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YAKIMA CRITICAL AREAS ORDINANCE (COA) PERIODIC UPDATE
GAP ANALYSIS &
BEST AVAILABLE SCIENCE REVIEW

Submitted to
City of Yakima, WA

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1.0 INTRODUCTION

Pursuant to the Growth Management Act (GMA) and the Revised Code of Washington (RCW) 36.70A.170, local jurisdictions must establish a critical areas ordinance incorporating the designation and protections of critical areas, including wetlands, critical aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas (RCW 36.70A.030(12)). Other natural resource lands as noted in RCW 36.70A.170 are intermittently discussed in this report to ensure compliance.

This report addresses gaps and inconsistencies that call for updates to the City of Yakima's Critical Area Ordinance (CAO) to comply with the required GMA's process for the 2026 Comprehensive Plan Periodic Update cycle. The report also incorporates Best Available Science (BAS) guidance as directed by RCW 36.70A.172.

The Department of Commerce (Commerce) Critical Area Checklist (May 2024) is attached to this report for reference as **Appendix A**. On the Critical Area Checklist applicable code sections of the City of Yakima's CAO are referenced and are also referenced throughout this report. Recommendations made as a result of this Gap Analysis are shown in tables under each section.

Table 1. Yakima CAO, Chapter 15.27 Contents

Chapter Part	Code Sections
Part One. General Provisions	15.27.100 – 15.27.170
Part Two. Definitions	15.27.200
Part Three. Application and Review Procedures	15.27.300 – 15.27.321
Part Four. Flood Hazard Areas	15.27.400 – 15.27.437
Part Five. Fish and Wildlife Habitat Conservation Areas	15.27.500 – 15.27.517
Part Six. Wetlands	15.27.600 – 15.27.605
Part Seven. Geologically Hazardous Areas	15.27.700 – 15.27.704

1.1 Correlation to Shoreline Master Program (SMP) & Riparian Protection Areas

Pursuant to WAC 173-26-221(1) and effective through the establishment of the Washington State Shoreline Management Act (SMA), Shoreline Management Programs (SMP) are required to contain policies and regulations for the management of critical areas, as designated in RCW 36.70A.170(1)(d), that are located with shorelines of the state. The resulting SMP policies and regulations are provided to ensure no net loss of ecological function or value within the shorelines of the state. For continuity, references to the City of Yakima's SMP are also included on the attached Critical Areas Checklist (**Appendix A**).

A comprehensive compliance review of the City of Yakima's SMP is not included in the current periodic updated efforts regarding the Yakima's Comprehensive Plan and Critical Areas Ordinance. Alternatively, a comparative review of the Washington Department of Fish & Wildlife's (WDFW) Riparian Management Zone Checklist was made to support of continuity between the subject COA gap analysis and future compliance review efforts of the City to Yakima's SMP. Additionally, a separate technical memorandum will be drafted in relation to the Washington Department of Fish and Wildlife (WDFW) riparian management guidance, specifically Riparian Management Zones (RMZs) and Site Potential Tree Height (SPTH), including consideration of alternatives used by other local jurisdictions where implementation of BAS warrant a flexible approach. For more details, see the

WDFW Riparian Management Zone (RMZ) Checklist attached as **Appendix B**, as well as the separately issued technical memorandum for WDFW Riparian Management Guidance.

2.0 CRITICAL AREAS – OVERALL REQUIREMENTS

Table 2. Overall Recommendations

Code Section	Reason/Consistency	Recommendation
15.27.150(B) – Applicability	Consistency & Clarity	Consider revising ‘relevant regulations’ to include “as amended”.
15.27.200 – Definitions Generally.	Consistency & Clarity	Consider moving the definition for Geologically Hazardous Areas from YMC 15.27.700(A) – Purpose and intent, to YMC 15.27.200.
15.27.314 – Critical Area Report Requirements	Consistency with WAC 365-195-915(c)	Consider adding language that proclaims required criteria for departing from science-based recommendations.
15.27.314(j) – Critical Area Report Requirements	WAC 197-11-768	Consider adding language noting that critical area reporting and analysis must utilize mitigation sequencing as shown in YMC 15.27.307 (Mitigation Requirements).
15.27.315 – Supplemental report requirements for specific critical areas.	Clarity and Continuity	Consider splitting and moving supplemental requirements into their respective critical area subsections.
15.27.605 – Compensatory mitigation	Clarity & Reduce Repetitiveness	Consider removing mitigation sequencing language in YMC 15.27.605 (Compensatory Mitigation.) and referencing back to existing YMC 15.27.307 (Mitigation Requirements.)

2.1 Applicability

Applicability of Chapter 15.27 in the Yakima Municipal Code (YMC) is adequately addressed, but it is unclear to the average reader if amended versions of the critical areas ordinance and flood hazard ordinance are also applicable. While each of these ordinances have legally binding adoption and/or effective dates, the removal of specific dates of ordinances under ‘relevant regulations’ (YMC 15.27.150(B) supports consistency and continuity.

Recommendation: Consider clarifying under YMC 15.27.150(B) that amended versions of the listed ordinances are applicable (“as amended”).

2.2 Designation

The designation of Critical Areas within the Yakima Municipal Code (YMC) is adequately addressed in Chapter 15.27 – Part One General Provisions, where the City of Yakima’s authority, purpose, intent, and applicability is expressed in accordance with RCW 36.70A.060.

2.3 Definitions

The YMC 15.27.200 contains applicable designated critical area definitions for Wetlands, Critical Aquifer Recharge Area, Fish & Wildlife Habitat Conservation, and Special Flood Hazard Area. For consistency and consolidation, consider moving the definition for Geologically Hazardous Areas from YMC 15.27.700(A) – Purpose and intent, to YMC 15.27.200.

YMC 15.27.200:

- “Wetland” means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands.
- “Critical aquifer recharge area” means an area with a critical recharging effect on an aquifer(s) used for potable water or areas where a drinking water aquifer is vulnerable to contamination that would affect the potability of the water.
- “Fish and wildlife habitat conservation” means land management for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created. This does not mean maintaining all individuals of all species at all times, but it does mean not degrading or reducing populations or habitats so that they are no longer viable over the long term. Counties and cities should engage in cooperative planning and coordination to help assure long-term population viability.
- “Special flood hazard area” means the land in the floodplain identified by the Federal Emergency Management Agency that is subject to a one percent or greater chance of flooding in any given year, commonly known as the one-hundred-year floodplain.

YMC 15.27.700:

- “A. Geologically hazardous areas include those areas susceptible to erosion, sliding, earthquake, or other geological events. These areas pose a threat to the health and safety of the city of Yakima’s citizens when incompatible development is sited in significantly hazardous areas. When mitigation is not feasible, development within geologically hazardous areas should be avoided.”

2.4 Protection

General protective measures for critical areas are expressed in YMC 15.27.321, with additional protective measures also expressed in each corresponding critical area’s Part subsection of the YMC Chapter 15.27 as follows:

- Part Four. Flood Hazard Areas – Article II. Flood Hazard Protection Standards,
 - YMC 15.27.407-15.27.408,
- Part Five. Fish and Wildlife Habitat Conservation Areas – Article I. Introduction,
 - YMC 15.27.501,
- Part Six. Wetlands,
 - YMC 15.27.602,
- Part Seven. Geologically Hazardous Areas,

- YMC 15.27.702,
- Part Eight. Critical Aquifer Recharge Areas (CARA),
 - YMC 15.27.820.

Critical Area Reports are a founded methods of ensuring protective measures are considered, assessed, and/or implemented according to the purposes and standards for the Chapter.

Recommendation: To support clarity and continuity, consider splitting and moving YMC 15.27.315 (Supplemental report requirements for specific critical areas.) to their respective and associated critical areas section within the Chapter.

2.5 Best Available Science

The inclusion of BAS consistency is appropriately referenced in YMC 15.27.150 – Science and Protection of Anadromous Fish. Additional locations within the CAO include:

- Qualified professional to prepare the report consistent with BAS,
 - YMC 15.27.314(B) – Critical areas report requirements,
- Fish and Wildlife Habitat Conservation Areas,
 - YMC 15.27.500(A), and YMC 15.27.501(2),
- Wetland Buffer Requirements and Alternative Mitigation Plans,
 - YMC 15.27.604(A), and YMC 15.27.605(I)(7).

Recommendation: In accordance with WAC 365-195-915(c), consider adding language that proclaims required decision criteria for any non-science-based information used as a basis for recommending protection of critical area functions and values, and for departing from science-based critical area policies and regulations.

2.6 No Net Loss

‘No Net Loss’ provisions ensure ecological function remains unchanged over time, preventing new adverse impacts from development. When impacts are proposed, mitigation sequencing should be implemented to ensure corrective measures, monitoring, and compensatory mitigation measures offset when/where critical area functions and values are harmed or impacted by development activity. Accordingly, YMC 15.27.130 addresses the allowance of development options within designated critical areas where no net loss of function and value are obtainable, and no incompatibilities are present.

The YMC sections 15.27.314 through 15.27.321 address the avoidance of potential adverse impacts through critical area reporting criteria, performance measures for site delineation and mitigation plans, and declaration of the administrative official’s authority to reject or request revisions in reporting when critical area impacts are incomplete, inaccurate, or not fully addressed. Mitigation sequencing is mentioned in YMC 15.27.315(B)(4)(b) (Supplemental report requirements for specific critical areas.) regarding wetland critical area reporting, YMC 15.27.317(C)(3) (Adjustments) regarding vegetative buffer averaging, YMC 15.27.509(N) (General policies and standards.) regarding activity within a FWHCA, and then fully repeated and referenced under YMC 15.27.605 (Compensatory Mitigation). Although reporting criteria, performance measures, mitigation sequencing, and authority to require reassessment of impacts are mentioned, existing language under YMC 15.27.314 does not clearly depict the use of mitigation sequencing when mitigation is required for all critical areas (Ecology, 2022)

Recommendation: Consider adding language in YMC 15.27.314 (Critical area report requirements.) that all critical area reporting should present mitigation sequencing in accordance with YMC 15.27.307 (Mitigation requirements.) when mitigation is required.

Recommendation: Consider removing mitigation sequencing language in YMC 15.27.605 (Compensatory Mitigation.) and referencing back to existing YMC 15.27.307 (Mitigation Requirements.)

2.7 Reasonable Use Exception

In cases where adverse impacts to critical areas would presume no reasonable use of a property, a Reasonable Use Exception permit review process is noted in YMC 15.27.318.

