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Clackamas County
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CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS

Policy Session Worksheet

Presentation Date: March 17, 2026 **Approx. Start Time:** 2:00 PM **Approx. Length:** 60 mins

Presentation Title: File ZDO-290: Clear and Objective Standards

Department: Transportation and Development (DTD)

Presenters: Dan Johnson, DTD Director, and Jennifer Hughes, Planning Director

WHAT ACTION ARE YOU REQUESTING FROM THE BOARD?

Board direction on four potential amendments to the County's Zoning & Development Ordinance (ZDO): streams/wetlands map updates, landslide hazard map updates, wildfire hazard map creation and tree protection regulations.

EXECUTIVE SUMMARY:

Staff requests policy direction on four issues that have emerged during the development of clear and objective ZDO standards for implementation of Statewide Planning Goals 5 (*Natural Resources, Scenic and Historic Areas, and Open Spaces*), 6 (*Air, Water and Land Resources Quality*), 7 (*Areas Subject to Natural Hazards*), and 15 (*Willamette River Greenway*).

Specifically, should the county:

- A. Update the regulatory maps of streams and wetlands;
- B. Update the regulatory maps of mass movement hazards;
- C. Adopt regulatory maps of fire hazard areas; and
- D. Implement clear and objective upland tree protection regulations in the urban area.

State law requires that local governments apply clear and objective standards to the development of housing. Alternative discretionary standards can be provided for a developer to opt into, but there must be an available clear and objective pathway. In recent years, this requirement has expanded from some urban lands to all urban lands and, more recently, to unincorporated communities and rural residential areas; only the county's Exclusive Farm Use, Timber and Ag/Forest zones outside urban growth boundaries are exempt.

Planning and Zoning is working on two separate efforts to bring the county's Zoning and Development Ordinance (ZDO) into compliance.

- **File ZDO-289: ZDO Diagnostic Report.** This project is partially funded by Metro and focuses on infrastructure, site design and building design standards. A policy session to discuss this project is scheduled for March 31, 2026.
- **File ZDO-290: Clear and Objective Standards for Implementation of Statewide Planning Goals 5, 6, 7 and 15.** This project, which is the subject of today's policy session, is partially funded by the Department of Land Conservation and Development (DLCD) and focuses on standards that regulate development in areas that are environmentally sensitive, prone to natural hazards or designated for the protection of certain critical resources or services. ZDO-290 is anticipated to be ready for public hearings late this year with a goal of adopting it by February 2027.

For ZDO-290, consultants retained and funded by DLCDC have completed a detailed audit of the relevant ZDO sections and identified provisions that require amendment (see **Attachment A**). In addition, the consultants and staff have prepared a memo that provides greater detail on key issues that emerged from the code audit (see **Attachment B**). The consultants and staff met with the Planning Commission for two study sessions late last year, and the consultants have begun drafting a first phase of potential ZDO amendments. A second phase of code drafting is pending Board direction on the questions listed above.

Attachment C summarizes the four policy questions, identifies key considerations, and provides the minimum requirement and alternative approaches for addressing each issue. The following discussion provides additional context.

A. Should the county update the regulatory maps of streams and wetlands?

Statewide Planning Goal 5 requires the county to have a mapped inventory of protected streams and wetlands. However, the Goal 6 water quality requirements do not mandate mapping. As a result, the county's current regulatory framework is a mix, where certain mapped streams and wetlands are regulated, and streams and wetlands not on the adopted maps also may be regulated. This approach is confusing for staff and the public; our consultants have also advised that regulating unmapped features is inconsistent with the requirement to have clear and objective standards.

Areas within the Metro Urban Growth Boundary (UGB) or Metro Service District Boundary

Rivers, streams and wetlands are regulated under Goal 5 by adopted Habitat Conservation Area maps. These rules derive from Metro's code, which the county is subject to, and no mapping changes appear needed.

