to. |</p>
<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic ($)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>CP</td>
<td>Applicability: Adjacency (19.40.040(3))</td>
<td>6</td>
<td>3. Adjacency. For the purposes of this Chapter, land is “adjacent” to a critical area if it is: A. Land that contains the required critical area buffer width and building setback; B. Land within one hundred (100) feet upland from a stream, wetland, or lake; C. Land within three hundred (300) feet of a wetland;</td>
<td>Under the GMA, critical areas code should state that review is required whenever an impact is likely. Throughout the code, this is accomplished by regulating development not just within, but adjacent to critical areas. This section defines what “adjacent” means for that purpose. Changes reflect updated buffer schemes for wetlands. Distance should reflect the highest buffer width (which, regardless of which option the City chooses, will be 300’ for wetlands).</td>
</tr>
<tr>
<td>9</td>
<td>CP</td>
<td>Applicability: Adjacency (19.40.040(3))</td>
<td>6</td>
<td>DC. Land within 800 feet of a bald eagle nest; EQ. Land within two hundred (200) feet from a designated critical aquifer recharge area; or FE. Land within the floodway or floodplain.</td>
<td>Current USFWS recommendations would reduce buffer to 660 feet for activity visible from a nest and 330 feet for activity not visible from nest. For purposes of adjacency, default to larger buffer. Other changes reflect edits for numbering and formatting consistency.</td>
</tr>
<tr>
<td>10</td>
<td>E</td>
<td>Protection of critical areas (19.40.050)</td>
<td>5</td>
<td>All actions and developments shall be designated and constructed in accordance with mitigation sequencing (BMC 19.40.170) to avoid, minimize, and restore all adverse impacts.</td>
<td>Internal references increase code usability.</td>
</tr>
<tr>
<td>11</td>
<td>CP</td>
<td>Best available science (19.40.060)</td>
<td>7</td>
<td>Addition of third bullet: 3. Absence of valid scientific information. Where there is an absence of valid scientific information or incomplete scientific information relating to a critical area leading to uncertainty about the risk to critical area function of permitting an alteration of or impact to the critical area, the Director shall take a “precautionary approach,” that strictly limits development and land use activities until the uncertainty is sufficiently resolved.</td>
<td>Recommended per Commerce guidance to cover uncertain situations. Not required.</td>
</tr>
<tr>
<td>12</td>
<td>CA</td>
<td>Exemptions and exceptions (19.40.070)</td>
<td>7</td>
<td>Addition of first bullet, and renumbering of subsequent bullets: 1. Exemption request and review process. Exemptions shall be reviewed in conjunction with an associated approval such as a land use decision or the issuance of a construction permit. Absent associated permits or approvals, the proponent of the activity may submit a written request for exemption to the Director that describes the activity and states the exemption in this Section that applies. The request shall be processed as an administrative decision. If the exemption is approved, it shall be placed on file with the department. If the exemption is denied, the proponent may continue in the review process and shall be subject to the requirements of this Chapter. The Director may add conditions for exemption to ensure the level of activity remains consistent with the provisions of this Chapter.</td>
<td>Recommended per Commerce guidance to clarify exemption process and ensure exempt activities are consistent with the CAO. Reviewed for alignment with City administrative processes.</td>
</tr>
<tr>
<td>13</td>
<td>O</td>
<td>Exemptions and exceptions (19.40.070) and Geologically</td>
<td>9, 33</td>
<td>Move bullets J and K of 19.40.070(3) to bullet 4 (A and B) of 19.40.280 Geologically hazardous areas - Designation, with the following introductory text:</td>
<td>19.40.070 lists activities and uses that are exempt from critical areas review. This text refers to areas exempt from designation as critical areas (specifically, geologically hazardous areas) and are therefore more logically located within that section of the code.</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>6</td>
<td>E</td>
<td>hazardous areas – Designation (19.40.285)</td>
<td>6</td>
<td>The following areas are exempt from designation as geologically hazardous areas:</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>E</td>
<td>A. Slope exemptions: The following slopes are exempt, unless the slope is part of another critical area or required buffer:</td>
<td>7</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>E</td>
<td>Last bullet of 19.40.070(3) changed from L to J as a result.</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>E</td>
<td>Critical area review (19.40.090)</td>
<td>12</td>
<td>2. As part of its review of a critical area review, the City shall:</td>
<td>The term “provisions” covers all regulatory measures in the Chapter. For the purpose of critical area review criteria, this broader term is appropriate.</td>
</tr>
<tr>
<td>9</td>
<td>E</td>
<td>D. Determine whether the development proposal conforms to the purposes and performance standards provisions of this Chapter, including the criteria in BMC 19.40.100;</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>E</td>
<td>Review criteria (19.40.100)</td>
<td>14</td>
<td>D. Any alterations permitted to the critical area or its required buffer are mitigated in accordance with the mitigation requirements of this chapter (BMC 19.40.170) and the critical area study (BMC 19.40.120); and...</td>
<td>Internal references added for usability.</td>
</tr>
<tr>
<td>16</td>
<td>CA</td>
<td>Critical area study requirements (19.40.120)</td>
<td>14</td>
<td>2. Prepared by qualified professional. A required critical area study shall be prepared by a person with experience and training in the scientific discipline appropriate for the relevant critical area subject in accordance with WAC 365-195-905(4). A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology or related field, and two years of related work experience. The City maintains a roster of qualified professionals.</td>
<td>Mention City’s roster so that applicants will know to approach City for list of qualified professionals.</td>
</tr>
<tr>
<td>17</td>
<td>E</td>
<td>Critical area study requirements (19.40.120)</td>
<td>16</td>
<td>A. A qualified professional for wetlands must be a Professional Wetland Scientist with at least two years of full-time work experience as a wetlands professional, including delineating wetlands using the state or federal manuals; preparing wetland reports; conducting function assessments; and developing and implementing mitigation plans.</td>
<td>Criteria for qualified wetlands professional added per Ecology comment received 3/10/15.</td>
</tr>
<tr>
<td>18</td>
<td>E</td>
<td>Critical area study requirements (19.40.120)</td>
<td>16</td>
<td>B. A qualified professional for Fish and Wildlife Habitat Conservation Areas or wetlands must have a degree in biology…</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>E</td>
<td>GENERAL CRITICAL AREA DEVELOPMENT REQUIREMENTS</td>
<td>18</td>
<td>GENERAL CRITICAL AREA DEVELOPMENT STANDARDS</td>
<td>Most of the subsections that follow do not focus on development standards. Several subsections provide permit requirements and/or types of conditions for approval that may be applied, e.g. mitigation requirements; bonds).</td>
</tr>
</tbody>
</table>
### Critical Areas Ordinance

**Summary of Changes**

Planning Commission Draft 4/16/2015

---

<table>
<thead>
<tr>
<th>Type</th>
<th>Topic ($)</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STANDARDS</strong> (Section header)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Revised order offers a more logical flow between general application standards, development standards, more specific development standards, and requirements for protection following or instead of development.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mitigation section (19.40.170) renamed to better reflect revised content (see below).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>To fully protect critical areas functions and values per GMA, code needs to ensure that impacts are mitigated. Both Commerce and Ecology recommend use of a mitigation sequence. Proposed edits to this section make that sequence more explicitly defined, and also make it clear that mitigation will be required when there are adverse impacts.</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>CP</td>
<td>Mitigation, maintenance, and monitoring (19.40.170)</td>
<td>1. The Director may require the applicant to provide, at the applicant’s expense, mitigation, maintenance and monitoring measures to protect critical areas and buffers. A written record describing the results of any mitigation, maintenance or monitoring measures shall be submitted to the Director for review and further action, if needed. The applicant shall avoid all impacts that degrade the functions and values of critical areas and buffers. Unless otherwise provided in this Chapter, if impacts to critical areas or buffers are unavoidable, all adverse impacts resulting from the proposed alteration, construction, development, or activity shall be mitigated, at the applicant’s expense, using the best available science in accordance with an approved critical area study.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Where monitoring reveals a significant deviation from predicted impacts or a failure of mitigation or maintenance measures, the applicant shall be responsible for appropriate corrective action which, when approved, shall be subject to further monitoring. (Ord. 394 § 1, 2003; Ord. 376 § 1, 2002)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>To fully protect critical areas functions and values per GMA, code needs to ensure that impacts are mitigated. Both Commerce and Ecology recommend use of a mitigation sequence. Proposed edits to this section make that sequence more explicitly defined, and also make it clear that mitigation will be required when there are adverse impacts. Specifying mitigation plan (including monitoring) requirements here necessarily fills the gaps for those critical areas without specific requirements sections (FWHCAs, FFAs, CARAs), and lays out the requirements in a way that shows the user what will be asked of him/her, but still allows plenty of flexibility for the City.</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>2003</td>
<td>Mitigation sequencing. Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas. When an alteration to a critical area is proposed, applicants shall follow the sequential order of preference below. Mitigation for individual actions may include a combination of these measures: A. Avoiding the impact altogether by not taking a certain action or parts of an action; B. Minimizing the impact by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts; C. Rectifying the impacts by repairing, rehabilitating, or restoring the affected environment; D. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; E. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or F. Monitoring the impact area of the required mitigation area and taking remedial action when necessary.</td>
<td>3. When mitigation is required, the applicant shall submit for approval by the City a mitigation plan as part of the critical areas study (BMC 19.40.120). The mitigation plan: A. shall be prepared by a qualified professional; B. shall demonstrate that the proposed mitigation will adequately offset all adverse impacts to critical areas that may result from the proposed alteration, construction, development, or activity; and C. shall include a monitoring, maintenance, and contingency plan, including measurable performance standards that evaluate whether or not the mitigation project has fulfilled the requirements of this Chapter.</td>
<td>4. Mitigation shall not be implemented until after the City approval of a critical areas study that includes a mitigation plan, and mitigation shall be in accordance with the provisions of the approved critical areas study.</td>
</tr>
<tr>
<td>22</td>
<td>CA</td>
<td>Mitigation, maintenance, and monitoring (19.40.170)</td>
<td>19</td>
</tr>
<tr>
<td>23</td>
<td>CP</td>
<td>General development</td>
<td>20</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
<td>---------------------------------------------------------------------------</td>
<td>-----</td>
</tr>
</tbody>
</table>
|    |      | standards                                                                 | 6   | critical areas, if no buffers are required, as required in the critical area study. [Ord. 394 § 1, 2003; Ord. 376 § 1, 2003] The following may be allowed in the building setback area:  
A. Landscaping;  
B. Uncovered decks;  
C. Building overhangs which do not extend more than eighteen (18) inches into the area;  
D. Pervious unroofed stairways and steps; and  
E. Impervious ground surfaces, such as driveways and patios, provided that such improvements may be subject to water quality regulations as adopted in the City's stormwater management regulations (BMC 13.10). |
|    |      | critical area markers and signs                                           | 24  | requirement for all critical areas.  
From the Gap Analysis: Permanent critical area signs should be required. Sign spacing and language is recommended, and 50’ spacing is commonly used.  
Inserted language is adapted from the City of Sammamish Municipal Code 21A. 50.170. |

| 25 | E    | Permanent protection of critical area                                    | 23  | As a condition of approval of a proposed activity within a critical area or its buffer, the City may require that critical areas and their buffers, except for critical aquifer  
    |      | review                                                                  |     | Edited for readability and clarity. Removal of references to TDR per staff guidance. TDR process may be developed in the future, but it is not appropriate for code to mention. |
**Summary of Changes**