3.0 FREQUENTLY FLOODED AREAS

Table 3. Floodplains Recommendations

Code Section	Reason/Consistency	Recommendation
YMC 15.27.315(D) & YMC 15.27.418(H)	WA State Model Ordinance (Ecology, 2021)	Consider adding provisions requiring an elevation Certificate for projects that may affect the floodplain or require a hydrologic and hydraulic (no-rise) study
YMC 15.27.408(A) – Specific Standards	Federal Flood Risk Management Standards, Exec. Order #13690	Consider increasing freeboarding to a two-foot above BFE for new or substantially improved residential structures
Article III – Floodway Fringe Uses & Article IV – Floodway Uses	WA State Model Ordinance (Ecology, 2021)	Consider re-evaluation of floodway fringe uses and floodway uses according to the WA State Model Ordinance and FEMA regulations

3.1 Definition & Classification

Special Flood Hazard Areas are defined and designated through YMC 15.27.200, with a supplemental reporting requirements provision in YMC 15.27.315 noting an engineering report to be prepared by a licensed engineer for establishing any new flood elevations.

3.2 Protection

The City updated YMC 15.27 Part Four (Flood Hazard Areas) in 2021 (Ord. 2021-021), amending and adding sections related to the identification and establishment of flood hazard areas (YMC 15.27.400), Methods of Reducing Flood Losses (YMC 15.27.403), and amending sections related to Penalties, Liabilities, Variances, New Construction, General Standards for Construction Techniques, Floodproofing Certificates, Storage of Materials, Critical Facilities, Livestock Sanctuary Areas, and Specific Standards for Residential and Nonresidential Construction, Manufactured Homes, Enclosed Areas, areas with or without established base flood elevations / floodways, Shallow Flooding Areas, Structure Drainage, Recreational Vehicles, and Permit Application / Review Process.

Yakima County adopted The Upper Yakima River Comprehensive Flood Hazard Management Plan in 1998, as amended in 2007 and 2018, in which the study area includes the majority of the City of Yakima's jurisdiction. The City of Yakima has also adopted the City of Yakima Hazard Mitigation Plan in 2015 as an attachment to the Yakima County Multi-jurisdictional Hazard Mitigation Plan. The adoption and attachment of the city-specific hazard mitigation plan supports the city's continued effort to be part of the National Flood Insurance Program allowing for federal funding eligibility. The city also provides funding for community outreach and education through the Yakima County Flood Control District.

3.3 Freeboarding

Integrated Floodplain Management is an approach method for acknowledging collaboration based on shared values across the many types of ecological and economic benefits of managing floodplains. Most commonly notable, this approach supports the combined effort in reduction of flood damage, support for riparian habitats, and the preservation of agriculture and open spaces. Resiliency practices further support this effort through minimizing encroachments within floodways and floodplains, as well as bolstering design standards to maximize structural integrity during and after a flood event.

Recommendation: Consider increasing freeboarding to a two-foot above BFE for new or substantially improved residential structures, providing for added resilience during future flood conditions or extreme weather events. (YMC 15.27.408(A) – Specific Standards).

3.4 Floodway Fringe / Floodway Uses

Portions of the floodplain that are inundated by floodwater but no within a defined floodway are considered temporary storage for floodwaters and referred to as floodway fringe areas. These areas are predominantly identified through the use of BFEs, as depicted in city GIS databases. Areas identified with BFEs must demonstrate that the cumulative effects of the proposed development combined with other existing and anticipated development cannot increase the base flood by more than one foot anywhere within the community.

Articles III & IV of Part Four of the YMC Chapter 15.27 reference permitted and prohibited uses regarding floodway fringe areas and floodways. The language in both articles is very similar to each other but suggest opposing protective measures not aligned with the WA State Model Ordinance for floodplain management (Ecology, 2021). Article III does not permit substantial residential improvements when located in the floodway fringe area without a hydrologic and hydraulic (no-rise) study, while this is commonly applied as floodway regulations. Article IV permits mining, utility lines, roads, and water dependent utilities within the floodway without a hydrologic and hydraulic (no-rise) study, when these studies are a primary protective measure for these uses within the floodway.

Recommendation: Consider re-evaluation of floodway fringe uses and floodway uses according to the WA State Model Ordinance and FEMA regulations for applicability permitted and prohibited development activity.

Recommendation: Consider adding provisions requiring an elevation certificate for projects that may affect the floodplain or require a hydrologic and hydraulic (no-rise) study (YMC 15.27.315(D) & YMC 15.27.418(H)).

4.0 FISH & WILDLIFE HABITAT CONSERVATION AREAS (FWHCAs)

Table 4. FWHCA Recommendations

Code Section	Reason/Consistency	Recommendation
15.27.150 – Science and Protection of Anadromous Fish	Clarity	Consider adding reference to consultation of federal, state, and regional salmon recovery plans.
15.27.315(A)(I) – Supplemental Report Requirements for Specific Critical Areas	Update Terminology	Consider revising ‘habitat and native vegetation conservation strategy’ to Habitat Management Plan.
15.27.502(3) – Designation	Clarity	Consider specifying when a Critical Area Report is required under this critical area designation.
15.27.502 – Designation	Clarity	Consider noting Sensitive Fish Species listed in the Natural Environment Element of the Comprehensive Plan.
15.27.505 – Water Typing System	WAC 222-16-030	Update from current Interim Water Typing System classifications (WAC 222-16-031) to Permanent Water Typing System classifications (WAC 222-16-030).
15.27.507 – Mapping	Clarity	Consider revising GIS geodatabase nomenclature from ‘wildlife priority habitats’ to Priority Habitat Species.
15.27.507(B) – Mapping	Clarity	Consider including a reference to WDFW PHS informational maps.
Article V. Land Modification Development Standards	RCW 36.70A.570	Consider addressing forest practices by providing protection measures for forested ecosystems in relations to land-disturbing activities.

4.1 Classification

FWHCAs provide resources and habitat sufficient to support viable fish and wildlife populations over the long term (WAC 365-190-130). These areas are critical for preserving biodiversity, maintaining ecological connectivity, and supporting salmonid survival across all life stages. Functions provided by riparian habitats include shade and temperature regulation, large woody material recruitment, nutrient cycling, bank stabilization, water quality protection, and wildlife movement corridors.

4.1.1 Definitions

YMC 15.27.200:

- *“Priority habitat” means a habitat type with unique or significant value to one or more species. An area classified and mapped as priority habitat must have one or more of the following attributes: comparatively high fish or wildlife density, comparatively high fish or wildlife species diversity, fish spawning habitat, important wildlife habitat, important fish or wildlife seasonal range, important fish or*

wildlife movement corridor, rearing and foraging habitat, refuge, limited availability, high vulnerability to habitat alteration, unique or dependent species, or shellfish bed. A priority habitat may be described by a unique vegetation type or by a dominant plant species that is of primary importance to fish and wildlife. A priority habitat may also be described by a successional stage. Alternatively, a priority habitat may consist of a specific habitat element (such as talus slopes, caves, or snags) of key value to fish and wildlife. A priority habitat may contain priority and/or nonpriority fish and wildlife.

- “Priority species” means species requiring protective measures and/or management guidelines to ensure their persistence at genetically viable population levels. Priority species are those that meet any of the criteria listed below:
 - A. *Washington State (State) Listed or State-Proposed Species.* State-listed species are those native fish and wildlife species legally designated as endangered (WAC 232-12-014), threatened (WAC 232-12-011), or sensitive (WAC 232-12-011). State-proposed species are those fish and wildlife species that will be reviewed by WDFW (POL-M-6001) for possible listing as endangered, threatened, or sensitive according to the process and criteria defined in WAC 232-12-297.
 - B. *Vulnerable Aggregations.* Vulnerable aggregations include those species or groups of animals susceptible to significant population declines, within a specific area or statewide, by virtue of their inclination to congregate.
 - C. *Species of Recreational, Commercial, and/or Tribal Importance.* Native and nonnative fish, shellfish, and wildlife species of recreational or commercial importance and recognized species used for tribal ceremonial and subsistence purposes that are vulnerable to habitat loss or degradation.
 - D. *Species listed under the federal Endangered Species Act as either proposed, threatened, or endangered.*
- “Riparian vegetation” means the terrestrial vegetation that grows beside rivers, streams, and other freshwater bodies and that depends on these water sources for soil moisture greater than would otherwise be available from local precipitation.
- “Species of local importance” are those species that are of local concern due to their population status or their sensitivity to habitat alteration or that are game species.
- “Stream” means water contained within a channel either perennial, intermittent, or ephemeral. Streams include both natural watercourses or those modified by man (example: stream flow manipulation, channelization, and relocation of the channel). They do not include irrigation ditches, wasteways, drains, outfalls, operational spillways, canals, stormwater runoff facilities, or other artificial watercourses except those that are located within existing wetland or streams.
- “Vegetative buffer” or “buffer” means an area extending landward from the ordinary high water mark of a lake or stream and/or from the edge of a wetland which is maintained or otherwise allowed to provide support for the performance of the basic functional properties of a fish and wildlife habitat conservation area and wetlands as set forth in YMC 15.27.504 and 15.27.603.
- “Wildlife habitat” means an area of climate, soils, vegetation, relationship to water, location and/or other physical properties which are identified as having a critical importance to the maintenance of wildlife species.

4.1.2 Designations

The YMC 15.27.502 includes designation of FWHCAs in accordance with WAC 365-190-130, with the exception of marine related habitats.

4.2 Federal, State, & Local

YMC 15.27.502 note designations of FWHCAs based on locations identified by federal, state, and local authorities, including but not limited to Federally endangered/threatened/sensitive species, Federal Emergency Management Agency mapped floodplains, WDFW's Priority Habitats and Species (PHS) program, Waters of the State, government or tribal stocked aquatic features, and 'Habitats of Local Importance'.

4.3 Protection

The protection of fish and wildlife habitat conservation areas are expressed in YMC 15.27.501 (Protection Approach) and designated through YMC 15.27.502 (Designation) and YMC 15.27.507 (Maps).

Recommendation: Consider specifically noting the requirement of a Critical Area Report based on listed designation listed within YMC 15.27.502.

Recommendation: Consider revising terminology used in YMC 15.27.315(A)(1) to require a Habitat Management Plan (HMP) instead of a 'habitat and native vegetation conservation strategy.'

4.3.1 Buffers & Setbacks

Yakima Municipal Code (YMC 15.27, Part Five) regulates FWHCAs by establishing fixed buffer widths measured horizontally from the ordinary high-water mark (OHWM), varying by stream type. The code (YMC 15.27.505) still references the interim water typing system (Types 1-5), which has been replaced by the permanent water system (Type S, F, Np, and Ns classifications) under WAC 222-16-030.

Recommendation: Consider updating stream typing according to WAC 222-16-030 Water Typing Systems, which applies Type S, F, Np/s, and subsequently updating references to Designated Type 2 Stream Corridors in Appendix B.