Rivers, streams and wetlands are regulated under Goal 6 using reference mapping, also derived from Metro's code. However, current rules also require unmapped streams and wetlands to be regulated if they meet certain standards. Staff are exploring whether the reference maps can be made compliant, but regulating unmapped streams and wetlands presents a greater challenge. To capture unmapped streams and wetlands, a new inventory would need to be created. This is beyond the scope of this project as currently envisioned; the amount of additional time and resources needed would be dependent on the degree to which other authoritative mapping sources exist because the alternative is hiring consultants to complete our own mapping.

Areas outside the UGB or Metro Service District Boundary

With the exception of a small number of mapped wetlands in the unincorporated communities near Mt. Hood, rural wetlands are not regulated at the county level. However, county staff are required to notify the Oregon Department of State Lands (DSL) of development activity that may impact wetlands on the Statewide Wetland Inventory, and a state and federal permitting process applies. Staff are not aware of any requirement to change this framework.

Rivers and streams are regulated under Goal 5 by adopted River and Stream Conservation Area maps. The regulated "principal" rivers include all of the county's major rivers. The regulated streams were identified as fish-bearing by the Oregon Department of Forestry (ODF) in 1994, and the ODF maps were the best resource available when the county adopted its current regulations. Streams not mapped as fish-bearing are regulated only by ZDO text, presumably under Goal 6. The lack of adopted mapping and the discretionary nature of this text are not compliant with the clear and objective standards requirement.

ODF has newer stream mapping that has been created with updated technology and reflects stream migration and the removal of fish passage barriers since the earlier maps adopted by the county. This data could be used for two purposes: updating the fish-bearing stream inventory used to implement Goal 5 and regulating other streams for water quality purposes under Goal 6. Due to state regulations for Goal 5, changing the Goal 5 inventory would require relatively extensive analysis that is beyond the scope of the current project. Adopting maps to implement water quality regulations under Goal 6 does not require the same level of analysis, so the primary driver of staff time would be the public outreach needed to explain the new mapping and regulations.

Refer to **Attachment C** for options and key considerations.

B. Should the county update the regulatory maps of mass movement hazards?

Statewide Planning Goal 7 requires the county to have implementing regulations to reduce the risk to people and property from landslides. The ZDO refers to these as “mass movement hazards” and regulates development in the northwestern part of the county using Oregon Department of Geology and Mineral Industries (DOGAMI) maps that were created through aerial image review and field research conducted in the 1970s.

DOGAMI’s updated landslide inventory uses light detection and ranging based measurements and mapping to depict the earth’s surface and show the locations of past landslides. The updated inventory also includes the northeastern part of the county as well as rapidly moving landslide hazards that ORS 195.260 appears to require local governments to regulate. Although some areas would be removed from the landslide inventory, the net result of adopting the updated mapping would be a significant increase in the number of properties subject to the county’s landslide hazard regulations.

The county’s regulations applicable to mapped landslides must be amended to be clear and objective. Currently, however, the core of these requirements is a geotechnical evaluation prepared by a qualified professional, and staff anticipates that the proposed amendments will rely even more heavily on that approach. In short, development in these areas may still be feasible, but it would need to be done in accordance with the recommendations established by a site-specific technical evaluation.

Refer to **Attachment C** for options and key considerations.

C. Should the county adopt regulatory maps of wildfire hazard areas?

Statewide Planning Goal 7 requires the county to have implementing regulations to reduce the risk to people and property from wildfires. The ZDO includes standards that apply to “fire hazard areas,” standards that will need to be amended or repealed because they are not clear and objective. There is no adopted map of these areas, and the Oregon Wildfire Risk maps produced by the state were repealed last year after generating significant public objections.

Refer to **Attachment C** for options and key considerations.

D. Should the county implement clear and objective upland tree protection regulations in the urban area?

The ZDO currently regulates tree protection at the time of development through standards that are not clear and objective. As written, these regulations apply throughout the county; however, the Oregon Forest Practices Act preempts most tree-related regulations outside urban growth boundaries. Staff have not identified a link between the current tree regulations and compliance with any of the Statewide Planning Goals; therefore, staff believe that the county may repeal the current discretionary standards. Another approach could be the adoption of clear and objective tree protection standards for the area inside the Metro UGB.

