

TECHNICAL MEMORANDUM



Date: July 14, 2015
To: Allison Satter
From: Tess Brandon, Sarah Sandstrom, Stephen Stanley, and Dan Nickel
Project Number: 150414
Project Name: City of Bremerton Comprehensive Plan Update 2016

Subject: City of Bremerton Critical Areas Ordinance: Gap Analysis

The Growth Management Act (GMA) mandates that cities develop policies and regulations to designate and protect critical areas, including wetlands, areas with a critical recharging effect on aquifers used for potable water, frequently flooded areas, geologically hazardous areas, and fish and wildlife habitat conservation areas (Revised Code of Washington [RCW] 36.70A.030(5)).

The GMA further requires that cities periodically review and evaluate their adopted critical areas policies and regulations, and that this review and update process consider and include best available science (BAS). Any deviations from science-based recommendations should be identified, assessed, and explained (Washington Administrative Code [WAC] 365-195-915).

In accordance with the GMA, the City of Bremerton (City) last completed a comprehensive update of its critical areas policies and regulations in 2006. The City's critical areas regulations are codified in Title 20, Land Use, of Bremerton Municipal Code (BMC Chapter 20.14). This code section includes the text from the adopted Critical Areas Ordinance (CAO), Ordinance No. 4965.

The purpose of this memorandum is to provide a review of the City's current CAO, noting gaps where existing regulations may not be consistent with BAS, the GMA, and/or its implementing rules. This document does not attempt to identify every instance where the existing CAO might be amended, but instead focuses on identifying more significant potential amendments. The primary intention of this gap analysis is to help guide the update of the City's CAO.

A secondary purpose of this memorandum is to compare the CAO with relevant sections of the City's Shoreline Master Program (SMP) in order to bring the two regulatory documents into alignment with each other and with BAS. The SMP includes policies and regulations for critical areas located within shoreline jurisdiction. The City completed a comprehensive review and update of its SMP in 2013. The updated

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shoreline critical areas regulations adopt BMC 20.14 by reference, with the exception of certain sections which do not apply and/or which are covered by specific provisions in the SMP. Following adoption of the updated CAO, the City will need to pursue a limited amendment of its SMP to capture the changes made to the CAO.

The following five sections of this memorandum provide a summary of the review and recommended changes to the five main sections of the City's CAO. The sixth section of this memorandum provides recommendations for general provisions which should be revised or added. For those critical areas also addressed in the City's SMP, including wetlands and fish and wildlife habitat conservation areas, we provide a comparison between the relevant CAO and SMP provisions.

Wetlands

To better incorporate BAS into the wetlands code section, several code revisions are recommended (Table 1).

Table 1. Wetlands review summary.

Code Section	Title	Review Comment / Recommendations*
20.14.200 and 20.14.310	Description and Purpose	<ul style="list-style-type: none">Remove reference to state delineation manualReplace with identification and delineation language from WAC 173-22-035 and SMP.
20.14.320	Classification and Designation.	<ul style="list-style-type: none">Reference latest version of rating system
20.14.330	Development Standards - Wetlands	<ul style="list-style-type: none">Consider listing regulated activitiesProvide exemptions for small, isolated Category III and IV wetlands and certain activitiesUpdate buffer width requirements
20.14.340	Mitigation Requirements - Wetlands	<ul style="list-style-type: none">Update mitigation ratios to reflect BAS

* See discussion of comments/recommendations in the subsections below this table.

Definition, Description and Purpose (BMC 20.14.200 and 20.14.310)

BMC 20.14.310(a) and 20.14.200 both refer to the Washington State Wetland Identification and Delineation Manual (1997). Both sections should be updated to include the language from WAC 173-22-035, which states that "Identification of wetlands and delineation of their boundaries... shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplements." This wording is consistent with the wetlands definition in the City's SMP.

The Washington State Department of Ecology (Ecology) model wetlands chapter (Ecology 2012) also recommends the following language: "Wetland delineations are

valid for five years; after such date the City shall determine whether a revision or additional assessment is necessary.”