**CRITICAL AREAS ORDINANCE**

**Planning Commission DRAFT 4/16/2015**

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic ($)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>CA</td>
<td>recharge areas and seismic hazard areas, shall be permanently protected from alteration by tracts or easements. A property owner may also voluntarily propose permanent protection of critical areas and their buffers on the owner’s property by use of tracts, easements, or gifting of the property to the City or by transfer of development rights. Any required forms or documents related to protective tracts or, easements or transfer of development rights shall be approved by the City Attorney. Any area permanently protected under this section shall impose upon all present and future owners and occupiers of the protected area the obligation to leave the protective area permanently undisturbed, unless otherwise allowed by this chapter. Such obligation shall be enforceable by the City on behalf of the public. The rules for transfer of development rights will be prepared as part of Phase 2 of this Code.</td>
<td>26</td>
<td><strong>areas and buffers</strong> (19.40.220)</td>
<td><strong>ar. areas and buffers</strong> (19.40.220)</td>
</tr>
<tr>
<td>26</td>
<td>CA</td>
<td>The Director may require a bond or other security in a form and amount deemed acceptable by the Director to ensure compliance with any aspect of this chapter or any decision or determination made under this chapter. The Director shall administratively prepare and maintain applicable bonding forms and procedures. [Ord. 394 § 1, 2003; Or. 376 § 1, 2003]</td>
<td>24</td>
<td><strong>areas and buffers</strong> (19.40.220)</td>
<td><strong>ar. areas and buffers</strong> (19.40.220)</td>
</tr>
<tr>
<td>27</td>
<td>E</td>
<td>FREQUENTLY FLOODED AREAS (Section header)</td>
<td>24</td>
<td><strong>FREQUENTLY FLOODED AREAS</strong></td>
<td><strong>FREQUENTLY FLOODED AREAS</strong></td>
</tr>
<tr>
<td>28</td>
<td>CA</td>
<td>19.40.240 Flood hazard areas – ComponentsFrequently flooded areas – Designation.</td>
<td>24</td>
<td><strong>FREQUENTLY FLOODED AREAS</strong></td>
<td><strong>FREQUENTLY FLOODED AREAS</strong></td>
</tr>
<tr>
<td>29</td>
<td>CA</td>
<td>1. The purpose of designation and protection of frequently flooded areas shall be to: A. Reduce the risk to life and safety, public facilities, and public and private property that result from floods. B. Avoid and minimize impacts to fish and wildlife habitats that occur within frequently flooded areas. C. Assure that flood loss reduction measures protect and are consistent with retaining natural floodplain functions related to protecting riparian habitat and the natural processes that create and maintain habitat for fish. D. Assure maintenance of hydraulic, geomorphic, and ecological functions of floodplains. E. Control filling, grading, dredging, and other development activities which may increase flood damage and alter beneficial natural stream processes. F. Prevent or regulate the construction of flood barriers that may unnaturally divert floodwaters in such a way as to block natural channel migration, or may increase flood hazards in other areas.</td>
<td>24</td>
<td><strong>FREQUENTLY FLOODED AREAS</strong></td>
<td><strong>FREQUENTLY FLOODED AREAS</strong></td>
</tr>
<tr>
<td>30</td>
<td>CA</td>
<td>A flood hazard area, frequently flooded areas shall include consists of the following components: A. 100-year Floodplain;</td>
<td>24</td>
<td><strong>FREQUENTLY FLOODED AREAS</strong></td>
<td><strong>FREQUENTLY FLOODED AREAS</strong></td>
</tr>
</tbody>
</table>

**Type key:**

- **E** – Editorial/wording changes for document clarity, consistency, and/or usability
- **O** – Document organization
- **CA** – Content change to administrative, designation, or other non-protective regulations
- **CP** – Content change to protective regulations
- **D** – To be determined through discussion by Planning Commission/Council (also highlighted in pink)
<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic ($)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(19.40.240)</td>
<td></td>
<td>B. Flood fringe;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>C. Zero-rise floodway; and</td>
<td>Terminology edited for consistency with the WAC.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D. Federal Emergency Management Agency (&quot;FEMA&quot;) floodway.</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>CA</td>
<td>Flood hazard areas – Components (19.40.240)</td>
<td>25</td>
<td>3. The City of Burien shall determine the flood hazard area/frequently flooded area boundaries after obtaining, reviewing and utilizing base flood elevations...</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>CA</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>25</td>
<td>19.40.250 Flood hazard areas/Frequently flooded areas – General Standards 1. For the purposes of sections 19.40.250, 19.40.260, and 19.40.270, development in frequently flooded areas includes any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, storage of equipment or materials, subdivision of land, removal of substantial amounts of vegetation, or alteration of natural site characteristics.</td>
<td>Definition of development in bullet (1) added to support requirements for new development provided in subsequent bullets (see below).</td>
</tr>
<tr>
<td>33</td>
<td>CA</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>25</td>
<td>2. Development within frequently flooded areas shall be subject to the provisions of Chapter 15.55 BMC, Flood Damage Prevention, as amended.</td>
<td>Rather than repeat sections of code from the City’s building code here and risk inconsistencies and redundancies, adopt that code by reference. We have gone through and suggested deletions where the existing critical areas code clearly duplicates provisions in Chapter 15.55 BMC (see below), but the City may wish to perform further review.</td>
</tr>
<tr>
<td>34</td>
<td>CP</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>25</td>
<td>3. Application requirements. In addition to the requirements of Section 19.40.120, a critical area study for a frequently flooded area shall contain an assessment of the following site- and proposal-related information that describes the effects of proposed development on floodplain functions including, but not limited to: A. Storing and conveying floodwater; B. Reducing peak flows and flow velocities; C. Reducing reed scour and displacing rearing juvenile fish at the project site and downstream; D. Maintaining sediment quality in streams; E. Improving water quality; F. Maintaining and improving fish access; and G. Mitigation for any adverse effects on floodplain functions, pursuant to section 19.40.170 of this Chapter; 4. The Director shall have the authority to require consultation with the Washington Department of Fish and Wildlife or other appropriate agencies.</td>
<td>By requiring a habitat assessment, the inserted text fulfills the “Door 3” option (default option) for compliance with the FEMA BiOp decision. Other options are described in the addendum to the Gap Analysis, and include more substantive to regulations. To streamline applications, habitat assessment requirements are presented as additional requirements to be included in the critical area study. In general, the habitat assessment must address potential impacts to: stormwater, water quality, floodplain capacity, vegetative habitat, spawning substrate, and/or floodplain refugia for listed salmonids. Important to note: Although current code does not address any of the “doors,” the City effectively already follows “door 3” (habitat assessment). Although the City has done some work on their building code toward adopting a “door 2” approach, this will likely be a lengthy, involved process, and we recommend that in the interim, the code reflects the City’s de facto requirements/process.</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>35</td>
<td>O</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>26</td>
<td>19.40.250. Flood fringe – Development standards and permitted alterations.</td>
<td>These requirements apply to the zero-rise floodway and FEMA floodway (i.e. entire floodplain), so no need for a separate section.</td>
</tr>
<tr>
<td>36</td>
<td>O</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>26</td>
<td>3. All elevated construction shall be designed and certified by a professional structural engineer licensed by the state of Washington and shall be approved by the city of Burien prior to construction.</td>
<td>Covered under 15.55.120(2) Flood Damage Prevention.</td>
</tr>
<tr>
<td>37</td>
<td>O</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>26</td>
<td>4. Subdivisions, short subdivisions and binding site plans shall meet the following requirements: A. New building lots shall contain 5,000 square feet or more of buildable land outside the zero-rise floodway, and building setback areas shall be shown on the face of the plat to restrict permanent structures to this buildable area; B. All utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed consistent with subsections 5, 6 and 9; C. Base flood data and flood hazard notes shall be shown on the face of the recorded subdivision, short subdivision or binding site plan including, but not limited to, the base flood elevation, required flood protection elevations and the boundaries of the floodplain and the zero-rise floodway, if determined; and D. The following notice shall also be shown on the face of the recorded subdivision, short subdivision or binding site plan for all affected lots: NOTICE: Lots and structures located within flood hazard areas may be inaccessible by emergency vehicles during flood events. Residents and property owners should take appropriate advance precautions.</td>
<td>Covered under 15.55.170(4) Flood Damage Prevention, per staff guidance.</td>
</tr>
<tr>
<td>38</td>
<td>O</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>27</td>
<td>5. New residential structures and substantial improvements of existing residential structures shall meet the following requirements: A. The lowest floor shall be elevated to the flood protection elevation; B. Portions of a structure which are below the lowest floor area shall not be fully enclosed. The areas and rooms below the lowest floor shall be designed to automatically equalize hydrostatic and hydrodynamic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for satisfying this requirement shall meet or exceed the following requirements: 1. A minimum of two openings on opposite walls having a total open area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;</td>
<td>Covered under 15.55.180(1) Flood Damage Prevention, per staff guidance.</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic (£)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
<td>-----------</td>
<td>-----</td>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>39</td>
<td>O</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>27</td>
<td>ii. The bottom of all openings shall be no higher than one foot above grade; and iii. Openings may be equipped with screens, louvers or other coverings or devices if they permit the unrestricted entry and exit of floodwaters; C. Materials and methods which are resistant to and minimize flood damage shall be used; and D. All electrical, heating, ventilation, plumbing, air conditioning equipment and other utility and service facilities shall be floodproofed to or elevated above the flood protection elevation.</td>
<td>Covered under 15.55.180(2) Flood Damage Prevention, per staff guidance.</td>
</tr>
<tr>
<td>40</td>
<td>O</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>28</td>
<td>7. All new construction shall be anchored to prevent flotation, collapse or lateral movement of the structure.</td>
<td>Covered under 15.55.170(1) Flood Damage Prevention, per staff guidance.</td>
</tr>
<tr>
<td>41</td>
<td>O</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>28</td>
<td>8. Mobile homes and mobile home parks shall meet the following requirements: A. Mobile homes shall meet all requirements for flood hazard protection for residential structures, shall be anchored and shall be installed using methods and practices which minimize flood damage; and B. No permit or approval for the following shall be granted unless all mobile homes within the mobile home park meet the requirements for flood hazard protection for residential structures: i. A new mobile home park;</td>
<td>Covered under 15.55.180(4), Flood Damage Prevention, per staff guidance.</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>42</td>
<td>O</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>28</td>
<td>ii. An expansion of an existing mobile home park; or iii. Any repair or reconstruction of streets, utilities or pads in an existing mobile home park which equals or exceeds 50 percent of the value of such streets, utilities or pads.</td>
<td>Covered under 15.55.170(3), Flood Damage Prevention, per staff guidance.</td>
</tr>
<tr>
<td>43</td>
<td>O</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>29</td>
<td>19.40.260 Zero-rise floodway– Development standards and permitted alterations. 12. The following are presumed to produce no increase in base flood elevation and shall not require a special study to establish this fact: A. New residential structures outside the FEMA floodway on lots… B. Substantial improvements of existing residential structures in the zero-rise floodway, but outside</td>
<td>Covered under 15.55.180(3), Flood Damage Prevention, per staff guidance.</td>
</tr>
<tr>
<td>44</td>
<td>E</td>
<td>Frequently flooded areas – General Standards (19.40.250) (new section)</td>
<td>29</td>
<td>117. Prior to approving any permit for alterations in the flood fringes frequently flooded area, the city of Burien shall determine that all permits required by state or federal law have been obtained.</td>
<td>Edited for numbering and terminology consistency.</td>
</tr>
<tr>
<td>45</td>
<td>O</td>
<td>Zero-rise floodway (19.40.260, now general standards for Floodway)</td>
<td>29</td>
<td>19.40.260 Zero-rise floodway–Development standards and permitted alterations. 12. The following are presumed to produce no increase in base flood elevation and shall not require a special study to establish this fact: A. New residential structures outside the FEMA floodway on lots… B. Substantial improvements of existing residential structures in the zero-rise floodway, but outside</td>
<td>Only one additional provision for FEMA floodways vs. zero-rise floodways; incorporated into regulation language. Bullet D taken from existing 19.40.270(4) FEMA floodway; incorporated here for streamlining and clarity.</td>
</tr>
</tbody>
</table>
**Type key:**
- **E** – Editorial/wording changes for document clarity, consistency, and/or usability
- **O** – Document organization
- **CA** – Content change to administrative, designation, or other non-protective regulations
- **CP** – Content change to protective regulations
- **D** – To be determined through discussion by Planning Commission/Council (also highlighted in pink)