The county considered the adoption of a comprehensive urban tree ordinance in 2010. That effort surfaced strong feelings in favor and in opposition. The result was the adoption of a disincentive to tree cutting prior to development review rather than the comprehensive regulations initially envisioned. Tree removal in river, stream and wetland buffers is regulated through the provisions discussed above under A.

Refer to **Attachment C** for options and key considerations.

FINANCIAL IMPLICATIONS (current year and ongoing):

Is this item in your current budget? YES NO

What is the cost? The total estimated cost is \$327,500 with an estimated \$200,000 for existing staff time, including overhead; and \$127,500 in consultant time.

What is the funding source? County staff time is funded by the General Fund through the Long-Range Planning program budget. Consultant time is funded by the State of Oregon through its Housing Accountability and Production Office and the Department of Land Conservation and Development.

STRATEGIC PLAN ALIGNMENT:

- How does this item align with your Department's Strategic Business Plan goals?

The project aligns with the Long-Range Planning Program's purpose of providing land use and transportation plan development, analysis, coordination, and public engagement services to residents; businesses; local, regional, and state partners; and County decision-makers so they can plan and invest based on a coordinated set of goals and policies that guide future development.

- How does this item align with the County's Performance Clackamas goals?

This item aligns with the Performance Clackamas goals of **Safe, Secure and Livable Communities**, **Vibrant Economy** and **Public Trust in Good Government** by providing for additional housing opportunities, clarifying and streamlining development regulations and processes, and ensuring that local codes conform to state law.

LEGAL/POLICY REQUIREMENTS: ORS 197A.400 requires the county to adopt and apply only clear and objective standards, conditions and procedures regulating the development of housing. State law also requires that the county's land use regulations be consistent with the Statewide Planning Goals.

PUBLIC/GOVERNMENTAL PARTICIPATION: Public notice will be provided, as required by law, for any proposed amendments to the Plan and ZDO that come before the Planning Commission and Board for formal consideration at a public hearing.

OPTIONS AND RECOMMENDATIONS:

1. Streams/Wetlands

- a. Direct staff to draft ZDO amendments to: In the urban area, continue to use existing adopted stream and wetland inventories and repeal discretionary water quality standards for unmapped streams and wetlands. In the rural area, continue to defer to the Department of State Lands/Army Corps of Engineers for wetland regulations, continue to use existing adopted stream inventory, and repeal discretionary water quality standards for streams not on the adopted inventory.
- b. Direct staff to draft ZDO amendments to: In the urban area, complete an updated urban stream and wetland inventory under Statewide Planning Goal 6 for water quality. In the rural area, adopt an updated Goal 5 stream inventory using updated state mapping, which requires an updated Economic, Social, Environmental and Energy analysis under state Goal 5 regulations, or adopt an updated Goal 6 stream inventory using updated state mapping.

Recommendation: Option 1a: Direct staff to draft ZDO amendments to: In the urban area, continue to use existing adopted stream and wetland inventories and repeal discretionary water quality standards for unmapped streams and wetlands. In the rural area, continue to defer to the Department of State Lands/Army Corps of Engineers for wetland regulations, continue to use existing adopted stream inventory, and repeal discretionary water quality standards for streams not on the adopted inventory.

2. Landslide Hazards

- a. Direct staff to draft ZDO amendments to continue to use the adopted landslide hazard maps from the 1970s with the potential addition of rapidly moving landslide hazards mapped by DOGAMI in 2002.
- b. Direct staff to draft ZDO amendments to replace the existing landslide hazard maps with new mapping available from DOGAMI.

Recommendation: Option 2b: Direct staff to draft ZDO amendments to replace the existing landslide hazard maps with new mapping available from DOGAMI.