Classification and Designation (BMC 20.14.320)

BMC 20.14.320 refers to the “Washington State Wetland Rating System for Western Washington (Department of Ecology Publication #04-06-025).” Ecology updated this rating system in June of 2014. The current BAS-based wetland rating system is the *Washington State Wetland Rating System for Western Washington* (Hruby 2014, Ecology publication No. 14-06-029). 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 2. Number of Sampled Wetlands in Each Category Based on their Score for Functions.

Category	2004 Rating System	Updated Rating System
I	13	11
II	52	44
III	39	49
IV	7	7

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 scheme 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. As a result of this change, the total point range changed from 0-100 to 9-27 (Hruby 2014), with nine possible points each for water quality, hydrologic, and habitat functions.

Development Standards – Wetlands (BMC 20.14.330)

BMC 20.14.330(a) through (e) requires that uses in wetlands or wetland buffers demonstrate that the use will not degrade the functions of the wetland. The provisions allow applicants to demonstrate that no feasible alternative locations exist. By not explicitly listing regulated activities, the City puts itself in the position of potentially having to deliberate and argue over each proposed use. We recommend providing a list of regulated activities, and including a caveat that uses not included in the list are subject to an administrative decision as to whether or not critical area review is required. Ecology’s model wetlands chapter provides an example list (Ecology 2012):

B. The following activities are regulated if they occur in a regulated wetland or its buffer:

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1. *The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind.*
2. *The dumping of, discharging of, or filling with any material.*
3. *The draining, flooding, or disturbing of the water level or water table.*
4. *Pile driving.*
5. *The placing of obstructions.*
6. *The construction, reconstruction, demolition, or expansion of any structure.*
7. *The destruction or alteration of wetland vegetation through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated wetland.*
8. *“Class IV – General Forest Practices” under the authority of the “1992 Washington State Forest Practices Act Rules and Regulations,” WAC 222-12-030, or as thereafter amended.*
9. *Activities that result in:*
 - a. *A significant change of water temperature.*
 - b. *A significant change of physical or chemical characteristics of the sources of water to the wetland.*
 - c. *A significant change in the quantity, timing, or duration of the water entering the wetland.*
 - d. *The introduction of pollutants.*

We also recommend providing a list of exempt activities specific to wetlands. BMC 20.14.330(c) exempts only those activities covered under the CAO’s public agency, utility, or reasonable use exceptions. Ecology recommends exempting all isolated Category III and IV wetlands less than 1,000 square feet that are not associated with riparian areas or buffers, are not part of a wetland mosaic, and do not contain habitat identified by WDFW as essential for local populations of priority species. Additional exempt activities in wetlands could include conservation activities, harvesting of wild crops, drilling for utility corridors, enhancement activities, education and research, and normal and routine maintenance (Ecology 2012). Listed exemptions would provide flexibility and administrative relief for City staff, while clarifying requirements for applicants.

Finally, BMC 20.14.330(f)(1) defines standard buffer widths by wetland category (Table 3). Current BAS includes buffer provisions that vary based on land use intensity and/or habitat score in addition to wetland category. The City’s SMP (Section 7.010) adopts standard buffer widths based on habitat score for wetlands in shoreline jurisdiction, but refers to the older wetland rating system (see above). Ecology updated its recommended standard buffer widths to the new rating system in June of 2015. Table 4 shows these BAS-based buffers, which vary according to wetland type (e.g. estuarine) and/or habitat score (on a range of 3 to 9, with 9 representing high habitat function).

Table 3. Standard wetland buffers in current City code.

Wetland Category	Standard Buffer (feet)
I	200
II	100
III	75
IV	50

Table 4. BAS-based standard buffer widths (Ecology 2015).