### CRITICAL AREAS ORDINANCE
**Summary of Changes**
Planning Commission DRAFT 4/16/2015

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic (§)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td>O</td>
<td>Zero-rise floodway (19.40.260, now general standards for Floodway)</td>
<td>29</td>
<td>1. The requirements which apply to the flood fringe shall also apply to the zero-rise floodway. The more restrictive requirements shall apply where there is a conflict.</td>
<td>Per logic above, flood fringe standards moved to general standards, making this statement unnecessary.</td>
</tr>
</tbody>
</table>
| 47 | O    | Zero-rise floodway (19.40.260, now general standards for Floodway) | 29 | 2. A development proposal including, but not limited to, new or reconstructed structures shall not cause any increase in the base flood elevation unless the following requirements are met:  
A. Amendments to the Flood insurance rate map are adopted by FEMA, in accordance with 44 CFR 70, to incorporate the increase in the base flood elevation; and  
B. Appropriate legal documents are prepared in which all property owners affected by the increased flood elevations consent to the impacts on their property. These documents shall be filed with the title of record for the affected properties. | Covered under BMC 15.55.190(1), Flood Damage Prevention. |
| 48 | E    | Zero-rise floodway (19.40.260, now general standards for Floodway) | 31 | 52. Utilities may be allowed within the zero-rise floodway/Floodway if the city of Burien...  
68. Critical facilities shall not be allowed within the zero-rise floodway/Floodway except as provided in subsection 840. | Language and numbering revised per new combined section. |
<p>| 49 | O    | FEMA floodway – Development standards and permitted alterations (19.40.270, now part of general standards for Floodway) | 32 | 1. The requirements which apply to the zero-rise floodway shall not apply to the FEMA floodway. The more restrictive requirements shall apply where there is a conflict. | FEMA floodway is a subset of zero-rise floodway; provisions have been incorporated into general floodway section above and called out using terms “zero-rise” vs. “FEMA” to make distinctions when necessary. |</p>
<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic ($)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>O</td>
<td>FEMA floodway – Development standards and permitted alterations (19.40.270, now part of general standards for Floodway)</td>
<td>32</td>
<td>2. A development proposal including, but not limited to, new or reconstructed structures shall not cause any increase in the base flood elevation.</td>
<td>Covered under 15.55.190(1) Flood Damage Prevention.</td>
</tr>
<tr>
<td>52</td>
<td>O</td>
<td>FEMA floodway – Development standards and permitted alterations (19.40.270, now part of general standards for Floodway)</td>
<td>32</td>
<td>4. Substantial improvements of existing residential structures in the FEMA floodway, meeting the requirements of WAC 173-158-070, as amended, are presumed to produce no increase in base flood elevation and shall not require a special study to establish this fact. [Ord. 394 § 1, 2003; Ord. 28 § 1(472), 1993]</td>
<td>Incorporated under 19.40.260(3) (old numbering) – general standards for Floodway.</td>
</tr>
</tbody>
</table>
| 53 | O    | Flood hazard areas – Certified by engineer or surveyor (19.40.280) | 32  | 19.40.280 Flood hazard areas – Certification by engineer or surveyor.  
1. For all new structures or substantial improvements in a flood hazard area, the applicant shall provide certification by a professional civil engineer or land surveyor licensed by the state of Washington of:   
A. The actual as-built elevation of the lowest floor, including basement; and   
B. The actual as-built elevation to which the structure is floodproofed, if applicable.  
2. The engineer or surveyor shall indicate if the structure has a basement.  
3. The city of Burien shall maintain the certifications required by this section for public inspection.  
[Ord. 394 § 1, 2003; Ord. 28 § 1(473), 1993] | Covered under 15.55.120(2) Flood Damage Prevention. |
<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic ($)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>E</td>
<td>GEOLOGICALLY HAZARDOUS AREAS (Section header)</td>
<td>32</td>
<td>GEOLOGICALLY HAZARDOUS AREAS</td>
<td>Section headers make it easier to navigate the various sections of the document.</td>
</tr>
<tr>
<td>55</td>
<td>CA</td>
<td>Geologically hazardous areas – Designation (19.40.280) (new section)</td>
<td>32</td>
<td>19.40.280 Geologically hazardous areas – Designation.</td>
<td>Creation of “designation” section at the beginning of the GHA section of the CAO is consistent with treatment of other critical areas, and was recommended for clarity during joint PC/council meeting in March. Note: 19.40.270 no longer exists due to reorganization and revisions (skips from .260 to .280).</td>
</tr>
<tr>
<td>56</td>
<td>O</td>
<td>Geologically hazardous areas – Designation (19.40.280) (new section)</td>
<td>32</td>
<td>Move the following text from 19.40.290 (GHA development standards and permitted alterations) to new 19.40.285 (designation): 1. Intent. Geologically hazardous areas are a potential threat to public health, safety and welfare when construction of geotechnically incompatible uses is allowed. Some potential risk due to construction in geologically hazardous areas can be reduced through engineering design. Alteration of and construction in geologically hazardous areas should be avoided when the potential risk to public health and safety cannot be reduced to a level comparable to the undeveloped site.</td>
<td>Leading designation section with a “purpose” statement is consistent with treatment of other critical areas in the CAO.</td>
</tr>
<tr>
<td>57</td>
<td>CA</td>
<td>Geologically hazardous areas – Designation (19.40.280) (new section)</td>
<td>33</td>
<td>2. Geologically hazardous areas include areas susceptible to erosion, landslide, rock fall, subsidence, earthquake, or other geological events. Areas susceptible to one or more of the following types of hazards shall be designated as a geologically hazardous area: A. Erosion hazard; B. Landslide hazard; or C. Seismic hazard.</td>
<td>Clear definition of geologically hazardous areas and subcategories added per recommendation for clarity during joint PC/council meeting in March.</td>
</tr>
<tr>
<td>58</td>
<td>CA</td>
<td>Geologically hazardous areas – Designation (19.40.280) (new section)</td>
<td>33</td>
<td>3. The approximate location and extent of known landslide hazard areas and seismic hazard areas are shown on the Critical Areas Map adopted by the City, as described in BMC 19.40.040 and as most recently updated. For landslide hazard areas and seismic hazard areas depicted on the Critical Areas Map, the King County Census Areas Mapfolio from December 1990 was used as a base map. The City amends this map as new site-specific information becomes available from professional critical area studies completed as part of critical area review.</td>
<td>This is the approach used by the City for CARAs, and provides geographic (mapping) direction for designation.</td>
</tr>
<tr>
<td>59</td>
<td>E</td>
<td>WETLANDS (Section header)</td>
<td>38</td>
<td>WETLANDS</td>
<td>Section headers make it easier to navigate the various sections of the document.</td>
</tr>
<tr>
<td>60</td>
<td>E</td>
<td>Wetlands – Designation and</td>
<td>38</td>
<td>1. <strong>General Requirement</strong>: Intent. Wetlands provide fish and wildlife habitat, flood storage, water quality, recreation, educational opportunities, and aesthetics. The goal of wetland regulations in</td>
<td>Subsection header change; consistent with content and with approach for other critical areas.</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic (§)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Classification (19.40.300)</td>
<td></td>
<td></td>
<td>the City of Burien is to achieve no net loss of wetland functions and values.</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>CA</td>
<td>Wetlands – Designation and Classification (19.40.300)</td>
<td>38</td>
<td>2. Designation and Applicability. A. Wetlands are those areas in the City of Burien, designated in accordance with the approved federal wetland delineation manual and applicable regional supplements. All areas within the City of Burien meeting the wetland designation criteria in that procedure, regardless of any formal identification, are hereby designated critical areas and are subject to the provisions of this Chapter. [RCW 36.70A.175, RCW 90.58.380 (1995); WAC 173-22-035 (2011)] A. All wetlands meeting the federal definition of wetlands that lie within the City limits of Burien are regulated by this section. B. Where the vegetation has been removed or substantially altered, a wetland shall be determined by the presence or evidence of hydric or organic soil, as well as by other documentation, such as aerial photographs, of the previous existence of wetland vegetation. C. Puget Sound and Lake Burien are shorelines of the state and shall be regulated under the Burien Shoreline Management Master Program. 3. Designation of Wetlands. A. Wetlands are those areas in the City of Burien, designated in accordance with the Washington State Wetland Identification and Delineation Manual, as required by RCW 36.70A.175 (Ecology Publication #96-94). Wetlands are defined as those areas that are inundated or saturated, by ground water or surface water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. B. The designation of wetlands through application of the protocols outlined in the Washington State Wetland Identification and Delineation Manual, regardless of any other formal identification, shall designate those wetland areas as critical areas and shall be subject to the provisions of BMC 19.40. Where the vegetation has been removed or substantially altered, a wetland shall be determined by the presence or evidence of hydric or organic soil, as well as by other documentation, such as aerial photographs, of the previous existence of wetland vegetation.</td>
<td>Text insertions and deletions based on new Ecology guidance re: wetland delineation (required). Definition of wetlands also updated per Ecology guidance – please see accompanying definitions document, incorporated at the end of this table.</td>
</tr>
<tr>
<td>62</td>
<td>CA</td>
<td>Wetlands – Designation and Classification (19.40.300)</td>
<td>39</td>
<td>34. Wetland Rating and Classification. A. Wetlands are classified into category I, category II, category III and category IV based on the adopted Washington State Wetland Rating System for Western Washington, Washington State Department of Ecology publication number 14-06-029, or as amended. B. Wetland rating categories shall not recognize illegal modifications.</td>
<td>Text changes in this subsection are a result of the new wetland classification system released by Ecology in 2014. Note this is a more recent classification system (methodology) than the one used by the SMP; however, it results in the same actual assignment of wetland class. For consideration upon review and update to SMP.</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wetlands shall be designated Category 1, 2, 3, or 4 according to the criteria in this section:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>i. Category 1: Wetlands that meet any of the following criteria:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Documented presence of fish, wildlife, or plant species listed by the federal or state government as endangered or threatened or outstanding actual habitat for those species;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Equal to or greater than 10 acres in size and have three or more wetland classes as defined in BMC 19.10;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Association with a Type 1 stream;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Presence of plant associations of infrequent occurrence or High-Quality Native Wetland Communities. Examples include: bogs and fens, estuarine wetlands, mature forested wetlands, or kelp and eelgrass beds; or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Documented as regionally significant waterfowl or shorebird concentration areas.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Category 2: Wetlands that do not meet any of the criteria for Category 1, but meet any of the following criteria:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Greater than one acre in size;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Equal to or less than one acre in size and have three or more wetland classes as defined in BMC 19.10;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Forested wetlands equal to or less than one acre;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Documented presence of heron rookeries or raptor nesting trees;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>e. Documented occurrences of sensitive species of plant, animal or fish recognized by federal or state agencies;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>f. Associated with Type 2 or 3 streams; or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>g. Wetlands with significant habitat value (Greater than or equal to 72 points on the Wetlands Rating Form).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Category 3: A wetland that does not meet any of the criteria for Category 1 or 2, but meets either of the following criteria:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Of a size between 1,000 square feet and one acre, with two or fewer wetland classes as defined in BMC 19.10;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Wetlands where the habitat score for significant habitat value is less than or equal to 21 points;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>CP</td>
<td>Wetlands – Designation and Classification (19.40.300)</td>
<td>40</td>
<td>☑ The following types of wetlands are not regulated by the City of Burien:</td>
<td>Expands City’s existing definition of non-regulated wetlands, per Ecology guidance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Category 3All hydrological isolated Category III and IV wetlands less than 1,000 square feet and hydrologically isolated that;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Are not associated with riparian areas or buffers,</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CRITICAL AREAS ORDINANCE
Summary of Changes
Planning Commission DRAFT 4/16/2015