4.3.2 Riparian Management Zone

The WDFW has published multiple BAS resources and guidance related to RMZs, including but not limited to:

- **Riparian Ecosystems Vol. 1 (Quinn, 2020):** Identifies BAS regarding ecological functions of riparian areas and management measures necessary to maintain them.
 - **Riparian Ecosystems Vol. 2 (Rentz et al., 2020):** Identifies recommendations for how local governments can include BAS in protecting riparian ecosystems and associated aquatic habitats.
- **Site Potential Tree Height Guidelines (2025):** Recommends implementation of riparian management zones (RMZ) through utilizing arboreal species-specific site-potential tree heights (SPTH200) or the extent of native riparian vegetation, whichever is greater, along with a 100-foot minimum to ensure pollutant-removal functions.
- **Riparian Management Zone Checklist (2023):** Details performance measures and additional protective measures for CAO updates.

While the provisions for stream buffering/setbacks and channel migration zones provide a baseline level of protection, they do not align with WDFW's 2020 Riparian Ecosystems BAS (Quinn, 2020), the 2020 Site Potential Tree Height (SPTH) guidance (WDFW, 2025), or the 2023 RMZ Checklist.

Recent WDFW guidance on SPTH (WDFW, 2025) recommends that additional protections to designate riparian ecosystems should be considered based on associated arboreal/forested systems and WDFW RMZ recommendations (Rentz et al., 2020). Designation of riparian ecosystems/habitats as a FWHCA through the use of RMZs ensures protection of the ecological functions of aquatic habitats, further supporting both fish-bearing riparian habitats (anadromous fish habitats) and non-fish-bearing habitats. Protection of these habitats support temperature regulation, nutrient cycling, pollution prevention, bank stabilization, water quality protection, terrestrial wildlife movement corridors, and climate resilience.

The functional properties listed in YMC 15.27.504 support RMZs related to site specific circumstances where the protection of riparian function and values necessitate a larger buffer as a protective measure, such as poor soil conditions, steep slopes or stormwater runoff that can contribute to and deposit pollutants within riverine habitats.

WDFW's Riparian Ecosystems guidance, Vol. 2, Section 2.3.5 (Rentz et al., 2020) indicates that while site-potential tree height (SPTH) may apply in the limited areas of the Columbia Plateau where tall riparian trees occur, this condition is uncommon. In most dryland settings, riparian management zones are more appropriately delineated based on the extent of riparian vegetation and the pollution-removal functions they provide, with a minimum 100-foot width generally cited as necessary to achieve effective pollutant reduction.

In Yakima, FWHCAs occur in a semi-arid shrub-steppe landscapes characteristic of the Columbia Plateau. Riparian systems along the Yakima River, Naches River, and tributaries provide essential functions even in the absence of tall coniferous forests. This setting requires a regulatory framework that predominantly emphasizes pollutant removal, water quality protection, and habitat connectivity over tree-height-based metrics that are not ecologically applicable in shrub-steppe habitats due to a lack of tall forested systems.

Specifically, standard SPTH buffers at a minimum of 200-feet, with the arboreal species-specific tree heights ranging from 123 to 300-feet, may not be a suitable measure for the riparian habitats of the semi-arid shrub-steppe landscape of the Columbia Plateau. Alternatively, the absence of tall forested systems along Yakima's riparian areas could be supported by the designation of FWHCA RMZs based on WDFW recommendations (Rentz et al., 2020).

Comprehensively, these guidance documents establish that while SPTH is the preferred scientific measure, BAS supports a flexible approach where ecological conditions (e.g., shrub-steppe) make implementation of SPTH standard buffers inapplicable.

Due to the unique complexities of Yakima's regional and localized ecosystems as well as potential socioeconomic impacts within the City of Yakima, a separate technical memorandum will be drafted specifically addressing impacts resulting from the implementation of RMZs according to recent WDFW BAS as well as supporting case studies alternatives.

4.3.3 Anadromous Fisheries

The protection of anadromous fish is noted in YMC 15.27.150 with references to GMA required BAS designations and procedural criteria. Additional references to anadromous fish are only found in YMC 15.27.603 (Wetlands functions and rating.).

Recommendation: For clarity, consider adding language in YMC 15.27.502 specifically noting the ‘Sensitive Fish Species Identified in the City’s Streams and Rivers’ listed in the Natural Environment Element of the Yakima Comprehensive Plan.

Recommendation: Consider including a reference to YMC 15.27.150 regarding consultation with federal, state, and regional salmon recovery plans as recommended by WAC 365-190-130(4).

4.3.4 Shrubsteppe

Since the previous periodic review and update of Yakima’s COA, shrub-steppe habitats areas as designated by WDFW have changed geospatially as well as in classification. The Washington Shrubsteppe Restoration and Resiliency Initiative (WSRRI) issued a Long-Term Strategy for 2024-2054 (WDFW-Shrubsteppe, 2024). The extent of the Shrubsteppe habitat has varied historically and in order to defend, grow, and connect the habitat areas for the future, the WSRRI’s strategy has derived spatial priority classifications for reaching conservation targets regarding dry (xeric) and wet (mesic) habitats as well as the greater sage-grouse, a species of highest conservation concern. These spatial priority areas are mapped online for reference.

While WDFW PHS designations are available online and also designated as FWHCAs through YMC 15.27.502, it is important to note both, the changes recently made in WDFW PHS designation of shrubsteppe areas, as well as the above referenced strategy plan related to shrubsteppe habitats. Shrubsteppe habitats are no longer identified as close to city limits boundaries as they previously were, but Yakima still plays a role in habitat connectivity as an applicable function of the adjacent priority habitats. Alternatively, much of the area previously designated as shrubsteppe has changed to Urban Natural Open Space, and WSRRI’s strategic plans further identifies spatial priority areas for dry (xeric) habitat priorities partially within and surrounding the City of Yakima. WSRRI xeric habitat priority classifications nearest the City of Yakima include xeric habitat core, xeric habitat corridors, and other xeric habitats.

Recommendation: To create consistency, consider revising ‘wildlife priority habitats’ as referenced by the city’s GIS geodatabase nomenclature to more clearly be identify with WDFW PHS terminology.

Recommendation: Consider including a reference in YMC 15.27.507(B) to WDFW PHS maps and supplemental WDFW informational maps.

4.3.5 Forest Practices

While references to forest practices are included in Chapters 7.82 (Construction Stormwater Runoff) and 7.83 (Post-construction stormwater runoff), the addition and inclusion of forest practices regulations as required by RCW 76.09.240 and related to critical area functions and values should be included in the city’s CAO under Chapter 15.27. Existing references support acknowledgement of land disturbing activities including Class IV general forest practices in relation with stormwater management in the event of new development, but these chapters also express that forest practices regulated under Title 222 of the Washington Administrative Code (WAC) are exempted from applicability of the chapters.

Recommendation: Consider addressing forest practices as required under RCW 36.70A.570 and as stipulated by RCW 76.09.240, by addressing protection of public resources, appropriate approvals for conversion of forestlands, guided by planning goals in RCW 36.70A.202, and are consistent with or supplement development regulations that protect critical areas.

Additionally, due to the city recent efforts in establishing an Urban Forestry Management Plan that was “...designed to guide the City’s efforts in nurturing and expanding its green infrastructure...”, this action could be referenced as addressing protection of public resources. Provisions related to forest practices already existing within the city’s SMP regulations, similar provisions would support habitat functions and values across habitats not already covered by the SMP.

4.3.6 Hazardous Tree Removal

Hazard trees can pose public safety concerns, both for the jurisdiction in and around publicly accessible areas, and for private property owners in proximity to or at the edge of habitat buffers. Dead trees and snags also provide habitat functions for wildlife and should be preserved if not hazardous.

Chapter 8.77 (Public Tree Ordinance) of the YMC addresses public tree management as part of the city’s urban tree program. Provisions of this Chapter also cover ‘dead and diseased tree removal on private property’ and also defines ‘hazard tree’ according to tree hazard evaluation standards by the International Society of Arboriculture. This Chapter does not contain provisions for addressing hazard trees in relation to critical areas in general nor riparian habitat areas.

Recommendation: Consider addressing hazard tree removal within riparian habitats in consideration of Forest Practice Rules (WAC 222-21-010[4]) for both public and private benefits, along with provisions that prevent damage to remaining trees and vegetation within riparian habitats.

5.0 WETLANDS

Table 5. Wetland Recommendations

Code Section	Reason/Consistency	Recommendation
15.27.603 – Wetland Functions & Rating	WA Ecology, <i>Wetland Guidance for CAP Updates: Western & Eastern Washington</i> (Ecology, 2022)	Consider incorporating references to climate-mitigation and resiliency.
15.27.603 – Wetland Functions & Rating	WA Ecology, <i>Wetland Guidance for CAP Updates: Western & Eastern Washington</i> (Ecology, 2022)	Consider incorporating language regarding disconnected buffers.

5.1 Definition, & Classification

Wetlands provide water-quality improvement (nutrient, sediment, metals/toxics retention and transformation), hydrologic regulation (flood attenuation, erosion reduction, groundwater recharge), and habitat functions (for invertebrates, amphibians, fish, birds, mammals). In Yakima, wetlands occur along riverine corridors, springs/seeps, seasonal depressions, and areas influenced by shallow groundwater or irrigation return flows, and they interconnect with other critical areas (FWHCAs, frequently flooded areas).

Under the Growth Management Act and SEPA, wetland protection is grounded in federal and state definitions and Best Available Science (BAS). Ecology emphasizes that wetland loss/degradation increases flood risk, degrades water quality, and reduces ecosystem services that carry real public and private costs.

5.2 Delineation & Ratings

The YMC 15.27.600–.605 establishes purpose and intent, designation/delineation (use of the 1987 Corps Manual + Regional Supplements), functions and rating (Ecology 2014 Eastern WA rating system), buffers (category- and habitat-score-based tables with required impact minimization measures and corridor provisions), buffer averaging, and compensatory mitigation (sequencing, banks/ILF, and credit/debit option for Eastern WA). Buffers must be vegetated with native plant communities; wider if overlapping buffers applies; signs/fencing and long-term stewardship are addressed. Overall, YMC Chapter 15.27 – Part Six Wetlands, already tracks closely with Ecology’s model guidance for Eastern Washington and is substantially aligned with GMA requirements and other BAS guidance.

The 2022 Guidance for CAO Updates clarifies buffer approaches for Eastern Washington (Appendix D), updates minimization measures, and incorporates climate change considerations (e.g., carbon sequestration). The guidance emphasizes watershed-based planning and use of updated rating systems.

Recommendation: Consider incorporating climate-mitigation and resiliency (carbon Sequestration).

Recommendation: Consider incorporating language regarding disconnected buffer as recommended by Ecology’s *Wetland Guidance for CAP Updates: Western & Eastern Washington* (Ecology, 2022).