Wetland Category and Type	Buffer width (in feet) based on habitat score			
	3-4	5	6-7	8-9
I: Estuarine wetlands	200			
I: All others	100	140	220	300
II: Estuarine wetlands	150			
II: All	100	140	220	300
III: All	80	140	220	300
IV: All	50			

The standard buffer widths in Table 4 were developed based on BAS for use in small cities, where land use intensity, and associated wetland impacts, are generally moderate to high. For those projects that can mitigate the impacts and disturbances associated with surrounding land use, required buffer widths may be reduced. Table 5 lists impact-minimization measures which, when implemented where applicable, may allow an applicant to reduce the standard buffer widths in Table 4 by up to 33 percent (Ecology 2012). This approach provides flexibility for applicants while resulting in higher-functioning buffers that are sensitive to existing wetland function. We recommend that the City update its buffer provisions to adopt the new BAS-based buffer widths in Table 4 together with the optional impact-minimization measures in Table 5.

Table 5. Measures to minimize impacts to wetlands (Ecology 2012).

Disturbance	Required Measures to Minimize Impacts
Lights	<ul style="list-style-type: none"> • Direct lights away from wetland
Noise	<ul style="list-style-type: none"> • Locate activity that generates noise away from wetland • If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source • For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10' heavily vegetated buffer strip immediately adjacent to the outer wetland buffer
Toxic runoff	<ul style="list-style-type: none"> • Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered • Establish covenants limiting use of pesticides within 150 ft of wetland • Apply integrated pest management

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Disturbance	Required Measures to Minimize Impacts
Stormwater runoff	<ul style="list-style-type: none"> • Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized flow from lawns that directly enters the buffer • Use Low Intensity Development techniques where appropriate (per PSAT publication on LID techniques)
Change in water regime	<ul style="list-style-type: none"> • Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns
Pets and human disturbance	<ul style="list-style-type: none"> • Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion • Place wetland and its buffer in a separate tract or protect with a conservation easement
Dust	<ul style="list-style-type: none"> • Use best management practices to control dust
Disruption of corridors or connections	<ul style="list-style-type: none"> • Maintain connections to offsite areas that are undisturbed • Restore corridors or connections to offsite habitats by replanting

Mitigation Requirements – Wetlands (BMC 20.14.340)

BMC 20.14.340(f) defines required mitigation ratios for “creation or restoration that is in-kind, is on-site, in the same category, is timed prior to or concurrent with alteration, and has a high probability of success.” BMC 20.14.340(g) defines larger ratios for enhancement as mitigation. The ratios in these sections align closely with BAS where they are clearly defined. For added clarity, we recommend presenting the mitigation ratios in a table. Table 6 below is taken from the City’s SMP, and contains ratios recommended by Ecology in its 2012 *Wetlands Guidance for Small Cities: Western Washington Version*.

Table 6. Mitigation ratios for wetlands.

Wetland Category	Wetland Mitigation Type and Replacement Ratio			
	Creation	Re-establishment	Rehabilitation	Enhancement Only
Category I	6:1	6:1	12:1	Not allowed
Category II	3:1	3:1	6:1	12:1
Category III	2:1	2:1	4:1	8:1
Category IV	1.5:1	1.5:1	3:1	6:1

Comparison to SMP

The City’s SMP includes provisions for wetland buffers and mitigation ratios for wetlands in shoreline jurisdiction. These provisions were updated in 2013, and in many cases provide a source of BAS-based language that can be applied in the CAO. Table 7 presents a comparison between the CAO and the SMP and includes recommendations for improving consistency and coordination between the two sets of regulations.

Table 7. Comparison of CAO and SMP provisions for wetlands and recommendations for improving consistency.