3. Wildfire Hazards

- a. Direct staff to draft ZDO amendments to repeal the general regulations for unmapped “fire hazard areas” and rely on other ZDO standards.
- b. Direct staff to draft ZDO amendments to Apply clear and objective wildfire risk reduction regulations to all properties countywide or to specific subsets of properties, possibly based on zoning. Examples of such regulations are fire hardening for structures (implemented through the building code rather than the zoning code) and defensible space.
- c. Direct staff to draft ZDO amendments to establish new mapping and apply wildfire risk reduction regulations to areas identified as being at high risk based on factors that would need to be determined (e.g., available water supply, proximity to a fire station, proximity to wildland areas).

Recommendation: Option 3a: Direct staff to draft ZDO amendments to repeal the general regulations for unmapped “fire hazard areas” and rely on other ZDO standards.

4. Tree Protection

- a. Direct staff to draft ZDO amendments to repeal the upland tree protection regulations for housing development.
- b. Direct staff to draft ZDO amendments to repeal the upland tree protection regulations for all development.
- c. Direct staff to draft ZDO amendments to develop clear and objective upland tree protection regulations, either by expanding the scope of the current project or through a subsequent project.

Recommendation: Option 4a: Direct staff to draft ZDO amendments to repeal the upland tree protection regulations for housing development.

ATTACHMENTS:

Attachment A: PowerPoint Presentation

Attachment B: Planning Commission Study Session Supplemental Memo

Attachment C: Summary Table of Questions for Board Discussion

Attachment D: Code Audit Summary

SUBMITTED BY:

Division Director/Head Approval _____

Department Director/Head Approval _____

County Administrator Approval _____

For information on this issue or copies of attachments, please contact Jennifer Hughes @ 503-742-4518 or jenniferh@clackamas.us



File ZDO-290: Clear and Objective Standards for Implementation of Statewide Planning Goals 5, 6, 7 and 15

**Board of County Commissioners Policy Session
March 17, 2026**

Background

- Why is this project necessary?
 - State law requires that standards applied to most housing must be “clear and objective.”
 - The county’s zoning code is not compliant with this requirement.
- Why can’t we simply repeal the noncompliant regulations?
 - Policy reasons
 - Legal reasons
- Where are we in the zoning code update process?