6.0 GEOLOGICALLY HAZARDOUS AREAS

Table 6. Geologically Hazardous Areas Recommendations

Code Section	Reason/Consistency	Recommendation
15.27.701 – Mapping and Designation	WAC 365-190-120(4)	Consider assessing geologically hazardous areas based on three classifications; Known/Suspect, No Known, Unknown.
15.27.701 – Mapping and Designation	WAC 365-190-120(5)	Consider including references to US Dept. of Ag. NRSC soil type classifications for identification and assessment of erosion hazard areas.
15.27.701 – Mapping and Designation	WAC 365-190-120(6) (a) through (h)	Consider referencing the combination of potential geological, topographical, and hydrologic factors for identification and assessment of landslide hazard areas.
15.27.701 – Mapping and Designation	WAC 365-190-120(7)	Consider referencing the combination of historical evidence, settlement, faulting, and liquefaction susceptibility for identification and assessment of seismic hazard areas.
15.27.701 – Mapping and Designation	Clarity	Consider updating references to city maps sources generally to allow for updates and additions.

15.27.701 –
Mapping and Designation Clarity

Consider referencing the Dept. of Natural Resource Geologic Information Portal as a source for geological, topographical, and hydrological information.

6.1 Designation & Classification

Geologically Hazardous Areas are defined and designated through YMC 15.27.701, with an added provision noting lands located outside of mapped designations are not implied without risk. Fourteen additional sub-classifications are designated through city mapping mechanisms with the exception of Volcanic hazard areas due to geologic limitations.

- Landslide Hazard Areas
 - LS3, LS2, and Low Risk
- Oversteepened Slope Hazard Area
 - OS3, OS2, and Low Risk
- Alluvial Fan/Flash Flooding hazard Areas (AF)
- Avalanche Risk Hazard Areas (AR)
- Stream Undercutting Hazard Areas
 - SU3, SU2, and SU1
- Earthquake Activity Hazard Area (EA)
- Suspect Geological Hazard Areas (SUS)
- Risk Unknown Hazard Areas (UNK)

Recommendation: Pursuant to WAC 365-190-120(4) consider assessing geologically hazardous areas based on three risk classifications; Known or suspected risk, No known risk, or Risk Unknown.

Recommendation: Pursuant to WAC 365-190-120(5), consider including references to the US Department of Agriculture Natural Resource Conservation Service (NRSC) regarding soil type classification to help administrators identify and classify potential erosion hazards areas.

Recommendation: Consider directly referencing the combination of potential geologic, topographic, and hydrologic factors as listed in WAC 365-190-120(6)(a) through (h), to be used in assessing landslide hazard areas.

Recommendation: Consider directly referencing the combination of historical earthquake damage, underlain settlement, surface faulting and soil liquefaction susceptibility factors as listed in WAC 365-190-120(7), to be used in assessing seismic hazard areas.

Importantly, in order to ensure the risk classification as previously recommended (known or suspected risk, no known risk, or risk unknown) are appropriately designated geospatially, a professionally licensed Geologist and/or Hydrogeologist should be consulted prior to designating specific areas. A licensed Geologist and/or Hydrogeologist should also be consulted on designating erosion, landslide, or seismic hazards as recommended above. The above recommendations can be sought in addition to the existing designations as geospatially identified in existing city mapping mechanisms.

6.2 Protection & Reporting

Avoiding disturbance of geologic hazards areas is the predominant protective approach, but WAC 365-190-080(4) notes that some geological hazard can be mitigated through engineering, design, modified construction and mining practices resulting in acceptable risks to health and safety. The YMC 15.27.702 supplements protective measures for erosion hazards areas through implementation of regulatory standards aligned with the best management practices (BMPs) in the Stormwater Management Manual for Eastern Washington (Ecology, No. 04-10-076). Stream Undercutting Hazard Areas are also supplemented with provisions requiring critical area review in context with flood hazards and streams. Development review procedures help to minimize risks through requiring critical area development authorizations and Geological Hazard Reports as required by the administrative official.

6.3 Mapping

While YMC 15.27.701 references the city's "Erosion Hazards Areas of the City of Yakima" and "Geologically Hazardous Areas of the City of Yakima", these maps were not found to be available online. Alternatively, the city provides an online webmap with a geological Hazards layer available for reviewing five of the fourteen mentioned geological hazard classification; Landslide Intermediate Risk (LS2), Landslide High Risk (LS3), Oversteepened Slopes Intermediate Risk (OS2), Oversteepened Slopes High Risk (OS3), and Other.

Recommendation: For clarity and to avoid referring to outdated maps, consider revising YMC 15.27.701 (Mapping and designation) to generally reference city maps as available to allow for updates and/or additions to mapped geological hazard areas.

Recommendation: Pursuant to WAC 365-190-120(6), consider referencing the Department of Natural Resource's Geologic Information Portal as a source for assessing landslide seismic hazards areas based on geological, topographic, and hydrologic factors.

7.0 CRITICAL AQUIFER RECHARGE AREAS

Table 7. CARA Recommendations

Code Section	Reason/Consistency	Recommendation
15.27.200 – Definitions generally.	WAC 365-190-030	Consider including reference to susceptibility to reduced recharge to definition.
15.27.315(E)(2) – Supplemental report requirements for specific critical areas.	RCW 36.70A.142	Consider including the siting of organic material management facilities to require Level Two Hydrological Assessment requirement.
15.27.810(C) – Guidance Documents	Clarity	Consider revising reference to include specific website addresses.

7.1 Definition, Classification, & Protection

CARAs are defined in YMC 15.27. 200 according to WAC 365-190-030 but is missing the reference to the 'susceptibility to reduced recharge'. Wellhead protection zones are appropriately classified according to the

Washington Department of Health (DOH) Wellhead Protection Program, Washington Office of Drinking Water, and Source Water Assessment Program (SWAP) Mapping Application. Specific prohibited activities are listed in YMC 15.27.820(B), and extensive performance standards are noted in YMC 15.27.820(C) including but not limited to secondary containment, vehicle fueling, stormwater infiltration, construction practices, fill materials, protection wells, and underground hydraulic systems.

Recommendation: Consider revising the definition for CARAs to include the referencing drinking water source susceptibility to reduced recharge.

7.2 Quality & Quantity

The city's Part Eight of YMC Chapter 15.27 is found to address the protective measures used for characterizing groundwater resources by identification, susceptibility, inventorying, classification, designation, contamination protection, implementation of BMPs, and management of groundwater withdrawals.

7.3 Wellhead Protection Areas

The DOH administers the wellhead protection program, with requirements applying to all Group A and Group B water systems. The city owns and operates 4 wells for the Water Resources Division treatment plant. Each wellhead protection area contains a unique analytically derived area of influence. In addition to Part Eight of YMC Chapter 15.27, the city supports protection of these critical areas with the City of Yakima 2017 Water System Plan.

7.5 Mapping & Reporting

Supplemental report requirements for CARAs are noted in YMC 15.27.315, with provisions requiring a licensed geologist, hydrogeologist, or engineer to prepare a CARA report including surface reconnaissance, safety and appropriateness of proposed activities, construction practices, monitoring, mitigation, as well as requiring coordinated assessment with other potentially associated critical areas. Two levels of hydrological assessment are noted, with each level directly related to the proposed use's level of influence and potential for impact.

Pursuant to RCW 36.70A.142, County's must regulate the siting of organic materials management facilities to ensure their establishment of organic materials management volumetric capacities. While this state requirement is applicable specifically to County's, it would benefit the City of Yakima to address the same topic as a preventative measure for minimizing incompatible uses and potential impacts to residential areas.

Recommendation: Consider including a reference to the siting of organic materials management facilities under YMC 15.27.315(E)(2) (Level Two Hydrological Assessment) as a proposed activity qualifying for additional reporting requirements.

Recommendation: Consider revising YMC 15.27.810(C) (Guidance Documents) to not include specific website addresses, instead general reference these resources so that updates or reissuance does not warrant amendments to the code section.

8.0 REFERENCES

8.1 Critical Areas – Overall Requirements

City of Yakima, WA. Yakima Municipal Code, Chapter 15.27 – Critical Areas Ordinance. First accessed February 2025 at : <https://www.codepublishing.com/WA/Yakima/#!/YakimaNT.html> (Yakima Municipal Code).

Department of Commerce. 2018. *Summary of Critical Areas WAC Amendments*. December 2018. Washington Department of Commerce. Olympia, WA.

Department of Commerce. 2023. *Critical Areas Handbook, A Handbook for Reviewing Critical Areas Regulations, Version 3*. Washington Department of Commerce. Olympia, WA.

Department of Commerce. 2024. *Critical Area Checklist, A Technical Assistance Tool from Growth Management Services*. Updated May 2024. Washington Department of Commerce. Olympia, WA.

Department of Fish and Wildlife. 2023. *Riparian Management Zone Checklist for Critical Areas Ordinances*. Olympia, WA.

8.2 Frequently Flooded Areas

Ecology. 2021. (Ecology, 2021) *WA State Model Ordinance, Version 2/24/2021, Evaluation Sheet*. Washington State Department of Ecology. Olympia, WA

Ecology. 2021. (Ecology, 2021-B) *Comprehensive Planning for Flood Hazard management: A Guidebook*. Washington State Department of Ecology. Publication #21-06-019. Olympia, WA

8.3 Fish & Wildlife Habitat Conservation Areas

WDFW. 2025. (WDFW, 2025) *Guidelines for Determining Site Potential Tree Height from Field Measurements*. Olympia, WA.

WDFW. 2025. *PHS on the Web, Online webmap*. Olympia, WA. First accessed August 2025 at: <https://geodataservices.wdfw.wa.gov/hp/phs/> (PHS on the Web).

WDFW. 2008. *Priority Habitat and Species List, Updated June 2023*. Olympia, WA. 291pp.

WDFW. 2020. (Quinn, 2020) *Riparian Ecosystems, Volume 1: Science synthesis and management implications*. Timothy Quinn, George Wilhere and Kirk Krueger, (Managing Editors). A Priority Habitat and Species Document of the Washington Department of Fish and Wildlife, Olympia, Washington.

WDFW. 2020. (Rentz et al., 2020) *Riparian Ecosystems, Volume 2: Management Recommendations*. Amy Windrope, Timothy Quinn, Keith Folkerts, and Terra Rentz. A Priority Habitat and Species Document of the Washington Department of Fish and Wildlife, Olympia, Washington.

WDFW (Washington Department of Fish and Wildlife, Washington State Department of Natural Resources, Washington State Conservation Commission). (WDFW-Shrubsteppe, 2024). March 2024. Washington Shrubsteppe Restoration and Resiliency Initiative: Long-Term Strategy 2024-2054. Olympia, Washington.

8.4 Wetlands

Environmental Laboratory. 1987. *Corps of Engineers Wetland Delineation Manual*. Technical Report Y-87-1. Environmental Laboratory, Department of the Army, Corps Waterways Experiment Station, Vicksburg, MS.