2006 CAO Section	2013 SMP	Recommended Change to CAO	Recommended Change to SMP
BMC 20.14.200 and .310 - definition of "Wetlands"	SMP Chapter 3, Definitions – refers to approved federal manual and applicable regional supplements.	Update CAO to be consistent with SMP language.	None
BMC 20.14.320 - wetland rating	SMP 7.010 Regulations (a) adopts CAO section by reference	Update CAO to adopt new wetland rating system.	None
BMC 20.14.330(f) – wetland buffers	SMP 7.010 Regulations (b) establishes standard buffer widths based on 2012 Ecology guidance.	Update CAO to be consistent with SMP buffer widths but using the 2015 rating system (see Table 3 above).	Remove exclusion of 20.14.330(f)(1) from 7.010(a); remove 7.010(b) Wetland Buffers
BMC 20.14.340(f) – mitigation ratios BMC 20.14.340(g) – wetlands enhancement as mitigation	SMP 7.010 Regulations (c) establishes mitigation ratios for creation, reestablishment, rehabilitation, and enhancement that align with BAS.	Update CAO to be consistent with SMP numbers and approach (table format), but maintain provisions that enable the Director to increase ratios under certain circumstances (20.14.340(f)(2)).	None

Critical Aquifer Recharge Areas

Provisions that protect the functions and values of critical aquifer recharge areas (CARAs) in the City of Bremerton are contained in BMC Sections 20.14.400 through 20.14.450. BAS-based protection measures include identifying and categorizing CARAs, identifying potential sources of contamination, assessing vulnerability of water resources, imposing protections, and managing CARA withdrawals (The Watershed Company 2014). Current management of CARAs in the City is in step with BAS recommendations, and no changes are recommended.

Frequently Flooded Areas

Table 8 summarizes recommended changes to the CAO to better incorporate BAS related to frequently flooded areas.

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Table 8. Frequently Flooded Areas review summary.

Code Section	Title	Review Comment / Recommendations*
20.14.510	Description and Purpose	<ul style="list-style-type: none">Revise to incorporate protection of functions and values
20.14.520	Classification and Designation	<ul style="list-style-type: none">Consider referring to BMC 17.60 for consistent definition of special flood hazard areas
20.14.530	Development Standards	<ul style="list-style-type: none">Require a habitat assessment for development in the floodway or floodplain

* See discussion of comments/recommendations in the subsections below this table.

Description and Purpose (BMC 20.14.510)

BMC 20.14.510 defines the purpose of the City’s frequently flooded areas regulations to “promote public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas caused by flooding.” Under the GMA, regulations of frequently flooded areas exist not only to reduce flood risk, but also to protect the functions and values of floodplains. We recommend revising the existing purpose statement to reflect this dual purpose.

Classification and Designation (BMC 20.14.520)

BMC 20.14.520 defines flood hazard areas as those areas designated as 100-year floodplain by the Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program (NFIP). The rest of the frequently flooded areas section in the CAO refers to BMC Chapter 17.60, Floodplain Management, for regulation of development in frequently flooded areas. BMC 17.60.070 provides a more thorough definition of special flood hazard areas. For consistency between the two code sections and to avoid confusion, we recommend referring to this definition for designation of frequently flooded areas in BMC 20.14.520.

Development Standards (BMC 20.14.530)

In 2008, the National Marine Fisheries Service (NMFS) found that implementation of the National Flood Insurance Program in the Puget Sound region jeopardizes the continued existence of federally threatened salmonids and resident killer whales. As a result, in its 2008 Biological Opinion (FEMA BiOp), NMFS established Reasonable and Prudent Alternatives to ensure that development within the Special Flood Hazard Area (100-year floodplain), floodway, channel migration zone, and riparian buffer zone do not adversely affect water quality, water quantity, flood volumes, flood velocities, spawning substrate, or floodplain refugia for listed salmonids. Local governments must adhere to the FEMA BiOp in their protection of channel and floodplain habitat by either developing specific floodplain regulations or requiring habitat assessments for

development in the floodway and floodplain. Habitat assessments must evaluate impacts to stormwater, floodplain capacity, and vegetative habitat.

In accordance with the expanded purpose of frequently flooded areas regulations, as described above, the City should consider expanding BMC 20.14.530 to include provisions that protect the functions and values of frequently flooded areas. Specifically, to comply with the 2008 FEMA BiOp, the City should require a habitat assessment for development in the floodplain.