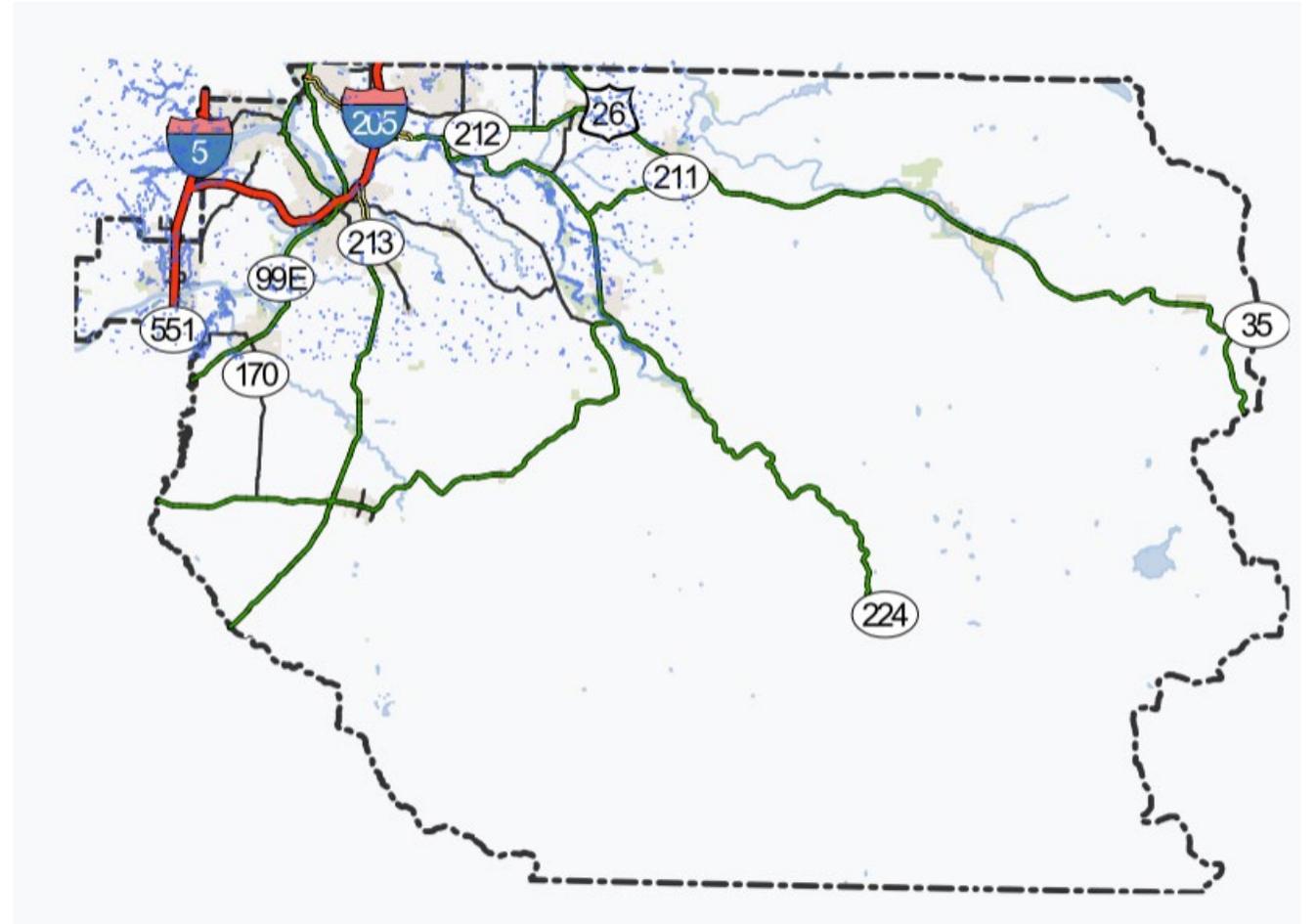
Policy Questions

- Should the county:

- Update the regulatory maps of streams and wetlands?
- Update the regulatory maps of mass movement hazards?
- Adopt regulatory maps of fire hazard areas
- Implement clear and objective upland tree protection regulations in the urban area