Granger, Terri, Thomas Hruby, Andy McMillan, D. Peters, J. Rubey, Dianne Sheldon, S. Stanley, E. Stockdale. April 2005. *Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands*. Washington State Department of Ecology. Publication #05-06-008. Olympia, WA.

Hruby, T. 2012. *Calculating Credits and Debits for Compensatory Mitigation in Western Washington – Final Report*. Washington Department of Ecology. Publication #10-06-011. Olympia, WA. 110 pp + App.

Hruby, Thomas, Donna Bunten, Amy Yahnke and Jerry Franklin. 2017. *Characterizing Wetland Buffer in Washington State*. Washington Department of Ecology. Publication #17-06-008. Olympia, WA. 118 pp + App.

Hruby, T., K. Harper, and S. Stanley. 2017. *Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington)*. Washington Department of Ecology. Publication #09-06-032. Olympia, WA. 34 pp + App.

Hruby, Thomas. 2014. *Washington State Wetland Rating System for Western Washington: 2014 Update*. Washington Department of Ecology. Publication #14-06-029. Olympia, WA. 118 pp + App.

Hruby, Thomas. 2014. *Washington State Wetland Rating System for Western Washington: 2023 Update*. Washington Department of Ecology. Publication #23-06-009. Olympia, WA. 147 pp + App.

Hruby, Thomas. 2013. *Update on Wetland Buffers: The State of the Science, Final Report*. Washington Department of Ecology. Publication #13-06-011. Olympia, WA. 33 pp.

Johnson, Patricia, Dana L. Mock, Andy McMillan, Lauren Driscoll, Tom Hruby. February 2002. *Washington State Wetland Mitigation Evaluation Study – Phase 2: Evaluating Success*. Washington State Department of Ecology. Publication #02-06-009. Olympia, WA.

Sheldon, Dyanne, Tom Hruby, Patricia Johnson, Kim harper, Andy McMillam, Teri Granger, Stephen Stanley, Erik Stockdale. March 2005. *Wetlands in Washington State - Volume I. A Synthesis of the Science*. Washington State Department of Ecology. Publication #05-06-006. Olympia, WA.

US Army Corps of Engineers (Army Corps 2010). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Version 2.0). US Army Engineer Research and Development Center Environmental Laboratory. Vicksburg, MS. Publication # ERDC/EL TR-10-3 [May 2010].

Washington State Department of Ecology. 2022. *Wetland Guidance for Critical Area Ordinance (COA) Updates: Western and Eastern Washington*, Publication No. 22-06-014. October 2022. Shorelands and Environmental Assistance Program, Olympia, WA. 36 pp + App.

Washington State Department of Ecology, US Army Corps of Engineers Seattle District, and US Environmental Protection Agency Region 10. 2021. *Wetland Mitigation in Washington State – Part I: Agency Policies and*

Guidance (Version 2). April 2021. Washington State Department of Ecology Publication #21-06-003. Olympia, WA.

Washington State Department of Ecology, US Army Corps of Engineers Seattle District, and US Environmental Protection Agency Region 10. March 2006. *Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1)*. Washington State Department of Ecology Publication #06-06-011b. Olympia, WA.

8.5 Geologically Hazardous Areas

WADNR, Washington Geologic Survey. Washington Geologic Information Portal, online webmap. First accessed February 2025 at: https://geologyportal.dnr.wa.gov/2d-view#wigm?-14404025,-12535292,5509193,6538952?Surface_Geology,500k_Surface_Geology,Map_Units, ([Washington Geologic Information Portal](#)).

8.6 Critical Aquifer Recharge Areas (CARA)

City of Yakima, WA. 2017. *City of Yakima 2017 Water System Plan, System Number 991509*. Yakima County, Washington.

Washington State Department of Ecology. 2021. *Critical Aquifer Recharge Area Guidance*. Revised March 2021. Washington State Department of Ecology Publication #05-10-028. Olympia, WA.

Washington State Department of Ecology. 2005. *Implementation Guidance for Ground Water Quality Standards*. October 2005. Washington State Department of Ecology Publication #96-02. Olympia, WA.

Washington State Department of Health, Office of Drinking Water. 2017. *Wellhead Protection Program Guidance Document*. January 2017. Washington State Department of Health Publication #DOH 331-018. Olympia, WA.

APPENDIX A

WA Dept. of Commerce Critical Areas Checklist

Critical Areas Checklist

A Technical Assistance Tool from Growth Management Services – updated May 2024

Name of city or county: City of Yakima, WA	
Staff contact, phone, and e-mail address: Trevor Martin, 509-575-6183, Ask.Planning@YakimaWA.gov	
INSTRUCTIONS This checklist is intended to help local governments update their development regulations, pursuant to the schedule in RCW 36.70A.130(5). We strongly encourage but do not require jurisdictions to complete the checklist and return it to Growth Management Services (GMS), along with their updates. However, If the jurisdiction is using a portion of their Periodic Update Grant (PUG) to update the Critical Areas Ordinance, this checklist is required. This checklist may be used by all jurisdictions, including those local governments planning for resource lands and critical areas only. For general information on update requirements, refer to A Guide to the Periodic Update Process Under the Growth Management Act – Fully Planning Counties & Cities, 2022 and WAC 365-196-610. For additional information, resources, and general checklists pertaining to comprehensive plan and development regulation periodic updates please visit Commerce’s Growth Management Act Periodic Update webpage. Bold items are a GMA requirement or may be related requirements of other state or federal laws. <u>Underlined</u> items are links to Internet sites and may include best practices or other ideas to consider. Commerce WAC provisions are advisory under Commerce’s statutory mandate to provide technical assistance, RCW 43.330.120 which states that the Department of Commerce “...<i>shall help local officials interpret and implement the different requirements of the act through workshops, model ordinances, and information materials.</i>” If you have questions, call GMS at (360) 725-3066. How to fill out the checklist Using the current version of your critical areas regulations, fill out each item in the checklist. Select the check box or type in text fields, answering the following question: Is this item addressed in your current Critical Areas Ordinance (CAO)? If YES, fill in the form with citation(s) to where in the plan or code the item is addressed. We recommend using citations rather than page numbers because they stay the same regardless of how the document is printed. If you have questions about the requirement, follow the hyperlinks to the relevant statutory provision or rules. If you still have questions, visit the Commerce Growth Management Services Web page or contact one of the Commerce planners assigned to your region.	CONTENTS Instructions..... 1 Overall Requirements.....2 Wetlands.....3 Critical Aquifer Recharge Areas.....5 Frequently Flooded Areas....6 Geologically Hazardous Areas..... 7 Fish and Wildlife Habitat Conservation Areas.....8 Designating and Protecting Waters of the State.....9 Anadromous Fisheries.....10 Reasonable Use Exceptions..... 10 Agricultural Activities.....11 Forest Practices Regulations.....11 Good Ideas.....12

CRITICAL AREAS

Regulations protecting critical areas are required by **RCW 36.70A.060(2)** and **RCW 36.70A.172(1)**. [WAC 365-195-900 through 925](#) provide guidelines. Guidance can also be found in [Commerce's Critical Areas Handbook](#) (2022); the Minimum Guidelines [WAC 365-190-080 through 130](#); Best Available Science [WAC 365-195](#); and Procedural Criteria, [WAC 365-196-485](#) and [WAC 365-196-830](#), and on Growth Management's [Critical Areas](#) webpage.

Regulations required to protect critical areas	Addressed in current plan or regulations? If yes, note where
OVERALL REQUIREMENTS The CAO includes best available science to clearly designate and protect all critical areas that might be found within the jurisdiction. 1. Designation of Critical Areas RCW 36.70A.170(1)(d) requires all counties and cities to designate critical areas. RCW 36.70A.170(2) requires that counties and cities consider the Commerce Minimum Guidelines pursuant to RCW 36.70A.050. RCW 36.70A.050 directs Commerce to adopt the Minimum Guidelines to classify critical areas. WAC 365-190-080 through 130 provide guidance on defining or "designating" each of the five critical areas. WAC 365-190-040 outlines the process to classify and designate natural resource lands and critical areas. 2. Definition of Critical Areas RCW 36.70A.030(11) provides definitions for critical areas. Sections (20) regarding geologically hazardous areas; and (48) regarding wetlands were updated in 2010. WAC 365-190-030 provides definitions in the Minimum Guidelines. 3. Protection of Critical Areas RCW 36.70A.060(2) requires counties and cities to adopt development regulations that protect the critical areas required to be designated under RCW 36.70A.170. RCW 36.70A.172(1) requires the inclusion of best available science in developing policies and development regulations to protect the functions and values of critical areas. In addition, counties and cities must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries. WAC 365-196-830 provides guidance on protection of critical areas.	Was BAS documented in the record for the review and updates to the critical areas regulations? ☒ Yes ☐ No Location in Text: 1. Designation YMC Chapter 15.27 Part One & YMC Chapter 17.09 (SMP) 2. Definitions YMC 15.27.200, YMC 15.27.700, & YMC 17.01.090 (SMP) 3. Protection YMC Chapter 15.27 Article IV-Permit Review Criteria, YMC 15.27.321, YMC 15.27.407-15.27.408, YMC 15.27.501, YMC 15.27.602, YMC 15.27.702, YMC 15.27.820, & YMC Chapter 17.09 4. Best Available Science YMC 15.27.150, YMC 15.27.314(B), YMC 15.27.500(A), YMC 15.27.501(2), YMC 15.27.604(A), YMC 15.27.605(I)(7), YMC 17.01.090 (SMP),

4. Inclusion of Best Available Science RCW 36.70A.172(1) requires inclusion of the best available science (BAS). WAC 365-195-900 through 925 outlines recommended criteria for determining which information is the BAS, for obtaining the BAS, for including BAS in policies and regulations, for addressing inadequate scientific information, and for demonstrating “special consideration” to conservation or protection measures necessary to preserve or enhance anadromous fisheries. WAC 365-195-915 provides criteria for including BAS in the record. 5. No net loss of critical area functions and values is a requirement for development regulations in WAC 365-196-830(4). If development regulations allow harm to critical areas, they must require compensatory mitigation of the harm.	YMC 17.03.090 (SMP), YMC 17.05.020 (SMP), YMC 17.07.120 (SMP), YMC 17.09.010(P), (I)(4) (SMP), & YMC 17.09.030-17.09.040 Note: The code sections of the SMP (Title 17) referenced above utilized the terms “scientific evidence” or “scientific and technical information” instead of “best available science”. Do your regulations address no net loss and require compensatory mitigation? ☒ Yes ☐ No Location in Text: YMC 15.27.130, YMC 15.27.314-15.27.321, YMC 15.27.605, YMC 17.01.030(H) (SMP), YMC 17.01.040(K) (SMP), YMC 17.03.030-17.03.060 (SMP), YMC 17.05.020-17.05.060 (SMP), YMC 17.07.050 (SMP), YMC 17.07.070 (SMP), YMC 17.07.090 (SMP), YMC 17.07.130 (SMP), YMC 17.07.160-17.07.170 (SMP), YMC
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	17.09.010(B)(1) and (Q) (SMP), YMC 17.09.050(C) (SMP), YMC 17.13.160 (SMP)
WETLANDS DEFINITION The definition of wetlands is consistent with <u>RCW 36.70A.030(48)</u> .	Is the wetland definition consistent with RCW 36.70A.030(48)? ☒ Yes ☐ No ☐ N/A Location in Text: YMC 15.27.200 Definitions, & YMC 17.01.090 Definitions (SMP)
WETLANDS DELINEATION Wetlands are delineated using the approved federal wetland delineation manual and applicable regional supplements in accordance with WAC 173-22-035 . See Ecology's Wetland Delineation page and WAC 365-190-090 for additional assistance.	Are wetlands delineated using the approved Federal Wetland Delineation Manual and Regional Supplements? ☒ Yes ☐ No ☐ N/A Location in Text: YMC 15.27.601, & YMC 17.09.040(B)(1) (SMP)