Geologically Hazardous Areas

Careful planning and engineering are key to preventing and reducing the potential magnitude of geologic hazards, such as landslides and seismic hazards (The Watershed Company 2014). Provisions that protect human life and property from potential risks related to development on or near geologically hazardous areas in the City of Bremerton are contained in BMC Sections 20.14.600 through 20.14.660. The code as written reasonably safeguards against potential hazards by emphasizing avoidance and requiring buffers and rigorous professional design standards. This code section is in agreement with BAS, and no changes are recommended.

Fish and Wildlife Habitat Conservation Areas

To better incorporate BAS into the fish and wildlife habitat conservation areas (FWHCAs) code section, several code revisions are recommended (Table 9).

Table 9. Fish and wildlife habitat conservation areas review summary.

Code Section	Title	Review Comment / Recommendations*
20.14.200 and 20.14.720	Classification and Designation of Fish and Wildlife Habitat Conservation Areas.	<ul style="list-style-type: none"> • WAC reference in definition of “fish and wildlife habitat conservation areas” should be updated. • Improve clarity and consistency in whether Priority Habitats and Species are included in FWHCAs. • Update reference to Shared Strategy Process for Puget Sound
20.14.730	Development Standards.	<ul style="list-style-type: none"> • Amend BMC 20.14.730 for consistency with Section 7.010 of the Bremerton SMP • Remove references to Bald Eagle Protection Rules. • Consider amending the threshold for developing a HMP to include buffer distances for Class II Fish and Wildlife Areas and incorporating recommended buffer distances into the threshold.

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* See discussion of comments/recommendations in the subsections below this table.

Fish and wildlife habitat conservation areas – Definition, Classification and Designation (BMC 20.14.200 and 20.14.720)

The WAC reference in the definition of FWHCAs should be corrected to reflect the more detailed GMA description of “fish and wildlife habitat conservation areas” in WAC 365-190-130.

The City’s existing definition of FWHCAs includes “(b) Priority Habitat Species and species of local importance, including but not limited to areas designated as priority habitat by the Washington Department of Fish and Wildlife.” State-designated Priority Habitats and Species include a broader suite of species and habitats than are required by the WAC or addressed in BMC 20.14.720, Classification and Designation of Fish and Wildlife Habitat Conservation Areas. In order to improve the clarity of the applicability of FWHCA standards, we recommend revising the definition to exclude reference to Priority Habitat Species.

BMC 20.14.720(d) and (e) define Class I and II Fish and Wildlife Conservation Areas to include federal and/or state listed endangered, threatened, and sensitive species (Class I) and habitats for state listed candidate and monitor species (Class II). These designations are subject to change, and the City relies on qualified fisheries and wildlife biologists to provide lists of designated species on a project basis. Table 10 below provides a list of those species and habitats currently identified as Class I and Class II Fish and Wildlife Conservation Areas.

Table 10. List of Endangered, Threatened, Sensitive, Candidate, and Monitor species for consideration in Class I and II Fish and Wildlife Conservation Areas.

	Common Name	State Status	Federal Status
Federal- and/or State-listed Endangered, Threatened and Sensitive species (subject to change) – Class I Fish and Wildlife Conservation Areas			
Fish	Bocaccio Rockfish	Candidate	Endangered
	Bull Trout/ Dolly Varden	Candidate	Threatened
	Canary Rockfish	Candidate	Threatened
	Chinook Salmon	Candidate	Threatened
	Chum Salmon	Candidate	Threatened
	Eulachon	Candidate	Threatened
	Green Sturgeon		Threatened
	Steelhead	Candidate	Threatened
	Yelloweye Rockfish	Candidate	Threatened
Birds	Bald Eagle	Sensitive	Species of Concern
	Common Loon	Sensitive	