**Type key:**
E – Editorial/wording changes for document clarity, consistency, and/or usability
O – Document organization
CA – Content change to administrative, designation, or other non-protective regulations
CP – Content change to protective regulations
D – To be determined through discussion by Planning Commission/Council (also highlighted in pink)
### CRITICAL AREAS ORDINANCE

**Summary of Changes**

**Planning Commission DRAFT 4/16/2015**

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic ($)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>E</td>
<td>Wetlands – Designation and Classification (19.40.300)</td>
<td>41</td>
<td>1. Are not part of a wetland mosaic, and 2. Do not contain habitat identified as essential by Washington Department of Fish and Wildlife.</td>
<td>The current wetland definition already excludes farm ponds and landscape amenities.</td>
</tr>
<tr>
<td>65</td>
<td>E</td>
<td>Wetlands – Performance Standards (19.40.310, now Development Standards)</td>
<td>41</td>
<td>19.40.310 Wetlands – Performance Development standards.</td>
<td>Performance standards are used to measure the success of a mitigation project, e.g. (like a restored wetland) – this term is not appropriate for use in describing protective measures for existing wetlands.</td>
</tr>
<tr>
<td>66</td>
<td>CP</td>
<td>Wetlands – Performance Standards (19.40.310, now Development Standards)</td>
<td>41</td>
<td>1. General Requirements. … C. Plantings in a wetland or buffer should be native to Western Washington or be a native plant community appropriate for the ecoregion or increase the functions of the wetland or wildlife habitat.</td>
<td>Per Ecology comment from Donna Bunten, 3/10/15. Not required. Ecoregion added to City definitions; see accompanying definitions document, incorporated at the end of this table.</td>
</tr>
<tr>
<td>67</td>
<td>O</td>
<td>Wetlands – Performance Standards (19.40.310, now Development Standards)</td>
<td>41</td>
<td>Moved from subsection 2, which refers to buffers: Fi. Unless otherwise provided, the following restrictions shall apply to all development proposals in Category [A] or [B]: i. Implementation of a plan approved by the Director to protect and enhance the wetland’s water quality; and ii. Fencing located at the buffer edge. [Ord. 394 § 1, 2003]</td>
<td>This regulation applies more generally to wetlands (not just to wetland buffers). Wetland categories updated to reflect new classification system.</td>
</tr>
<tr>
<td>68</td>
<td>D</td>
<td>Wetlands – Performance Standards (19.40.310, now Development Standards)</td>
<td>42</td>
<td>B. The following standard buffers shall be established from the wetland edge:</td>
<td>Ecology recommends revising buffer regulations per the table on page A-6 of Wetlands and CAO Updates: Guidance for Small Cities (Western Washington Version) (Ecology Publication #10-06-002, January 2010) (as updated in 2012). The City will need to revise its buffers to be consistent with BAS. Please see accompanying document, BurienBufferOptions.docx, for presentation and discussion of options to revise these regulations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>Standard Wetland Buffer (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1*</td>
<td>200</td>
</tr>
<tr>
<td>Category 2</td>
<td>100</td>
</tr>
<tr>
<td>Category 3</td>
<td>50</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
</tr>
<tr>
<td>69</td>
<td>CA</td>
</tr>
<tr>
<td>70</td>
<td>CP</td>
</tr>
<tr>
<td>71</td>
<td>O</td>
</tr>
<tr>
<td>72</td>
<td>CP</td>
</tr>
<tr>
<td>73</td>
<td>E</td>
</tr>
<tr>
<td>74</td>
<td>CP</td>
</tr>
</tbody>
</table>
twenty-five percent (25%) of the buffer of Category III or IV wetlands, provided that:
a. No other location is feasible; and
b. The location of such facilities will not degrade the functions and values of the wetland; and
c. All requirements of the King County Surface Water Design Manual, as adopted in BMC 13.10, are met.

ii. A Category 2 wetland or buffer may be used for a regional retention/detention facility if:
a. A public agency and utility exception is granted pursuant to BMC 19.40.070.3;
b. All requirements of the Surface Water Design Manual are met; and
c. The use will not alter the rating or the factors used in rating the wetland.

iii. A Category 3 wetland buffer which has as its major function the storage of water may be used as a regional retention/detention facility if a pre-settlement pond is required and all requirements of the Surface Water Design Manual are met; and

iv. Use of a wetland buffer for a surface water management activity or facility, other than a retention/detention facility, such as an energy dissipater and associated pipes, may be allowed only if the applicant demonstrates to the satisfaction of the City, that:
a. No practicable alternative exists; and
b. The functions of the buffer or the wetland are not adversely affected.

E. Public and private trails may be allowed in the outer 25% of wetland buffers only if:
i. The trail surface is no more than 5 feet wide and shall not be made of impervious materials, except that public multipurpose trails may be made of impervious materials if:
a. j they meet all other requirements including water quality; and
b. j an impervious trail has less of an impact on the wetland and its buffer.

Per Ecology guidance. Placement farther from wetland minimizes potential impacts. 5 foot trail width is flexible; many jurisdictions use 6 feet here. The idea is to minimize impacts to vegetation, upon which the buffer function relies.

19.40.330 Wetlands – Additional Mitigation Requirements

To reflect general mitigation requirements of BMC 19.40.170.