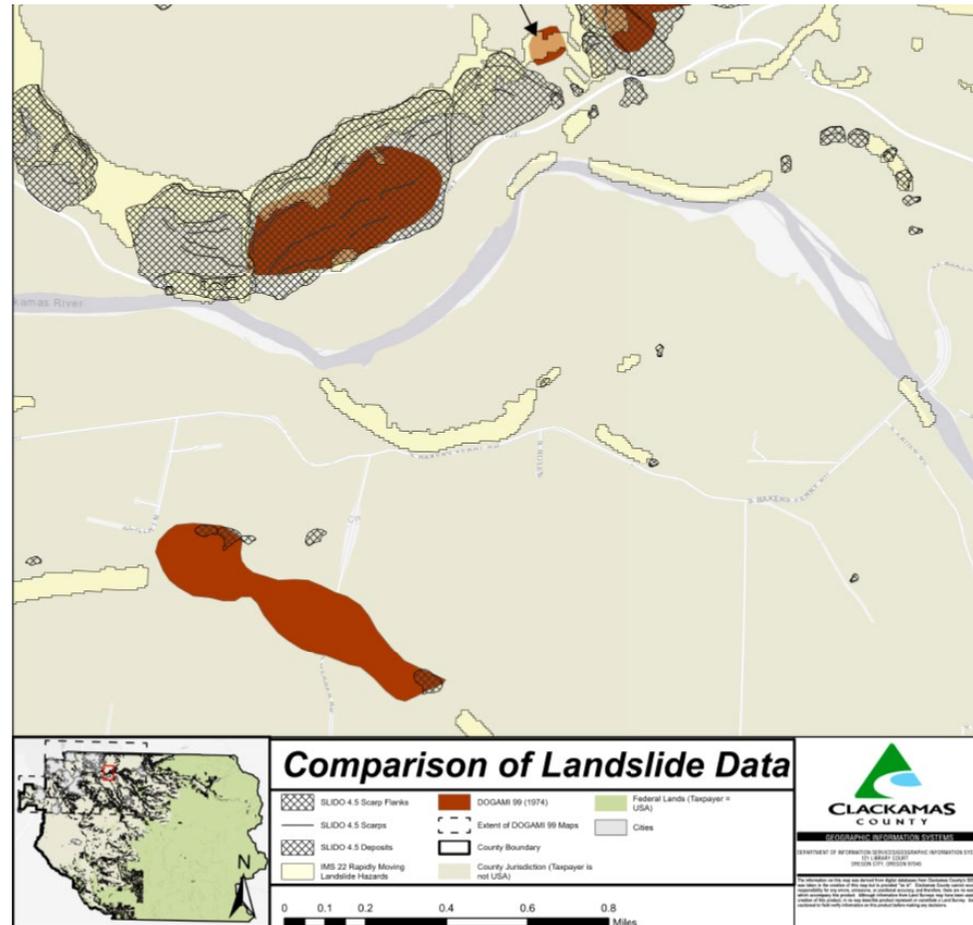
Should the county update the regulatory maps of streams and wetlands?

- Adopted maps are out-of-date/incomplete
- Minimum requirement: repeal discretionary water quality standards for unmapped streams and wetlands
- Alternative: adopt updated maps
- New mapping expands the scope of the project, which increases cost and property owner impacts
- Some loss of water quality protection may result if new maps are not adopted



Should the county update the regulatory maps of mass movement hazards?

- Adopted maps are out-of-date
- Minimum requirement: continue to use the adopted landslide hazard maps from the 1970s, possibly adding rapidly moving landslide hazards mapped in 2002
- Alternative: adopt updated mapping
- Net increase of about 2,650 tax lots subject to landslide hazard development regulations
- Projected impact is a requirement to complete a geotechnical study and comply with its recommendations



Should the county adopt regulatory maps of fire hazard areas?

- No currently adopted maps of ZDO-regulated “fire hazard areas”
- Minimum requirement: repeal discretionary fire hazard area standards and rely on other ZDO standards. Nonregulatory measures could also be employed.
- Alternative: adopt clear and objective standards and regulate countywide, based on zoning, or by adopting new mapping



Should the county implement clear and objective upland tree protection regulations in the urban area?

- Current upland tree protection regulations for development are not clear and objective
- Minimum requirement: repeal the upland tree protection regulations for housing development
- Alternative: repeal the upland tree protection regulations for **all** development
- Alternative: develop clear and objective upland tree protection regulations, either by expanding the scope of ZDO-290 or through a subsequent project



Staff Recommendation

■ Direct staff to draft ZDO amendments as follows:

- In the urban area, continue to use existing adopted stream and wetland inventories and repeal discretionary water quality standards for unmapped streams and wetlands. In the rural area, continue to defer to the Department of State Lands/Army Corps of Engineers for wetland regulations, continue to use existing adopted stream inventory, and repeal discretionary water quality standards not on the adopted inventory.
- Replace the existing landslide hazard maps with new mapping available from DOGAMI.
- Repeal the general regulations for unmapped “fire hazard areas” and rely on other ZDO standards. Nonregulatory measures, such as public information and education, could also be employed.
- Repeal the upland tree protection regulations for housing development.