	Common Name	State Status	Federal Status
	Marbled Murrelet	Threatened	Threatened
	Peregrine Falcon	Sensitive	Species of Concern
	Northern Spotted Owl	Endangered	Threatened
	Yellow-billed Cuckoo		Threatened
Mammals	Blue Whale	Endangered	Endangered
	Gray Whale	Sensitive	
	Humpback Whale	Endangered	Endangered
	Southern Resident Killer Whale	Endangered	Endangered
	Steller Sea Lion	Threatened	Threatened
State-listed Candidate and Monitor Species List (subject to change) – Class II Fish and Wildlife Conservation Areas			
	Black Rockfish	Candidate	
	Brown Rockfish	Candidate	Species of Concern
	China Rockfish	Candidate	
	Copper Rockfish	Candidate	Species of Concern
	Greenstriped Rockfish	Candidate	
	Pacific Cod	Candidate	Species of Concern
	Pacific Hake	Candidate	Species of Concern
	Quillback Rockfish	Candidate	Species of Concern
	Redstripe Rockfish	Candidate	
	Sockeye Salmon	Candidate	
	Tiger Rockfish	Candidate	
	Walleye Pollock	Candidate	Species of Concern
	Widow Rockfish	Candidate	
	Yellowtail Rockfish	Candidate	
Amphibians	Dunn's Salamander	Candidate	
	Western Toad	Candidate	Species of Concern
	Van Dyke's Salamander	Candidate	Species of Concern
Birds	Brandt's Cormorant	Candidate	
	Common Murre	Candidate	
	Golden Eagle	Candidate	
	Northern Goshawk	Candidate	Species of Concern
	Pileated Woodpecker	Candidate	
	Purple Martin	Candidate	
	Vaux's Swift	Candidate	
	Western grebe	Candidate	
	Black Swift	Monitor	
	Caspian Tern	Monitor	
	Great Blue Heron	Monitor	
	Great Egret	Monitor	

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	Common Name	State Status	Federal Status
	Green Heron	Monitor	
	Horned Grebe	Monitor	
	Osprey	Monitor	
	Snowy Owl	Monitor	
Mammals	Pacific Harbor Porpoise	Candidate	
	Townsend's Big-eared Bat	Candidate	Species of Concern
	Dall's porpoise	Monitor	
	Harbor Seal	Monitor	
Invertebrates	Olympia Oyster	Candidate	
	Queen Charlotte's Copper (formerly Makah Copper)	Candidate	Species of Concern

Finally, BMC 20.14.720(d)(2) refers to the Shared Strategy Process for Puget Sound, which is no longer an active organization. The provision designates “areas targeted for preservation by the federal, state, and/or local government which provide fish and wildlife habitat benefits” as Class I Fish and Wildlife Conservation Areas. This goes beyond the minimum requirements for designation as FWHCAs under the WAC. Additionally, the provision may be difficult to administer, particularly where “areas targeted” are not specific, clear, or consistent with the City of Bremerton’s planning objectives. Instead, we recommend removing this provision and addressing regional and local restoration planning efforts through policy language in the City’s Comprehensive Plan.

Development Standards (BMC 20.14.730)

The existing CAO establishes buffer and setback widths and buffer standards for waterbodies and watercourses. Based on existing BAS, these buffer widths are expected to maintain functions along the City’s waterbodies and watercourses (The Watershed Company and Parametrix 2014). Section 7.010(d) of the Bremerton SMP includes buffer and setback standards for shoreline areas that supersede and/or amend the buffer and setback standards applicable to Shorelines of the State. Accordingly, BMC 20.14.730(d) Table 1 should be amended to refer to the SMP for buffer and setback standards applicable to all Shorelines of the State.

BMC 20.14.730(a)(3) discusses the Bald Eagle Protection Rules. These rules have been amended, and now apply only if bald eagles are listed as threatened or endangered by Washington State. Presently, bald eagles are listed as a state sensitive species; therefore, the Bald Eagle Protection Rules do not apply. Additionally, BMC 20.14.730(e)(1) requires approval of a Bald Eagle Management Plan by WDFW; this requirement also no longer applies. We suggest removing all provisions related to the Bald Eagle Protection Rules and Bald Eagle Management Plans. It may be worthwhile to note that although there is no longer a state Bald Eagle Management Plan requirement, landowners must still

comply with standards for Class I Fish and Wildlife Areas and the federal Bald and Golden Eagle Protection Act.