WETLANDS PROTECTION Policies and regulations protect the functions and values of wetlands. <u>RCW 36.70A.172(1)</u>. Counties and cities are encouraged to make their actions consistent with the intent and goals of “protection of wetlands”, Executive Order 89-10 as it existed on September 1, 1990. WAC 365-190-090(3) recommends using a wetlands rating system that evaluates the existing wetland functions and values to determine what functions must be protected. Ecology updated its recommended wetlands rating systems effective January 2015. For information on the rating system, including the July 2018 adjustments to ranges for habitat scores, see: • 2014 Updates to the Washington State Wetland Rating Systems • Washington State Wetland Rating System for Western Washington • Washington State Wetland Rating System for Eastern Washington For other resources and guidance on protecting wetlands, go to Ecology’s Local Wetland Regulations: Growth Management Act technical assistance and see: • Wetland Guidance for Critical Areas Ordinance (CAO) Updates: Western and Eastern Washington (2022)	Do the regulations use a rating system to determine wetlands protection? ☒ Yes ☐ No ☐ N/A Location in Text: YMC 15.27.603, & YMC 17.09.040(D)(2) (SMP)
CRITICAL AQUIFER RECHARGE AREAS Policies and regulations protect the functions and values of critical aquifer recharge areas. <u>RCW 36.70A.172(1)</u>. Policies and regulations protect the quality and quantity of groundwater used for public water supplies. <u>RCW 36.70A.070(1)</u> and <u>WAC 365-196-485(1)(d)</u>. The following references also relate to protection of groundwater resources: • <u>RCW 90.44</u> – Regulation of Public Groundwaters • <u>RCW 90.48</u> – Water Pollution Control • <u>RCW 90.54</u> – Water Resources Act of 1971 • <u>RCW 36.36.020</u> - Creation of aquifer protection area (1985) • WAC 365-190-100 Critical Aquifer Recharge Areas 2023 • WAC 173-100 Groundwater Management Areas and Programs (1988) • WAC 173-200 Water Quality Standards for Groundwaters of the State of Washington (1990) • WAC 365-196-735 Consideration of state and regional planning provisions (list) (2010) The Critical Aquifer Recharge Areas Guidance Document (2021) provides information on protecting functions and values of critical aquifer recharge areas, best available science, how to work with state and local regulations and adaptive management. Also, consider the following:	If groundwater is used for potable water, do regulations protect the quality and quantity of ground water? ☒ Yes ☐ No ☐ N/A Location in text: YMC 15.27.800 & YMC 17.09.060 (SMP)

CRITICAL AQUIFER RECHARGE AREAS - Prohibiting or strictly regulating hazardous uses in critical aquifer recharge areas (CARAs) and designating and protecting wellhead areas. See Ecology's guidance on Critical Aquifer Recharge Areas. - Limiting impervious surfaces to reduce stormwater runoff, as required under Phase I and II municipal stormwater permits. Ecology's Stormwater Manual for Western Washington (2012) includes low impact development (LID) related definitions, requirements, and an LID performance standard. See Stormwater Management and Design Manuals on Ecology's web page. - For additional guidance on LID resources, see Commerce's Incentivizing low-impact development guidebook.	Are the critical aquifer recharge regulations consistent with current mapping of these critical areas? ☒ Yes ☐ No ☐ N/A Location in text: YMC 15.27.800-15.27.820 & YMC 17.09.060(B) (SMP)
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FREQUENTLY FLOODED AREAS Regulations protect the functions and values of frequently flooded areas and safeguard the public from hazards to health and safety. RCW 36.70A.172(1). WAC 365-196-830 provides: "'Protection' in this context means preservation of the functions and values of the natural environment, or to safeguard the public from hazards to health and safety." WAC 365-190-110 directs counties and cities to consider the following when designating and classifying frequently flooded areas: - Effects of flooding on human health and safety, and to public facilities and services; - Available documentation including federal, state, and local laws, regulations, and programs, local studies and maps, and federal flood insurance programs, including the provisions for urban growth areas in RCW 36.70A.110; - The future flow flood plain, defined as the channel of the stream and that portion of the adjoining flood plain that is necessary to contain and discharge the base flood flow at build out; - The potential effects of tsunamis, high tides with strong winds, sea level rise, and extreme weather events, including those potentially resulting from global climate change; - Greater surface runoff caused by increasing impervious surfaces. Classification of and regulations for frequently flooded areas should not conflict with the FEMA requirements for the National Flood Insurance Program (NFIP). See Ecology's Frequently Flooded areas: Critical Areas Ordinance webpage and 44 CFR 60. Communities that are located on Puget Sound or the Strait of Juan de Fuca, or have lakes, rivers or streams that directly or indirectly drain to those water bodies, are subject to the NFIP Biological Opinion (BiOp) for Puget Sound. The biological opinion required changes to the implementation of the NFIP in order to meet the	Are frequently flooded areas designated and regulated using FEMA and Ecology guidance? ☒ Yes ☐ No ☐ N/A Location in Text: YMC 15.27 Part Four – Flood Hazard Areas; The City updated YMC 15.27 Part Four in 2021 (Ord. 2021-021), amending and adding sections related to the identification and establishment of flood hazard areas (YMC 15.27.400), Methods of Reducing Flood Losses (YMC 15.27.403), and amending sections related to Penalties, Liabilities, Variances, New Construction, General Standards for Construction
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FREQUENTLY FLOODED AREAS

requirements of the Endangered Species Act (ESA) in the Puget Sound watershed. FEMA Region X has developed an implementation plan that allows communities to apply the performance standards contained in the Biological Opinion by implementing:

- 1) [a model ordinance](#);
- 2) [a programmatic Checklist](#); or
- 3) on a permit by permit basis as long as it can be demonstrated that there is no adverse effect to listed species. Communities have the option of utilizing their CAOs as part of a programmatic response to address the requirements of the biological opinion. FEMA must approve a community's biological opinion compliance strategy.

Additional resources:

RCW 86.12 Flood Control by Counties

RCW 86.16 Floodplain Management

RCW 86.26 State Participation in Flood Control Maintenance

RCW 86.16.041 Floodplain Management Ordinance and Amendments

[WAC 173-158-070](#) Requirements for construction in Special Flood Hazard Areas

Techniques, Floodproofing Certificates, Storage of Materials, Critical Facilities, Livestock Sanctuary Areas, and Specific Standards for Residential and Nonresidential Construction, Manufactured Homes, Enclosed Areas, areas with or without established base flood elevations / floodways, Shallow Flooding Areas, Structure Drainage, Recreational Vehicles, and Permit Application / Review Process.

YMC 17.03.010 & 17.05.060 through the establishment of the Floodway/Channel Migration Zone (CMZ) within shoreline environmentally designated areas, also supports the protection of overflow channels and preservation of natural hydraulic, geologic, and biological functions.

FREQUENTLY FLOODED AREAS	Are you utilizing your CAO as part of a programmatic response to the BiOp? ☐ Yes ☐ No ☒ N/A Location in Text: Not Applicable; Only applies to communities with watersheds directly or indirectly draining into the Puget Sound or the Strait of Juann Fuca.
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DEFINITION OF GEOLOGICALLY HAZARDOUS AREAS The definition of geologically hazardous areas is consistent with <u>RCW 36.70A.030(20)</u> and WAC 365-190-120(1). “Geologically hazardous areas” means areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns.	Is the geologically hazardous areas definition consistent with RCW 36.70A.030(20)? ☒ Yes ☐ No ☐ N/A Location in Text: YMC 15.27.700(A); The definition is uniquely listed within YMC 15.27 Part Seven and not within the preliminary Definitions section (YMC 15.27.200). The critical area is also defined in YMC 17.09.050(A)(1) (SMP).
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PROTECTION OF GEOLOGICALLY HAZARDOUS AREAS Regulations protect the functions and values of geologically hazardous areas and safeguard the public from hazards to health and safety. RCW 36.70A.172(1). WAC 365-196-830 provides: "Protection" in this context means preservation of the functions and values of the natural environment, or to safeguard the public from hazards to health and safety." Geologically hazardous areas are designated, and their use is regulated or limited consistent with public health and safety concerns. RCW 36.70A.030(20) WAC 365-190-120 describes the different types of hazardous areas: • Geologically hazardous areas include: • Erosion hazards • Landslide hazards • seismic hazards • tsunami hazards • volcanic hazards • channel migration zones • areas subject to other geological events such as coal mine hazards including: mass wasting, debris flows, rock falls, and differential settlement. The Department of Natural Resource's Washington Geological Survey Geologic Hazards and the Environment website includes information on earthquakes and faults, landslides, volcanoes and lahars, tsunamis, hazardous minerals, emergency preparedness, historic mines and includes geologic hazard maps that can be accessed from the Geologic Information Portal.	Are uses in geologically hazardous areas designated and regulated or limited consistent with public health and safety? ☒ Yes ☐ No ☐ N/A Location in Text: YMC 15.27 Part Seven & YMC 17.09.050 (SMP)
DEFINITION OF FISH AND WILDLIFE HABITAT AND CONSERVATION AREAS The definition of fish and wildlife habitat conservation areas is consistent with WAC 365-190-030(6). The definition of fish and wildlife habitat conservation areas was amended to state that they do not include: <i>"such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company"</i>.	Is the FWHCA definition consistent with WAC 365-190-030(6)? ☒ Yes ☐ No ☐ N/A Location in Text: YMC 15.27.200 & YMC 17.01.090 (SMP)

PROTECTION OF FISH AND WILDLIFE HABITAT AND CONSERVATION AREAS

Policies and regulations protect the functions and values of fish and wildlife habitat conservation areas. **RCW 36.70A.172(1)** and [WAC 365-190-030\(6\)](#).