Ecology has specific requirements for wetland mitigation; best/easiest way to ensure mitigation aligns with those requirements as they relate to plan contents.
<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic ($)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>78</td>
<td>O</td>
<td>Wetlands – Mitigation Requirements (19.40.330, now Additional Mitigation Requirements)</td>
<td>48</td>
<td>2. Types of Mitigation. Impacts to wetlands shall be mitigated according to the mitigation sequence defined in BMC 19.40.170, Mitigation Requirements. Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to wetlands and wetland buffers. When an alteration to a wetland or its required buffer is proposed, such alteration shall be avoided, minimized, or compensated for in the following order of preference: Mitigation actions that require compensation by replacing, enhancing, or substitution shall occur in the following order of preference: A. Avoidance of wetland and wetland buffer impacts, whether by finding another site or changing the location of the proposed activity on site. B. Minimizing wetland and wetland buffer impacts by limiting the degree of impact on site. C. Mitigation actions that require compensation by replacing, enhancing, or substitution shall occur in the following order of preference: a. Restoring wetlands on upland sites that were formerly wetlands. b. Creating wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of exotic introduced species or noxious weeds. c. Enhancing significantly degraded wetlands.</td>
<td>Mitigation sequencing is now covered under BMC 19.40.170 Mitigation Requirements.</td>
</tr>
<tr>
<td>79</td>
<td>CA</td>
<td>Wetlands – Mitigation Requirements (19.40.330, now Additional Mitigation Requirements)</td>
<td>49</td>
<td>3. Mitigation Location…. … C. Off-site locations shall be in the same sub-drainage basin and the same Water Resource Inventory Area (WRIA) unless: i. Regional or watershed goals for water quality, flood or conveyance, habitat or other wetland functions have been established and strongly justify location of mitigation at another site; or ii. Credits from a state-certified wetland mitigation bank are used as compensation, and the use of credits is consistent with the terms of the certified bank instrument; or iii. Fees are paid to an approved in-lieu fee program to compensate for the impacts.</td>
<td>Language regarding mitigation banks and ILF programs inserted per Ecology recommendation. Not required. Note that existing code within this subsection already allows for off-site mitigation outside of the city (off-site locations in the same sub-drainage basin and WRIA) when justified; this just expands these options to more explicitly align with watershed approach.</td>
</tr>
<tr>
<td>80</td>
<td>CA</td>
<td>Wetlands – Mitigation Requirements (19.40.330, now Additional Mitigation Requirements)</td>
<td>50</td>
<td>5. Mitigation Schedule. A. A mitigation monitoring schedule shall be established for a period of a minimum of five years.</td>
<td>Ecology staff recommends 10 years where a scrub-shrub or forested vegetation community is proposed (per comment received 3/10/15); however, it is atypical for small residential projects to require more than a 5 year monitoring and maintenance period. Planting density and/or area may be increased to compensate for loss of significant trees. The mitigation plan should justify how critical area functions and values are maintained. Forested versus non-forested wetland impacts could be addressed in section on mitigation ratios (bullet 7 below) per Ecology guidance.</td>
</tr>
</tbody>
</table>
### CRITICAL AREAS ORDINANCE

**Summary of Changes**

Planning Commission DRAFT 4/16/2015

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic (§)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>81</td>
<td>CP</td>
<td>Wetlands – Mitigation Requirements (19.40.330, now Additional Mitigation Requirements)</td>
<td>50</td>
<td>7. Mitigation Ratios.</td>
<td>New ratios recommended by Ecology (from page A-19 of the Small Cities Guidance) and required for consistency with BAS.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Wetland Category Creation or Restoration Ratio</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Category 1 and 2</td>
<td>3-to-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Category 3 and 4</td>
<td>2-to-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Category of Impact Wetland</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Creation or Re-establishment Re- establishment Enhancement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Category I: based on total score</td>
<td>4:1</td>
<td>8:1</td>
<td>16:1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Category I: Mature Forested</td>
<td>6:1</td>
<td>12:1</td>
<td>24:1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Category II</td>
<td>3:1</td>
<td>6:1</td>
<td>12:1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Category III</td>
<td>2:1</td>
<td>4:1</td>
<td>8:1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Category IV</td>
<td>1.5:1</td>
<td>3:1</td>
<td>6:1</td>
</tr>
<tr>
<td>82</td>
<td>CP</td>
<td>Wetlands – Mitigation Requirements (19.40.330, now Additional Mitigation Requirements)</td>
<td>52</td>
<td>8. Wetlands Enhancement as Mitigation.</td>
<td>To meet the federal mandate of no net loss of wetland area, Ecology does discourage wetland enhancement only to mitigate for wetland area loss. It is an option under the guidance, but the ratio varies by wetland category and is much higher than double (see tables above).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>…</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. At a minimum, enhancement acreage shall be double according to the ratios in Section 19.40.330.<strong>7 above.</strong> The acreage required for creation or restoration under Subsection A.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>E</td>
<td>STREAMS (Section header)</td>
<td>52</td>
<td>STREAMS</td>
<td>Section headers make it easier to navigate the various sections of the document.</td>
</tr>
<tr>
<td>84</td>
<td>CA</td>
<td>Streams – Designation and Classification (19.40.340)</td>
<td>53</td>
<td>3. Stream Classifications. Streams shall be classified as Type 4S, Type 2F, Type 2Np, or Type 4Ns according to the criteria in this section permanent water typing system (WAC 222-16-030). Water types are described generally below: Type S waters are all waters inventoried as &quot;shorelines of the state&quot; under Chapter 90.58 RCW. Type S waters are not regulated under this Chapter and are subject to the Shoreline Master</td>
<td>Adoption of permanent water-typing system per WAC/Commerce guidance. Recommend adding full definitions for Type S, Type F, Type Np, and Type Ns streams (found in WAC 222-16-030) to definitions section, and linking appropriate text in this section.</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>85</td>
<td>E</td>
<td>Streams – Performance Standards (19.40.350, now Development Standards)</td>
<td>53</td>
<td>Program (Title 20 BMC). B. Type F waters are segments of natural waters, other than Type S waters, which contain fish habitat. C. Type Np waters include those which are perennial during a year of normal rainfall and do not have the potential to be used by fish and are typically formed by geomorphic processes. D. Type Ns waters include those which are seasonal or ephemeral during a year of normal rainfall and do not have the potential to be used by fish and were generally formed by geomorphic processes.</td>
<td>See definitions document, incorporated at the end of this table.</td>
</tr>
<tr>
<td>86</td>
<td>O</td>
<td>Streams – Performance Standards (19.40.350, now Development Standards)</td>
<td>54</td>
<td>Moved from subsection 2, which refers to buffers: FI. Unless otherwise provided, the following restrictions shall apply to all development proposals within the vicinity of all City of Burien streams and stream buffers that include the introduction of livestock: I. Implementation of a plan approved by the Director to protect and enhance the stream’s water quality; and II. Fencing located at the stream buffer edge. [Ord. 580 § 1 (Exh. A), 2012; Ord. 394 § 1, 2003]</td>
<td>This regulation applies more generally to streams (not just to stream buffers).</td>
</tr>
<tr>
<td>87</td>
<td>CP</td>
<td>Streams – Performance Standards (19.40.350, now Development Standards)</td>
<td>54</td>
<td>2. Buffers. Stream Type Standard Stream Buffer (feet) Type 1* 125 Type 2 100 Type 3 50 Type 4 25</td>
<td>Recommendation from the Gap Analysis. City will need to adopt for consistency with BAS. Note that for the purposes of buffers, Type 2 streams will become Type F; Type 3 and 4 will become Np and Ns, respectively. BAS-based ranges for the recommended water typing system: Type F: 100-165 ft</td>
</tr>
</tbody>
</table>
# Summary of Changes

Planning Commission DRAFT 4/16/2015

## Type key:
- **E** – Editorial/wording changes for document clarity, consistency, and/or usability
- **O** – Document organization
- **CA** – Content change to administrative, designation, or other non-protective regulations
- **CP** – Content change to protective regulations
- **D** – To be determined through discussion by Planning Commission/Council (also highlighted in pink)

## CRITICAL AREAS ORDINANCE

### Topic (§)

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>CA</td>
<td>Streams – Performance Standards (19.40.350, now Development Standards)</td>
<td>*as of October 20, 2003 date of adoption of this Chapter, no Type 4 streams exist in Burien. Updated to be current.</td>
</tr>
<tr>
<td>89</td>
<td>O</td>
<td>Streams – Performance Standards (19.40.350, now Development Standards)</td>
<td>D. No impervious surfaces are allowed within fifteen (15) feet of the edge of a designated or modified stream buffer. This area serves to protect the stream during development activities, use, and routine maintenance occurring adjacent to these resources. The following impervious surfaces may be allowed within fifteen (15) feet of the buffer edge, building overhangs which do not extend more than eighteen (18) inches into the area, and residential driveways and patios subject to water quality regulations as adopted in the City’s stormwater management regulations (BMC 13.10). Numbering of subsequent bullets revised accordingly. Now covered under 19.40.230 General development standards.</td>
</tr>
<tr>
<td>90</td>
<td>CP</td>
<td>Streams – Performance Standards (19.40.350, now Development Standards)</td>
<td>v. If the buffer reduction results in a buffer of less than twenty-five (25) feet, the applicant shall be responsible for attending an environmental stewardship Class Acceptable to the City. BAS indicates that buffers do not provide any buffering functions when smaller than 25 feet. This clarification allows reduction of Type F and Type Np streams consistent with the City’s existing code, and allows greater reduction of Type Ns stream buffers to accommodate existing conditions in the City while still ensuring functional buffers.</td>
</tr>
<tr>
<td>91</td>
<td>CP</td>
<td>Streams – Performance Standards (19.40.350, now Development Standards)</td>
<td></td>
</tr>
</tbody>
</table>