In the current CAO, a habitat management plan (HMP) is required when a Class I Fish and Wildlife Conservation Area is on-site or within 200 feet of a development, or when a development is within a Class II Fish and Wildlife Conservation Area. The recommended nest-site buffers for a number of the Class I and Class II species (e.g. bald eagle, great blue heron, peregrine falcon, pileated woodpecker) exceed 200 feet; therefore, the HMP criteria may not be adequate to protect those species. We recommend that a threshold distance be applied to the trigger for both Class I and Class II HMPs. That threshold could be 200 feet or the applicable distance recommended by WDFW management recommendations (Larsen et al. 2004), whichever is greater.

Finally, BMC 20.14.730(p), Other Allowed Uses in Fish and Wildlife Conservation Areas, states that “other activities may be allowed using the standard for a category II wetland buffer.” This reference is confusing because there is not a specific reference to allowed use standards for a category II wetland buffer elsewhere in the code. It seems that the intent of the provisions may have been to reference BMC 20.14.330(d), which describes allowed uses in category II and III wetlands, but not specifically in the wetland buffers. A specific code section should be referenced and text amended to improve the clarity of this code provision.

Comparison to SMP

As described above, the SMP includes buffer and setback standards for shoreline areas that should be referred to in the CAO. Other recommendations for improving consistency and coordination between the CAO and the SMP are provided in Table 11.

Table 11. Comparison of CAO and SMP provisions for FWHCAs and recommendations for improving consistency.

2006 CAO Section	2013 SMP	Recommended Change to CAO	Recommended Change to SMP
BMC 20.14.730(d), Table 1, Water Type Buffer Standards	SMP 7.010(d)(1) establishes distinct shoreline buffers and setbacks	Reference the SMP for buffer and setback widths for all Shorelines of the State.	None
BMC 20.14.730(d)(4), Buffer Averaging	SMP 7.010(d)(5) allows for buffer averaging dependent on adjacent development	Reference additional buffer averaging criteria on Shorelines of the State.	None
BMC 20.14.730(d)(5), Buffer Reduction	SMP 7.010(a) excludes this CAO provision from application	Establish a minimum buffer width of 10 feet after buffer reduction (in addition to a net	Remove exclusion of 20.14.730(d)(5) from 7.010(a).

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2006 CAO Section	2013 SMP	Recommended Change to CAO	Recommended Change to SMP
	in the SMP. SMP 7.010(d)(4) establishes a minimum 10-foot buffer provided HMP demonstrates a net improvement.	improvement in functions).	
BMC 20.14.730(d)(6 &7), Stormwater Management Facilities and Low Impact Development Facilities	SMP 7.010(f) specifies that stormwater facility provisions only apply to buffers wider than 100 feet.	Incorporate language from the SMP into the CAO that only allows for stormwater facilities in the outer portion of buffers that are over 100 feet in width. Apply the same standard for low impact development facilities.	Remove 7.010(f).
BMC 20.14.730 (d)(8) Habitat Conservation Area Buffers	SMP 7.010(a) excludes this CAO provision from application in the SMP.	Specify that this provision applies only to Type F, Np, and NS streams.	Remove exclusion of 20.14.730(d)(8) from 7.010(a).

General Provisions

BMC 20.14.630(e) and (f) include provisions for the elimination of hazard trees and for vegetation thinning, respectively. Outside of buffer provisions, these are the only vegetation management provisions in the CAO. However, they apply only to geologically hazardous areas. We recommend moving these sections into a new general provisions section (20.14.1XX) in order to apply them to all critical areas in the City.

The City’s SMP contains more rigorous vegetation management provisions that define removal conditions and replacement ratios for trees and other vegetation in shoreline jurisdiction (SMP Section 7.020 Regulations). We recommend that the City modify these regulations to apply to all critical areas in the City and incorporate them into the new general provisions section described above.

References

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