[WAC 365-190-130\(4\)](#) says local jurisdictions must consult current information on priority habitats and species identified by [WDFW](#). Additional information that must be consulted is available from DNR's [natural heritage program](#) and [aquatic resources program](#). BAS regarding biodiversity areas and corridors has advanced significantly. Recent updates and resources include:

- [Aquatic Habitat Guidelines](#)
- [Priority Habitat and Species maps](#)
- [Priority Habitats and Species List](#) (updated June 2023)
- [Priority Habitats and Species: Management recommendations:](#)
 - [Landscape Planning for Washington's Wildlife](#) (2009)
 - [Land Use Planning for Salmon, Steelhead and Trout](#) (2009)
 - [Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications](#) (2020)
 - [Riparian Ecosystems, Volume 2: Management Recommendations](#) (2020)
 - [Riparian Management Zone Checklist for CAOs](#) (2023)
 - [Shrub-Steppe Management Recommendations](#) (2020)
 - [Oregon White Oak Woodlands Ecosystems Management Recommendations](#) (1998)
 - [Management recommendations for Washington's Priority Species](#) (by taxa)
- [Puget Sound Kelp Conservation and Recovery Plan](#) (2020)
- [Stream Habitat Restoration Guidelines](#) (2012)
- [Water Crossing Design Guidelines](#) (2013)

"Areas where endangered, threatened, and sensitive species have a primary association" must be considered per [WAC 365-190-130\(2\)\(a\)](#). Consult WDFW's [Threatened and Endangered Species list](#) and U.S. Fish and Wildlife Service's [Information for Planning and Consultation](#) resources for up to date information on all state and federal listed species.

Also see the [Puget Sound Partnership's Salmon Recovery website](#) for Water Resource Inventory Area (WRIA) Plans in Puget Sound.

Have you reviewed your regulations regarding any applicable changes in management recommendations for priority habitats and species?

- ☒ Yes
☐ No
☐ N/A

Location in Text

[YMC 15.27 Part Five, YMC 17.09.010\(D\)\(3\) and \(Q\) \(SMP\);](#)

Have you reviewed your regulations regarding any changes in species listings?

- ☒ Yes
☐ No
☐ N/A

Location in Text

[YMC 15.27.502-507 & YMC 17.09.030\(C\) and \(D\) \(SMP\)](#)

DESIGNATING AND PROTECTING WATERS OF THE STATE

RCW 90.48.020 defines waters of the state, which include all surface waters, salt waters, groundwater and all other water courses in Washington. [WAC 365-190-130\(2\)\(f\)](#) recommends designating all waters of the state as fish and wildlife habitat conservation areas (FWHCAs).

Stream types are classified in [WAC 222-16-030](#) with field verification, or an alternate system that considers factors listed in [WAC 365-190-130\(4\)\(f\)\(iii\)](#). See <http://www.dnr.wa.gov/forest-practices-water-typing> to use Washington State Department of Natural Resources (DNR)'s stream typing system.

Establish riparian management zones to maintain no net loss of riparian ecosystem functions and values.

Designate areas that risk contaminating or harming shoreline resources including tidelands and bedland suitable for shellfish harvest, kelp and eelgrass beds and forage fish spawning areas.

Do you designate waters of the state as FWHCAs?

☒ Yes

☐ No

☐ N/A

Location in Text:

[YMC 15.27.502\(A\)\(4\) & YMC 17.09.030\(C\)\(4\) \(SMP\)](#)

Do your regulations protect waters of the state?

☒ Yes

☐ No

☐ N/A

Location in Text:

[YMC 15.27 Part Five & YMC 17.09.030\(H\) through \(P\)](#)

ANADROMOUS FISHERIES

Policies and regulations for protecting critical areas give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries. **RCW 36.70A.172(1)** is the requirement and [WAC 365-195-925](#) lists criteria involved. This requirement applies to all five types of critical areas.

[WAC 365-190-130\(4\)\(i\)](#) recommends sources and methods for protecting fish and wildlife habitat conservation areas, including salmonid habitat. Counties and cities may use information prepared by the United States Department of the Interior Fish and Wildlife Service, National Marine Fisheries Service, the Washington State Department of Fish and Wildlife, the State Recreation and Conservation Office, and the Puget Sound Partnership to designate, protect and restore salmonid habitat. Counties and cities should consider recommendations found in the regional and watershed specific salmon recovery plans (see the [Governor's Salmon Recovery Office webpage](#) and the Puget Sound Partnership's [Salmon Recovery webpage](#)).

[Land Use Planning for Salmon, Steelhead and Trout](#): A land use planner's guide to salmonid habitat protection and recovery (October 2009) is an excellent resource.

Do your regulations give special consideration to anadromous fisheries?

☒ Yes

☐ No

☐ N/A

Location in Text:

[YMC 15.27.150 & YMC 17.09.030](#)

REASONABLE USE EXCEPTIONS

The Critical Areas Ordinance (CAO) allows for "reasonable use" if the CAO would otherwise deny all reasonable use of property. Reasonable use provisions should limit intrusions into critical areas to the greatest extent possible and apply the mitigation sequence as needed for no net loss of ecosystem functions and values **RCW 36.70A.370**. Common exemptions include emergencies, remodels that do not further extend into critical areas, surveying, walking, and development that has already been completed with critical areas review under a previous permit. See [Critical Areas Handbook, Chapter 3: Structuring Critical Areas Regulations, p.10 \(Updated 2022\)](#).

Do you have reasonable use provisions?

☒ Yes

☐ No

Location in Text:

[YMC 15.27.318](#); SMP "Variance Provisions" are provided in [YMC 17.13.080](#)

AGRICULTURAL ACTIVITIES (COUNTIES ONLY) Non-VSP Counties Critical areas regulations as they specifically apply to agricultural activities in counties or watersheds not participating in the Voluntary Stewardship Program (VSP) have been reviewed, and if needed, revised pursuant to RCW 36.70A.130. RCW 36.70A.710(6) "Agricultural activities" means all agricultural uses and practices as defined in RCW 90.58.065. VSP Counties After watershed work plan approval, VSP counties are encouraged to reference and describe their participation in the program within their critical areas development regulations (WAC 365-196-832). See Critical Areas Handbook, Chapter 5: Protecting Critical Areas in Natural Resource Lands (2022).	Did you review your regulations as they apply to agricultural activities? ☐ Yes ☐ No ☒ N/A Location in Text: Not Applicable to the City of Yakima (Counties Only)
FOREST PRACTICES APPLICATION REGULATIONS <i>If applicable, regulations for forest practices have been adopted: <u>RCW 36.70A.570</u>.</i> <u>RCW 76.09.240</u>, requires many counties over 100,000 in population, and the cities and towns within those counties to adopt regulations for forest practices. These are often included in clearing and grading ordinances.	Have you adopted forest practices regulations? ☐ Yes ☒ No ☐ N/A Location in Text: Related provisions related to Forest Practices are included in: YMC 7.82.010 Definitions. (Stormwater) – New Development, YMC 7.82.090.4 Exemptions. (Construction Stormwater Runoff), YMC 7.83.020 Definitions. (Stormwater) – New Development, YMC 7.83.040.1.a Exemptions. (Post-Construction Stormwater Runoff), YMC

	17.01.090 Definitions. (SMP) – Forest land, & YMC 17.01.090 Definitions. (SMP) – Forest practices
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GOOD IDEAS Non-regulatory measures to protect or enhance functions and values of critical areas may be used to complement regulatory methods. These may include: • public education • stewardship programs • pursuing grant opportunities • water conservation • joint planning with other jurisdictions and non-profit organizations • stream and wetland restoration activities • transfer of development rights Monitoring and adaptive management is encouraged in WAC 365-195-905(6) to improve implementation of your regulations. See Commerce’s Monitoring and Adaptive Management chapter in the Critical Areas Handbook, Chapter 7: Monitoring and Adaptive Management of Critical Areas (2022).	Are you using non-regulatory measures to protect critical areas? ☒ Yes ☐ No Location in Text: Joint Planning with Yakima County, WA Dept. of Ecology, WA Dept. of Fish & Wildlife, & Yakama Nation. Do you have a monitoring and adaptive management program for your CAO? ☐ Yes ☒ No Location in Text: Monitoring provisions are located throughout YMC 15.27, but adaptive management mechanism is not present.
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APPENDIX B

WA Dept. of Fish & Wildlife Riparian Management Zone Checklist

Riparian Management Zone Checklist for Critical Areas Ordinances

A Technical Assistance Tool – April 2023



Purpose

The Washington Department of Fish and Wildlife (WDFW) has developed guidance to support local jurisdictions as they designate and protect riparian ecosystems as critical areas (i.e., Fish and Wildlife Habitat Conservation Areas, FWHCAs¹) consistent with the goals of the Growth Management Act and Shoreline Management Act. *Volume 1: Science Synthesis and Management Implications* ([Quinn et al. 2020](#)) is a source of Best Available Science (BAS) that describes how riparian areas and surrounding watersheds affect ecological functions and aquatic habitats. Volume 1 is intended to inform policies related to management of riparian areas. *Volume 2: Management Recommendations* ([Rentz et al. 2020](#)) provides guidance to assist cities and counties with the protection and restoration of healthy, intact, and fully functioning riparian ecosystems, which are fundamental for clean water, healthy salmon populations, and climate-resilient watersheds. This guidance supports compliance with state statute², which calls for BAS to be included in developing policies and development regulations to protect the functions and values of critical areas.

This checklist is designed to help local planners translate BAS-based recommendations into Critical Areas Ordinance (CAO) amendments (reference [Addendum](#) for examples). If you need help updating your CAO and/or completing this checklist, use WDFW's appropriate [Land Use Planning Contact Email](#) for technical assistance.

Instructions

This checklist is a voluntary tool that supplements [Commerce's Critical Areas Checklist](#), specifically the section on *Protection of Fish and Wildlife Habitat and Conservation Areas*.

1. Column 1 provides a list of WDFW's key Riparian Management Recommendations (RMR) in the form of CAO-related questions.
2. Column 2 indicates the location in Volume 2 where further detail about each RMR can be found. Definitions of terms can be found in the glossary of Volume 2.
3. In column 3, check the appropriate box and where appropriate, cite the section in your CAO where the RMR is addressed. Your response to this question may change as your CAO is amended.
4. In column 4, describe how your CAO addresses or does not address the RMR or why the RMR may not apply ("N/A").
5. If sections of your CAO do not yet address the RMR, please refer to the location cited in Volume 2 and any additional BAS-based guidance to update your CAO language (and revise columns 3 and 4 accordingly). This is meant to be an iterative process through which your CAO can better designate and protect riparian areas the more boxes are checked "Y." Rows that remain checked "N" after all CAO amendments have been proposed may represent departures from BAS that must be documented and explained³.