### Table

<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>CA</td>
<td>55</td>
<td>*as of October 20, 2003 date of adoption of this Chapter, no Type 4 streams exist in Burien. Updated to be current.</td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>O</td>
<td>55</td>
<td>D. No impervious surfaces are allowed within fifteen (15) feet of the edge of a designated or modified stream buffer. This area serves to protect the stream during development activities, use, and routine maintenance occurring adjacent to these resources. The following impervious surfaces may be allowed within fifteen (15) feet of the buffer edge, building overhangs which do not extend more than eighteen (18) inches into the area, and residential driveways and patios subject to water quality regulations as adopted in the City’s stormwater management regulations (BMC 13.10). Numbering of subsequent bullets revised accordingly. Now covered under 19.40.230 General development standards.</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>CP</td>
<td>56</td>
<td>v. If the buffer reduction results in a buffer of less than twenty-five (25) feet, the applicant shall be responsible for attending an environmental stewardship Class Acceptable to the City. BAS indicates that buffers do not provide any buffering functions when smaller than 25 feet. This clarification allows reduction of Type F and Type Np streams consistent with the City’s existing code, and allows greater reduction of Type Ns stream buffers to accommodate existing conditions in the City while still ensuring functional buffers.</td>
<td></td>
</tr>
<tr>
<td>91</td>
<td>CP</td>
<td>57</td>
<td></td>
<td>Buffers smaller than 25 feet are no longer possible given the revised reduction regulations above.</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
<td>-----------</td>
<td>-----</td>
<td>----------------</td>
</tr>
<tr>
<td>92</td>
<td>CA</td>
<td>Streams – Permitted Alterations (19.40.360)</td>
<td>57-60</td>
<td>1. Alteration to Streams. A. Relocation or piping of any Type 1 or 2 stream in the City of Burien shall not be permitted unless undertaken for stream enhancement as described in BMC 19.40.360.1 (B). Relocation or piping of Type 3 or 4 streams may take place only when it is part of an approved mitigation or restoration plan, and will result in equal or better habitat and water quality, and will not diminish the flow capacity of the stream.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Alterations to Stream Buffers. ... C. Utilities such as water, telephone, cable, electric, and natural gas may be allowed in Type 3 or Type 4 stream buffers if: ... E. The following surface water management activities and facilities may be allowed in Type 3 and Type 4 stream buffers only as follows: i. Surface water discharge to a Type 3 or Type 4 stream from a detention facility, pre-settlement pond or other surface water management activity... ii. A Type 3 or Type 4 stream or stream buffer may be used for a regional retention/detention facility if: ... G. Stream crossings may be allowed and may encroach on the required stream buffer if... ... ii. All crossings use bridges or other construction techniques which do not disturb the stream bed or bank; except that bottomless culverts, fish friendly culverts or other appropriate methods demonstrated to provide fisheries protection may be used for Type 2, 3, or 4 streams if the culvert design is in accordance with the WDFW manual Fish Passage Design at Road Culverts;</td>
</tr>
<tr>
<td>93</td>
<td>E</td>
<td>Streams – Mitigation requirements (19.40.370, now Additional mitigation requirements)</td>
<td>61</td>
<td>19.40.370 Streams – Additional Mitigation requirements.</td>
</tr>
<tr>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>-----</td>
<td>----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>E</td>
<td>Streams – Mitigation requirements (19.40.370, now Additional mitigation requirements)</td>
<td>61</td>
<td>A. All impacts to streams that degrade the functions and values of the stream shall be avoided. If alteration to the stream is unavoidable, all adverse impacts to the stream and its buffer resulting from a development proposal or alteration shall be mitigated in accordance with an approved mitigation plan as described below.</td>
<td>Internal reference added for enhanced usability.</td>
</tr>
<tr>
<td>E</td>
<td>FISH AND WILDLIFE HABITAT CONSERVATION AREAS (Section header)</td>
<td>63</td>
<td>FISH AND WILDLIFE HABITAT CONSERVATION AREAS</td>
<td>Section headers make it easier to navigate the various sections of the document.</td>
</tr>
<tr>
<td>E</td>
<td>Fish and Wildlife Habitat Conservation Areas – Designation and Classification (19.40.380)</td>
<td>63</td>
<td>19.40.380 Fish and Wildlife Habitat Conservation Areas – Designation and Classification</td>
<td>No classifications of FWHCAs are presented in this section.</td>
</tr>
<tr>
<td>CA</td>
<td>Fish and Wildlife Habitat Conservation Areas – Designation and Classification (19.40.380)</td>
<td>63</td>
<td>1. Fish and wildlife habitat conservation areas are those habitat areas that meet any of the following criteria: … F. Bald eagle habitat protected pursuant to the Washington State Federal Bald and Golden Eagle Protection ActRules (WAC 232-12-202); or G. Heron rookeries or active nesting trees; or</td>
<td>Per City staff recommendation, to reflect changes to WAC.</td>
</tr>
<tr>
<td>CA</td>
<td>Fish and Wildlife Habitat Conservation Areas – Designation and Classification</td>
<td>63</td>
<td>H. Waters of the state, regulated under Section 19.40.340, Streams, of this Chapter.</td>
<td>Under the WAC, FWHCAs include waters of the state, which include streams. The City has indicated that it wishes to keep its stream regulations separate than those for other FWHCAs. In order to clarify how the City’s regulations map to the WAC, we have added bullet 19.40.380(1)(H) under FWHCA designation. This helps explain the separate stream section in the code, and serves to illustrate why it sometimes makes more sense to</td>
</tr>
<tr>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>-----</td>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>E</td>
<td>(19.40.380)</td>
<td>63</td>
<td>2. The approximate location and extent of known fish and wildlife habitat conservation areas are shown on the Critical Areas Maps adopted by the City. as described in BMC 19.40.040(2)(A) and as most recently updated.</td>
<td>Added for clarity and consistency with other sections.</td>
</tr>
<tr>
<td>E</td>
<td>(19.40.390, now Development Standards)</td>
<td>64</td>
<td>19.40.390 Fish and Wildlife Habitat Conservation Areas – Performance Development Standards.</td>
<td>Performance standards are used to measure the success of a mitigation project, e.g. (like a restored habitat) – this term is not appropriate for use in describing protective measures for existing FWHCAs.</td>
</tr>
<tr>
<td>E</td>
<td>(19.40.390, now Development Standards)</td>
<td>67</td>
<td>b. The location and description of the fish and wildlife habitat conservation areas on the subject property, as well as any potential fish and wildlife habitat conservation areas within 200 feet of the subject property as shown on the City’s adopted Critical Areas Maps; and ...</td>
<td>Edited for clarity and consistency with other sections.</td>
</tr>
<tr>
<td>E</td>
<td>(19.40.410)</td>
<td>67</td>
<td>1. Endangered, threatened, and sensitive species habitat. ... B. B. Whenever activities are proposed adjacent to a fish and wildlife habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a Habitat Management Plan prepared by a qualified professional (BMP 19.40.390) and approved by the City.</td>
<td>Internal reference added for usability.</td>
</tr>
<tr>
<td>CA</td>
<td>(19.40.410)</td>
<td>67</td>
<td>C. Bald eagle habitat shall be protected pursuant to the FederalWashington State Bald Eagle Protection Rules Act (WAC 225-12-022). Whenever activities are proposed within 660 feet of a verified nest territory or communal roost, a Habitat Management Plan shall be developed by a qualified professional. Activities are adjacent to bald eagle sites when they are</td>
<td>Per City staff recommendation, to reflect changes to WAC.</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
<td>-----------</td>
<td>-----</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>105</td>
<td>CA</td>
<td>Fish and Wildlife Habitat Conservation Areas – Specific Habitats (19.40.410)</td>
<td>68</td>
<td>within eight hundred (800) feet of an eagle nest, or within a quarter mile (1,320 feet) if in a shoreline foraging area. The applicant shall verify the location of eagle management areas for each proposed activity; consult with the U.S. Fish and Wildlife Service to determine if a permit is required. Prior to issuance of the building permit by the City, the applicant shall provide written approval of the Habitat Management Plan by the Department of Fish and Wildlife.</td>
</tr>
<tr>
<td>106</td>
<td>E</td>
<td>CRITICAL AQUIFER RECHARGE AREAS (Section header)</td>
<td>68</td>
<td>CRITICAL AQUIFER RECHARGE AREAS</td>
</tr>
</tbody>
</table>
4. Appeal of determination.  
D. If the hydrogeologic assessment determines that the facility will have no effect on groundwater, the facility is exempt from the performance development standards requirements in Sections 19.40.350.6.  
E. If the hydrogeologic assessment determines that the facility could have an effect on the groundwater resource, the City shall require implementation of applicable development standards and applicable performance standards in 19.40.350.5 and 19.40.350.6.  
5. Performance Development standards – General requirements. | Performance standards are used to measure the success of a mitigation project – this term is not appropriate for use in describing protective measures for existing CARAs. |
<p>| 108 | CA   | Critical aquifer recharge areas – Performance Standards (19.40.430, now Development Standards) | 72  | C. Storage tank permits. The City of Burien specifically regulates and authorizes permits for underground storage tanks, pursuant to the Uniform Fire Code (Article 70) and this Chapter. The Washington Department of Ecology also regulates and authorizes permits for underground storage tanks (WAC 173-360). The local Fire District regulates and authorizes permits for the removal of underground storage tanks. (UFC 7002) | Edited per City staff recommendation, to reflect changes to City fire code. |</p>
<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic ($)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>109</td>
<td>DEFINITIONS</td>
<td>(19.10)</td>
<td>NA</td>
<td>19.10.140.5 Ecoregion - Ecoregions are defined using EPA’s Ecoregions of the Pacific Northwest Document No. 600/3-86/033 July 1986 by Omernik and Gallant. The term ecoregions is used to define a mapped classification of the ecosystem regions of the United States. Ecoregions are generally considered to be regions of relative homogeneity in ecological systems or in relationships between organisms and their environments. In general, ecoregions have a distinct composition and distribution of plant and animal species.</td>
<td>Defined using EPA’s Ecoregions of the Pacific Northwest Document No. 600/3-86/033 July 1986 by Omernik and Gallant, as defined in WAC 173-340-7493(7)(a).</td>
</tr>
<tr>
<td>110</td>
<td>DEFINITIONS</td>
<td>(19.10)</td>
<td></td>
<td>19.10.182 Frequently flooded area - Frequently flooded areas are lands in the flood plain subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to high groundwater. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands, and areas where high groundwater forms ponds on the ground surface.</td>
<td>WAC 365-190-030(8)</td>
</tr>
</tbody>
</table>
| 111| DEFINITIONS   | (19.10)   |      | 19.10.545.5 Type F Water - Type F Water means segments of natural waters other than Type S Waters, which are within the bankfull widths of defined channels and periodically inundated areas of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of 0.5 acre or greater at seasonal low water and which in any case contain fish habitat or are described by one of the following four categories:  
(a) Waters, which are diverted for domestic use by more than 10 residential or camping units or by a public accommodation facility licensed to serve more than 10 persons, where such diversion is determined by the department to be a valid appropriation of water and the only practical water source for such users. Such waters shall be considered to be Type F Water upstream from the point of such diversion for 1,500 feet or until the drainage area is reduced by 50 percent, whichever is less;  
(b) Waters, which are diverted for use by federal, state, tribal or private fish hatcheries. Such waters shall be considered Type F Water upstream from the point of diversion for 1,500 feet, including tributaries if highly significant for protection of downstream water quality. The department may allow additional harvest beyond the requirements of Type F Water designation provided the department determines after a landowner-requested on-site assessment by the department of fish and wildlife, department of ecology, the affected tribes and interested parties that:  
(i) The management practices proposed by the landowner will adequately protect water quality for the fish hatchery; and  
(ii) Such additional harvest meets the requirements of the water type designation that would apply in the absence of the hatchery;  
(c) Waters, which are within a federal, state, local, or private campground having more than 10 camping units: Provided, That the water shall not be considered to enter a campground until it                                                                 | WAC 222-16-030(2)                                                                                                                                                                                                                                                  |
<table>
<thead>
<tr>
<th>#</th>
<th>Type</th>
<th>Topic (§)</th>
<th>Pg.</th>
<th>Proposed change</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>112</td>
<td>DEFINITIONS (19.10)</td>
<td>19.10.546 Type Np Water</td>
<td>19</td>
<td>reaches the boundary of the park lands available for public use and comes within 100 feet of a camping unit, trail or other park improvement; (d) Riverine ponds, wall-based channels, and other channel features that are used by fish for off-channel habitat. These areas are critical to the maintenance of optimum survival of fish. This habitat shall be identified based on the following criteria: (i) The site must be connected to a fish habitat stream and accessible during some period of the year; and (ii) The off-channel water must be accessible to fish.</td>
<td>WAC 222-16-030(3)</td>
</tr>
<tr>
<td>113</td>
<td>DEFINITIONS (19.10)</td>
<td>19.10.546.3 Type Ns Water</td>
<td>20</td>
<td>- Type Ns Water means all segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np Waters. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is a Type Np Water. Ns Waters must be physically connected by an above-ground channel system to Type S, F, or Np Waters.</td>
<td>WAC 222-16-030(4)</td>
</tr>
<tr>
<td>114</td>
<td>DEFINITIONS (19.10)</td>
<td>19.10.546.5 Type S Water</td>
<td>21</td>
<td>- 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.</td>
<td>WAC 222-16-030(1)</td>
</tr>
<tr>
<td>115</td>
<td>DEFINITIONS (19.10)</td>
<td>19.10.580 Wetlands</td>
<td>22</td>
<td>- Wetlands are those areas in the City of Burien, designated in accordance with the Washington State Wetland Identification and Delineation Manual, as required by RCW 36.70A.175 (Ecology Publication #96-04). Wetlands are defined as those areas that are inundated or saturated, by ground or surface water at a frequency and duration sufficient to support, and under normal circumstances to support, a prevalence of vegetation typically adopted 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 non-wetland 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.</td>
<td>Wetlands definition updated per WAC/Ecology guidance. WAC 365-190-030(22)</td>
</tr>
<tr>
<td>#</td>
<td>Type</td>
<td>Topic ($)</td>
<td>Pg.</td>
<td>Proposed change</td>
<td>Justification</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands. For identifying and delineating a wetland, local government shall use the Washington State Wetland Identification and Delineation Manual approved federal wetland delineation manual and applicable regional supplements.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Purpose
As part of the update to its critical areas regulations, the City of Burien must consider best available science (BAS) in revising and developing regulations that protect the functions and values of its critical areas. In 2014 the Washington State Department of Ecology published new BAS-based recommendations for wetland buffer regulations. The purpose of this document is to present and discuss two options for revisions to the City’s wetland buffer regulations for consideration by the Planning Commission.