TO: Clackamas County Planning Commission

FROM: Brandon Crawford, Kate Rogers, and Cathy Corliss, MIG
Joy Fields, Karen Buehrig, and Jennifer Hughes, Clackamas County Planning and Zoning

RE: **Planning Commission Study Session Supplemental Memo**
ZDO 290 – Clear and Objective Code Amendments
Creating clarity for housing development standards related to rivers, streams, habitat, and other natural resources

DATE: December 1, 2025

Introduction

This memo provides additional information about key discussion topics for the Clear and Objective Code Audit, which will be the focus of the Planning Commission study session on December 8, 2025. This memo is intended to supplement the Code Audit Summary (dated 10/31/2025) included in the November 10 study session packet. These discussion topics were previewed at the study session on November 10, and they will be discussed in further detail at the December 8 meeting.

For each topic, this memo elaborates on some of the options for the Planning Commission to consider, which will help facilitate the discussion at the meeting. For more context/background on each of the discussion topics, refer to the applicable section from the Code Audit Summary memo. The Planning Commission's input on these topics will provide direction for the draft amendments to the ZDO.

1. Consolidating ZDO Sections

The ZDO contains multiple layers of regulations, some of which overlap or conflict. There is interest in potentially consolidating some of the regulations so they are easier to understand and implement, which could help streamline review by staff and simplify the process for applicants.

Water Resources Sections

There are several chapters that regulate different water resources, including rivers/streams, riparian areas, and wetlands. The Project Team's initial recommendation is to consolidate overlapping code sections, where feasible.

Consolidate ZDO 709 Water Quality Resource Area (WQRA) into 706 Habitat Conservation Area (HCA)

- Both of these sections apply to natural resources inside the Metro UGB and Metropolitan Service District (MSD), including riparian corridors and some wetlands, although the WQRA is not applicable inside Clackamas County Service District No. 1, which is the surface water management district for a large portion of the area. Sections 709 and 706 implement Metro UGMFP Title 3 and Title 13, respectively.
- The Title 13 inventory covers much of the same area as the Title 3 inventory.

Historical and Planning Practice Context:

- When Metro adopted Title 13 many of the Title 3 requirements were deleted from the UGMFP in favor of Title 13. Some jurisdictions followed suit and consolidated their Title 3 regulations with their Title 13 regulations. County staff considered consolidation but were discouraged from taking that path due to the rigorous analysis that Metro staff indicated they would expect. Instead, the County adopted the Metro model codes for both Title 3 and Title 13, albeit with clarification and reorganization.
- The County’s WQRA mapping relies on the Metro Title 3 mapped inventory, the Oregon Statewide Wetland Inventory, and other urban wetlands mapped by the County. However, not all resources are mapped. New features may be identified during development review, which must then be regulated under ZDO 709. However, the process for adding new features is discretionary and needs to be revised.
- Most wetlands are on the Statewide Wetland Inventory and subject to the requirements of the Department of State Lands (DSL). DSL’s permitting process offers opportunities to identify and protect wetlands during development.
- Non-wetland resources (i.e., streams) are generally covered by the HCA inventory; however, very small streams may not be mapped.

Summary of Considerations for Consolidating:

Pros	Cons
✓ Both applicable inside Metro UGB and MSD.	✗ Because WQRA is not applicable inside CCSD #1 surface water management district boundary, both the district water quality regulations and the HCA regulations will continue to apply within district boundary.
✓ Inventories Mapped by Metro and Department of State Lands.	
✓ Much of WQRA area also falls within HCA areas.	
✓ A single overlay should make the code easier to use and less confusing for applicants and staff.	✗ Eliminates the ability to add a WQRA to the inventory if found during development or land use review.

Consolidate ZDO 1002.04 River and Stream Corridors into 704 River and Stream Conservation Area (RSCA) or Repeal ZDO 1002.04

- Both Section 1002.04 and Section 704 RSCA apply to land that is outside the Metro UGB and MSD.
- RSCA’s primary means of protecting rivers is a minimum setback from streams; the minimum setback depth depends on the size of the stream (50 to 150 feet).
- Section 1002.04 requires preservation of river and stream corridors “to the maximum extent feasible.” It also requires minimum setbacks from streams, but the setback depends on evaluation of discretionary criteria.