PREPARED FOR (Jurisdiction Name):	City of Yakima, WA
PREPARED BY (Name, Title, email):	Andrea Bachman, Environmental Scientist, andrea.bachman@perteet.com
	DATE: October 2025

¹ [WAC 365-190-130](#)

² [RCW 36.70A.172\(1\)](#)

³ [WAC 365-195-915](#)

Riparian Management Recommendation (RMR)	Location in RMR Vol. 2	Citation in CAO (✓)	How Addressed in CAO (or why not addressed in CAO)
A. Does your CAO intend to protect all key riparian ecosystem functions (i.e., shade, root strength, nutrient input, wood input, and pollution control)?	Section 2.2.2	☒ Yes ☐ No ☐ N/A Citation:	Purpose to conserve/protect + use BAS (15.27.500, 15.27.501). Functional properties explicitly include shade, filtering/pollution control, erosion prevention, woody debris, habitat/connectivity (15.27.504). General standards limit disturbance and degradation (15.27.509). Buffers required (15.27.510).
B. Depending on your ecoregion(s), do your FWHCAs utilize the appropriate methodology (<i>whichever width is greater</i>) for delineating riparian management zones (RMZs) for all stream types? - the Site-Potential Tree Height (at age 200 years, SPTH₂₀₀), - the extent of native riparian vegetation, or - the minimum pollution removal distance of 100 feet	Section 2.3 and Fig. 2.4	☐ Yes ☒ No ☐ N/A Citation:	Buffers are fixed by Interim Water Typing System (Type 2=100', Type 3=50', Type 4=25') measured from OHWM; no SPTH200, no minimum pollution removal distance, no extend of native riparian vegetation, or "whichever is greater" framework (15.27.510 & Table 27.5-1). Native plant species are referenced in context with restoration, replacement or enhancement of vegetation within FWHCAs. (YMC 15.27.317-Adjustments & YMC 15.27.517-Restoration)
C. If your jurisdiction does <u>not</u> delineate RMZs consistent with the methodologies listed in question B, do your FWHCAs meet the intent of the RMR in Vol. 2 (or are they otherwise consistent with the BAS in Vol. 1) with regards to riparian functions? If protection varies by stream type, please address how and why protections vary by each type in your response.	Section 2.3 and Fig. 2.4	☒ Yes ☐ No ☐ N/A Citation:	Intent to use BAS (15.27.500, 15.27.501); functional objectives (15.27.504); general protection standards and mitigation sequencing (15.27.509(N) → 15.27.307). Protection varies by stream type via fixed buffers (15.27.510).
D. Where a channel migration zone (CMZ) is present, does the RMZ begin on the outer edge of the CMZ to the extent practicable (meaning, include areas having the potential to provide riparian functions and exclude functionally disconnected areas)?	Section 2.3.3(B)	☒ Yes ☐ No ☐ N/A Citation:	CMZ mapped informationally (15.27.507(B)(3)), but buffers are measured from OHWM, not CMZ edge (15.27.510(A)).
E. Is the RMZ width extended beyond a 100-foot minimum where needed to provide adequate pollution removal functions from upland adjacent land uses (i.e., especially at sites with steep slopes or poorly drained soils or where upland uses contribute nitrogen based on expert assessment)?	Section 2.3.5, step 3	☐ Yes ☒ No ☐ N/A Citation:	No explicit expansion criteria tied to pollution removal; only buffer averaging/road exception and minimum widths (15.27.510(A)(1)-(3), (B)).

Riparian Management Recommendation (RMR)	Location in RMR Vol. 2	Citation in CAO	How Addressed in CAO (or why not addressed in CAO)
F. In locations where riverine wetlands are present, do the RMZs incorporate them using the appropriate wetland delineation, assessment methodology, and protection (per Ecology)?	Section 2.3.5, step 2 Section 3.2.2, #2	☐ Yes ☒ No ☐ N/A Citation:	Wetland buffers handled in a separate section (referenced 15.27.604); this FWHCA part sets stream/lake/pond buffers from OHWM (15.27.510). No integrated riverine-wetland RMZ provision in this excerpt.
G. Does FWHCA designation also support terrestrial species, habitat connectivity, and Priority Habitats within and adjacent to RMZs?	Section 3.2.2, #2	☒ Yes ☐ No ☐ N/A Citation:	PHS species/habitats designated and protected (15.27.502(B)(1)); functional properties include migration corridors & wildlife habitat (15.27.504(A)(6), (E)).
H. Does your CAO apply the mitigation sequence to ensure no net loss of riparian ecological functions and values due to permitted activities within RMZs delineated consistent with question B (or equivalent methods)?	Section 3.2.1	☒ Yes ☐ No ☐ N/A Citation:	Explicitly requires mitigation sequencing per 15.27.307 (15.27.509(N)); restoration standards provided (15.27.517).
I. Does your CAO require that applicants provide a Critical Areas Report prepared by a qualified professional for projects in or near known or suspected FWHCAs, and require that a Habitat Management Plan be provided if FWHCAs are found to be present and/or impacted by the project?	Section 3.2.2	☐ Yes ☒ No ☐ N/A Citation:	A "critical areas report by a qualified professional" is required only for buffer averaging/road adjustments (15.27.510(A)(2)(b), (3)(b)), not universally. "Habitat management recommendations" apply to nominating local-importance habitats (15.27.502(B)(2)(c)), not a project-level HMP requirement.
J. Does your CAO require that On-Site Sewage Systems are located outside of RMZs?	Section 3.2.1, #1	☐ Yes ☒ No ☐ N/A Citation:	Wastewater/water systems standards referenced for flood hazards (15.27.512(J) → 15.27.407(E)); no RMZ-specific OSS siting prohibition.
K. Does your CAO prohibit new development that requires bank protection/hardening now or in the future (taking into consideration channel migration, wind and wave action, and climate change)?	Section 3.2.1, #2	☐ Yes ☒ No ☐ N/A Citation:	Bank stabilization is allowed under conditions and with preferences for non-structural methods, but not categorically prohibited (15.27.513).

Riparian Management Recommendation (RMR)	Location in RMR Vol. 2	Citation in CAO	How Addressed in CAO (or why not addressed in CAO)
L. Could other regulations conflict with your CAO and inadvertently impact riparian functions (e.g., clearing, grading, and filling ordinances)? If so, does your code include a provision that the regulation which provides greater protection to critical areas shall apply?	Section 3.2.1, #3 CA Handbook , Ch. 4	☒ Yes ☐ No ☐ N/A Citation:	YMC 15.27.140(B)(3) includes a provision clarifying conflicts with other lawfully adopted municipal regulations must apply the most restrictive standards.
M. Does the issuance of an exemption letter or permit for invasive and/or noxious plant removal require that impacts to fish, wildlife, and habitat are minimized (e.g., hand weeding with light equipment, use only Ecology-approved aquatic herbicides and adjuvants, avoid use of hazardous substances, and avoid soil compaction)?	Section 3.2.1, #4	☐ Yes ☒ No ☐ N/A Citation:	YMC 15.27.303(H) (Minor activities allowed without a permit or exemption.) permits noxious weed control within vegetated buffers and specifies that hand removal or spraying of individual plants shall be permitted but no area-wide vegetation removal or grubbing is permitted. No direct references to Ecology-approved herbicides, avoiding hazardous substances, or avoiding soil compaction is included in this provision. General disturbance minimization exists with relations to wetlands (15.27.509(B)–(H)), but no specific exemption standards are stated here.
N. Does your CAO include all of the following provisions? - define a “hazard tree” as a threat to life, property, or public safety, - require that the method of hazard tree removal not adversely affect riparian ecosystem functions to the extent practicable, - encourage the creation of snags (Priority Habitat features) rather than complete tree removal, - involve an avoidance and minimization of damage to remaining trees and vegetation within the RMZ, and - require a qualified arborist to evaluate requests for hazard tree removal	Section 3.2.1, #7	☐ Yes ☒ No ☐ N/A Citation:	YMC 15.27.305(D) addresses exemptions for FWHCAs where hazards trees pose a threat to public safety, or imminent risk of damage to public or private property, but this provisions does not address the individual bullet points listed. Additionally, the city has recent issued a Urban Forestry Management Plan supports efforts regarding hazards tree removal in publicly owned spaces.
O. Does your CAO incorporate a pathway to mitigate or compensate for impacts to RMZs arising from emergency activities (e.g., bank stabilization to address imminent threats to homes)?	Section 3.2.1, #9	☐ Yes ☒ No ☐ N/A Citation:	YMC 15.27.305(D) addresses exemptions for FWHCAs where emergency construction for protecting property from damage, but does not specify RMZs due to the lack of that specific designation. YMC 15.27.513 further addresses threats to existing property, structures, and facilities regarding bank stabilization.
P. Does your CAO require that impacts and disturbances from recreational trails and interpretive facilities are minimized to the extent practicable, informed by Priority Habitats and Species data and management recommendations?	Section 3.2.1, #10	☐ Yes ☒ No ☐ N/A Citation:	YMC 15.27.303 notes the creation of private trails that do not cross streams or wetlands as minor activities allowed without a permit of exemption process, but the relation to PHS is not present.

Riparian Management Recommendation (RMR)	Location in RMR Vol. 2	Citation in CAO	How Addressed in CAO (or why not addressed in CAO)
Q. Does your CAO include watershed-scale management considerations such as protecting and restoring watershed processes (e.g., channel movement, sediment transport); stormwater management; land management for stream temperatures; and protecting and restoring longitudinal, lateral, and vertical connectivity?	Section 3.4	☐ Yes ☒ No ☐ N/A Citation:	Functions and general standards nod to runoff/erosion/connectivity but no watershed-scale programmatic provisions are provided.
R. Does the CAO include measures for bolstering climate resilience within critical areas (i.e., increase habitat connectivity, plan for a wider range of stream flows, and increase stream shading)?	Section 1.4, #6 Section 3.4.1, GMA Climate Guidance	☐ Yes ☒ No ☐ N/A Citation:	Not addressed.
S. Is there a stated goal or intent in your CAO to retain and restore CMZs and RMZs to the extent practicable to maximize riparian function over time?	Section 4.2	☐ Yes ☒ No ☐ N/A Citation:	CMZ are referenced in relation to floodplain management, but existing provisions are present regarding retention and restoration of CMZ or RMZs.
T. Does your CAO promote incentives and include a streamlined review process for riparian restoration or enhancement projects to help facilitate projects that go “above and beyond” minimum regulatory requirements?	Section 4.3	☐ Yes ☒ No ☐ N/A Citation:	Intent mentions “voluntary agreements or government incentives”, but no actual incentive tools or streamlined review path are laid out.
U. Does your CAO establish a monitoring and adaptive management program designed to: - collect information on CAO effectiveness, - evaluate the potential for exemptions and variances to cumulatively affect riparian functions across your jurisdiction, and - improve permit implementation?	Section 3.2, Chapter 5; CA Handbook , Ch. 7	☐ Yes ☒ No ☐ N/A Citation:	Not included in this section