Current regulations (BMC 19.40.310(B)) Wetlands – Performance standards: Buffers

Table 1. Current wetland buffer widths

<table>
<thead>
<tr>
<th>Wetland Category *</th>
<th>Standard Wetland Buffer (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td>200</td>
</tr>
<tr>
<td>Category 2</td>
<td>100</td>
</tr>
<tr>
<td>Category 3</td>
<td>50</td>
</tr>
<tr>
<td>Category 4</td>
<td>30</td>
</tr>
</tbody>
</table>

* Wetland Categories in the table above are based on the descriptions in BMC 19.40.300(4) and are not equivalent to the Ecology Wetland Rating System Categories cited in the options below.

Options for revisions to wetland buffer regulations
The following options for revisions all come from BAS-based guidance from Ecology, and all use the 2014 Wetland Rating System for Western Washington (2014 wetland rating system) (Ecology publication 14-06-029). In addition to wetland category, the Washington State Department of Ecology (Ecology) recommends using wetland habitat score and/or land use intensity to establish buffer widths.

Option A
This option reflects the most current guidance from Ecology, and was recommended in a comment from Ecology received by the City on March 10, 2015.

This approach comes from Ecology’s Guidance for Small Cities (2012), Buffer Requirements for Western Washington table. Ecology updated the table in December 2014 for use with the current wetland rating system. In developing their guidance, Ecology assumed that land uses for small cities would be moderate-to-high intensity in most cases. As a result, buffers are established based on wetland category and habitat score, and do not consider land use intensity (see Table 2). Instead, Ecology recommends requiring impact-minimizing measures to provide further protection against land use impacts (see Table 3 below). As a result of these protective measures, the buffers in this option are overall smaller than in the rest of the options. If an applicant chooses not to apply the required measures, a 33% increase in the width of all buffers is required (which makes up for the difference in buffer widths between this option and option B).
Table 2. Buffer widths based on wetland category and habitat score¹

<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>Buffer width if wetland scores 3-4 habitat points</th>
<th>Additional buffer width if wetland scores 5 habitat points</th>
<th>Additional buffer width if wetland scores 6-7 habitat points</th>
<th>Additional buffer width if wetland scores 8-9 habitat points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category I</td>
<td>75 ft</td>
<td>add 30 ft</td>
<td>add 90 ft</td>
<td>add 150 ft</td>
</tr>
<tr>
<td>Category II</td>
<td>75 ft</td>
<td>add 30 ft</td>
<td>add 90 ft</td>
<td>add 150 ft</td>
</tr>
<tr>
<td>Category III</td>
<td>60 ft</td>
<td>add 45 ft</td>
<td>add 105 ft</td>
<td>add 165 ft</td>
</tr>
<tr>
<td>Category IV</td>
<td>40 ft</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ To incorporate habitat score range differences between the 2004 and updated 2014 Wetland Rating System for Western Washington (Ecology publication 14-06-029), Ecology re-issued the Buffer Requirements for Western Washington table in December 2014. Table 2 above is a simplified version of Ecology’s updated wetland buffer recommendations.

Table 3. Required measures to minimize impacts to wetlands.²

<table>
<thead>
<tr>
<th>Disturbance</th>
<th>Required Measures to Minimize Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lights</td>
<td>• Direct lights away from wetland</td>
</tr>
<tr>
<td>Noise</td>
<td>• Locate activity that generates noise away from wetland</td>
</tr>
<tr>
<td></td>
<td>• If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source</td>
</tr>
<tr>
<td></td>
<td>• For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10’ heavily vegetated buffer strip immediatel adjacent to the outer wetland buffer</td>
</tr>
<tr>
<td>Toxic runoff</td>
<td>• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered</td>
</tr>
<tr>
<td></td>
<td>• Establish covenants limiting use of pesticides within 150 feet of wetland</td>
</tr>
<tr>
<td></td>
<td>• Apply integrated pest management</td>
</tr>
<tr>
<td>Stormwater runoff</td>
<td>• Retrofit stormwater detention and treatment for roads and existing adjacent development</td>
</tr>
<tr>
<td></td>
<td>• Prevent channelized flow from lawns that directly enters the buffer</td>
</tr>
<tr>
<td></td>
<td>• Use Low Intensity Development techniques (per PSAT publication on LID techniques)</td>
</tr>
<tr>
<td>Change in water regime</td>
<td>• Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns</td>
</tr>
<tr>
<td>Pets and human disturbance</td>
<td>• Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion</td>
</tr>
<tr>
<td></td>
<td>• Place wetland and its buffer in a separate tract or protect with a conservation easement</td>
</tr>
<tr>
<td>Dust</td>
<td>• Use best management practices to control dust</td>
</tr>
<tr>
<td>Disruption of corridors or connections</td>
<td>• Maintain connections to offsite areas that are undisturbed</td>
</tr>
<tr>
<td></td>
<td>• Restore corridors or connections to offsite habitats by replanting</td>
</tr>
</tbody>
</table>

² Measures are required, where applicable to a specific proposal.
Considerations for Option A

- Buffer widths are based on existing wetland conditions with an emphasis on habitat functions and values.
- The buffer width for each wetland category varies by habitat score, divided into four scales: low (3-4), medium (5), medium-high (6-7), and high (8-9).
- Option A provides an incentive for applicants to incorporate impact minimization measures into their site plans.
- Option A provides flexibility for applicants.
- Buffer widths may be narrower under this option, relative to Option B.
- Option A aligns with the most recent guidance from Ecology.

Option B

This option is also taken from Ecology’s 2005 *Wetlands in Washington State, Volume 2 – Protecting and Managing Wetlands*, Appendix 8C. Buffers are established based on wetland category as well as both habitat score and land use intensity. This option is therefore both the most flexible and the most complex.

Table 4. Buffer widths based on wetland category, habitat score, and land use impact.

<table>
<thead>
<tr>
<th>Wetland Category</th>
<th>Habitat Score</th>
<th>Land Use Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Category I</td>
<td>8-9</td>
<td>150 ft</td>
</tr>
<tr>
<td></td>
<td>5-7</td>
<td>75 ft</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
<td>50 ft</td>
</tr>
<tr>
<td>Category II</td>
<td>8-9</td>
<td>150 ft</td>
</tr>
<tr>
<td></td>
<td>5-7</td>
<td>75 ft</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
<td>50 ft</td>
</tr>
<tr>
<td>Category III</td>
<td>5-7</td>
<td>75 ft</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
<td>40 ft</td>
</tr>
<tr>
<td>Category IV</td>
<td>N/A</td>
<td>25 ft</td>
</tr>
</tbody>
</table>

Types of proposed land use that can result in high, moderate, and low levels of impacts to adjacent wetlands:

- High: Commercial, urban, industrial, institutional, retail, residential (> 1 unit/acre); high-intensity agriculture, high-intensity recreation
- Moderate: Residential (1 unit/acre or less), moderate-intensity open space (parks with biking, jogging, etc.), moderate-intensity agriculture, paved trails, logging roads, utility corridors or rights-of-way
- Low: Forestry, low-intensity open space (hiking, preservation, etc.), unpaved trails, utility corridors without a maintenance road and little or no vegetation management.

Local governments are encouraged to create land-use designations consistent with these examples that are consistent with/based on local zoning.
Considerations for Option B

- Buffer widths are based on existing wetland conditions, habitat functions, and the proposed land use intensity.
- The buffer width for each wetland category varies by habitat score, divided into three scales: low (3-4), medium (5-7), and high (8-9).
- Most projects would be considered moderate- or high-intensity land use. The low-intensity land use would not apply to most permit applications; including it here makes the table more complex. Additionally, land use intensity is typically determined by zoning and fundamental project objectives.
- Applicants wouldn’t receive credit for impact minimization measures under Option B.
- Buffers may be wider under Option B, relative to Option A.
March 25, 2015

David Johanson
Senior Planner
City of Burien
400 SW 152nd Street, Suite 300
Burien, WA 98166

Re: City of Burien – Critical Areas Ordinance Update, Addendum to Best Available Science and Gap Analysis Reports
The Watershed Company Reference Number: 110316

Dear David:

The Growth Management Act (GMA) mandates that cities include best available science (BAS) in developing regulations to protect the functions and values of critical areas (RCW 36.70A.172(1)). The Watershed Company completed a review of BAS for critical areas in the City of Burien in 2011, and a gap analysis of the City’s existing Critical Areas Ordinance (CAO) (BMC 19.40) in 2012. Since that time, some new BAS has been published. Additionally, the Washington State Department of Ecology (Ecology) has provided preliminary review comments on the City’s existing CAO.

The purpose of this document is to summarize those comments and the new BAS that is relevant to the City’s critical areas, and to make recommendations for revisions to the City’s existing CAO. These recommendations are intended to ensure that the City’s CAO meets the requirements of the GMA, and may be considered together with other relevant information during a complete review and update of the CAO.


BAS Review

Frequently Flooded Areas (BAS Report, Section 3)
Frequently Flooded Areas (FFAs) provide vital salmon habitat through recruitment of woody debris and gravels, and riffle/pool side channel rearing and refuge (Knight 2009). Ecology issued Guidance to Local Governments on Frequently Flooded Area Updates in CAO’s...
in January 2015. This guidance document identifies key considerations when updating
Frequently Flooded Areas (FFA) designation, mapping, and standards. Designation and
mapping of FFAs should reflect updated Flood Insurance Rate Maps (FIRM) from the
Federal Emergency Management Agency (FEMA).

Climate change summaries predict over a 1.5 foot rise in global sea level by 2100.
Climate change is also predicted to increase storm intensities, increase rates of erosion,
increase landslide hazards, and cause saltwater intrusion into low-lying wells in coastal
communities (http://www.ecy.wa.gov/climatechange/risingsealevel.htm).

documents the importance of floodplain habitat for listed salmonids. The FEMA BiOp
found that implementation of the National Flood Insurance Program (NFIP) in the Puget
Sound region jeopardizes the continued existence of federally threatened salmonids and
resident killer whales. As a result, NMFS established Reasonable and Prudent
Alternatives to ensure that development within the Special Flood Hazard Area (100 year
floodplain), floodway, channel migration zone (CMZ), and riparian buffer zone do not
adversely affect water quality, water quantity, flood volumes, flood velocities, spawning
substrate, or floodplain refugia for listed salmonids. 2015 Ecology guidance on FFAs
emphasizes local planning implications of the FEMA BiOp and notes local government’s
role in Endangered Species Act (ESA) compliance. “Because local government growth
management and shoreline management plans regulate many of the land use decisions
in these areas, local governments are in a unique position to influence the protection and
restoration of salmonid habitat” (Knight 2009).

Wetlands (BAS Report, Section 5)
Since the BAS Report was issued for City of Burien, Ecology updated the Western
Washington Wetland Rating System in June 2014. This change also affects Ecology
recommendations for buffer widths. Additionally, Ecology published an updated
review of wetland buffer science in October 2013.

Wetland Rating System
The current BAS-based wetland rating system is the Washington State Wetland Rating

Using reference wetlands, Ecology calibrated the updated 2014 wetland rating system to
maintain roughly the same distribution of wetland categories that were present under
the prior 2004 rating system. A comparison sample of the distribution of wetland
categories under the old and new rating systems is provided below (Hruby 2014).
Table 1. Number of Sampled Wetlands in Each Category Based on Their Score for Functions (Hruby 2014).

<table>
<thead>
<tr>
<th>Category</th>
<th>2004 Rating System</th>
<th>Updated Rating System</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>II</td>
<td>52</td>
<td>44</td>
</tr>
<tr>
<td>III</td>
<td>39</td>
<td>49</td>
</tr>
<tr>
<td>IV</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

The substantive changes to the wetland rating system are: 1) a High, Medium, or Low ranking for each function instead of numeric scores; and 2) the opportunity section was replaced with two new sections: landscape potential, and value. The shift to a High, Medium, Low ranking was prompted by a statistical analysis of wetland rating data, which indicated that the rapid-assessment wetland rating tool is not scientifically accurate beyond a qualitative ranking of High, Medium, or Low. The total point range changed from 0-100 to 9-27 (Hruby 2014).

Wetland Buffers
To update and supplement the prior 2005 BAS synthesis Ecology issued, Hruby (2013) reviewed recent publications on wetland buffer functions. The primary conclusions of this 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). The review does not include any buffer width recommendations.

Gap Analysis

Frequently Flooded Areas (Gap Analysis, Section 6)

The city standards must adhere to the FEMA National Marine Fisheries Service Biological Opinion (FEMA BiOp)(NMFS 2008) through the application of reasonable and prudent alternatives to prevent and/or minimize the degradation of channel and floodplain habitat (Ecology 2015). Specifically, the FEMA BiOp requires “changes to implementation of the National Flood Insurance Program (NFIP) in order to meet the requirements of the Endangered Species Act (ESA) in the Puget Sound watershed” (FEMA 2013). Because the NFIP is implemented by FEMA through participation by local jurisdictions that adopt and enforce floodplain management ordinances, FEMA has
delegated responsibility to the local jurisdictions to ensure that development does not adversely affect listed species.

The NFIP standards apply to the Special Flood Hazard Area (SFHA), which covers the mapped one percent chance (100 year) floodplain. However, in its biological opinion, NMFS identified the “Protected Area” as the 100 year floodplain plus the riparian buffer zone (RBZ), which extends 250 feet from the ordinary high water mark, and the CMZ, plus 50 feet. In many areas, the “Protected Area” will extend far beyond the 100 year floodplain. To comply with NFIP, only the 100 year floodplain must be protected. Cities and counties have an independent responsibility to protect any floodplain functions and processes that may extend beyond the 100 year floodplain in order avoid take of ESA listed species. A model ordinance is provided in the BiOp Checklist (FEMA 2010).

To comply with the requirements of the FEMA BiOp, the City may either develop specific floodplain regulations or require habitat assessments for development in the floodway or floodplain. Habitat assessments must evaluate impacts to stormwater, floodplain capacity, and vegetative habitat. Current City code requires that an alteration, construction, development, or activity within a critical area, including flood hazard areas, submit a critical area study prepared by a qualified professional (BMC 19.40.090 through 19.40.130). The code is currently in compliance with the FEMA BiOp process, but could be strengthened by including habitat assessment requirements in the FFA code section. Per Ecology and NMFS recommendations, the City may wish to incorporate specific development regulations to further protect the functions and values of its flood hazard areas. The City’s options for managing development within the floodplain are:

1. Adopt the model ordinance;
2. Develop floodplain regulations that protect floodplain functions on a programmatic basis;
3. Require the completion of a floodplain habitat assessment for any development within the floodplain. Habitat assessments must evaluate impacts to stormwater, floodplain capacity, and vegetative habitat.

Unless the City adopts the model ordinance or develops customized floodplain regulations that are reviewed and approved by FEMA, the third option, also referred to as “Door 3” is the default requirement. Option 1, the model ordinance, would likely represent the most conservative approach to protecting floodplain functions, but it would also be expected to be the most restrictive option in terms of future development and provide the least flexibility in implementation. The second option, or “Door 2,” allows local jurisdictions to establish regulations that recognize local conditions and may...
incorporate programs that enhance floodplain functions into the evaluation of how floodplain functions are maintained. However, FEMA must approve any “Door 2” approach before it is implemented. “Door 3” is the most common approach taken by local jurisdictions.

Ecology also recommends applying standards more stringent than the minimum FEMA-required protections. For example, minimum elevation of new structures should be at least two or three feet above the Base Flood Elevation (BFE), instead of just one foot above.

**Wetlands (Gap Analysis, Section 8)**

Wetlands – Designation and Classification - Applicability (BMC 19.40.300.2) According to CAO review comments provided by Donna Bunten at Ecology, small (less than 1,000 SF) Category III and IV wetlands may be exempted from this chapter, if they are not associated with a riparian area, not part of a wetland mosaic, and do not contain any WDFW identified priority species.


Wetland Performance Standards – Buffers (BMC 19.40.310) Donna Bunten at Ecology recommends adopting wetland buffer widths per the table on page A-6 of the Small Cities Guidance document (Ecology 2012). Buffer widths recommended in that table coincide with recommended buffer widths in Table 10 of the Gap Analysis. Since the 2014 wetland rating system has a different total score range, the habitat point values in the buffer width tables need to be converted. Ecology rating score conversion tables are posted on their website (http://www.ecy.wa.gov/programs/sea/wetlands/ratingsystems/2014updates.html). The habitat score conversions are provided in the table below.

<table>
<thead>
<tr>
<th>2004 Rating Form</th>
<th>Final Habitat Score</th>
<th>2014 Rating Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-36</td>
<td>High</td>
<td>8-9</td>
</tr>
<tr>
<td>20-28</td>
<td>Medium</td>
<td>5-7</td>
</tr>
<tr>
<td>&lt;19</td>
<td>Low</td>
<td>3-4</td>
</tr>
</tbody>
</table>
Please call if you have any questions or if we can provide you with any additional information.

Sincerely,

Nell Lund, PWS
Ecologist
References


Knight, K. 2009. Land Use Planning for Salmon, Steelhead and Trout: A land use planner’s guide to salmonid habitat protection and recovery. WDFW (Washington Department of Fish and Wildlife). Olympia, WA.