Historical and Planning Practice Context:

- Because Section 1002.04 applies discretionary criteria, in practice it is only applied to discretionary applications such as Conditional Use.
- RSCA relies on mapping by the Oregon Departments of Forestry (DOF) and Fish & Wildlife (ODFW) for “fish bearing streams.” As such, rural streams are not included in the inventory if they are not fish bearing.
- When the ZDO was amended to enact HCA and WQRA provisions in the Metro UGB and MSD, ZDO 1002.04 was retained to regulate non-fish-bearing streams outside these areas.

Summary of Considerations for Consolidating:

Pros	Cons
<ul style="list-style-type: none"> ✓ Both applicable to rivers and streams in rural areas. ✓ Removes redundancy. ✓ Provides clarity and standards for when and how river and stream corridors are protected. ✓ Changes would make the code simpler. 	<ul style="list-style-type: none"> ✗ Eliminates consideration of non-RSCA streams for avoidance and protection during discretionary land use reviews.

Consolidate ZDO 705 Willamette River Greenway (WRG) buffer requirements with Sections 704 (RSCA) and with combined Section 706 (HCA) / 709 (WQRA)

- The WRG applies to areas adjacent to the Willamette River in unincorporated areas of the county (inside and outside the UGB). Within the Metro boundary, this area is also covered by the HCA (ZDO 706) and its requirements for habitat protection and native vegetation
- The WRG includes minimum setback and “vegetative buffer or filter strip” requirements of 100-150 feet and discretionary criteria related to public access, open space/vegetation, and setbacks from the river.

Summary of Considerations for Consolidating:

Pros	Cons
<ul style="list-style-type: none"> ✓ Removes redundancy. ✓ Changes would make the code simpler. 	<ul style="list-style-type: none"> ✗ Some provisions of the WRG would be retained (e.g., the dock standards), so changes would put Willamette River standards in two sections of the code unless the other standards were eliminated. ✗ The HCA is generally narrower than the WRG, which may complicate (but not prevent) the consolidation.

Natural Features (ZDO 1002)

The Natural Features section addresses a range of resources (e.g., hillsides, river and stream corridors, and other open space resources) and responds to different Statewide Planning Goals (Goals 5, 6, and 7).

Because most of these resources are covered by regulations in other ZDO chapters, many of the regulations can be removed or consolidated into other sections.

Consolidate ZDO 1002.01 (Hillsides) into 1003 (Hazards to Safety)

- The Hillsides provisions in Section 1002.01 regulate development on slopes of 20% or greater. The requirements address both geologic hazards and preservation of the natural and scenic qualities of hillside areas.
- Section 1003.02 (Standards and Criteria for Mass Movement Hazard Area Development) applies to areas of land movement, slump or earth flow, and mud or debris flow. These areas are mapped by the Oregon Department of Geology and Mineral Industries (DOGAMI).
- Both sections 1002.01 and 1003.02 require a geologic study to ensure the site is suitable for the proposed development, although 1002.01 requires it only on more steeply sloped areas.

Historical and Planning Practice Context:

- Without independent expertise in geologic studies, staff has historically relied on the expertise of the applicant’s consultant and has required compliance with their recommendations.

Summary of Considerations for Consolidating:

Pros	Cons
<ul style="list-style-type: none"> ✓ Removes redundancy. ✓ Changes would make the code simpler. 	<ul style="list-style-type: none"> ✗ By retaining only the hazard-focused standards, the regulation of steep slopes for natural or scenic purposes is eliminated.

Consolidate ZDO 1002.06 (Mt. Hood Resource Protection Open Space) AND 1011 (Open Space)

- Section 1002.06 addresses water quality in areas designated as “Resource Protection Open Space” in the Comprehensive Plan for various Mount Hood villages.
- Section 1011 regulates wetlands in the Mt. Hood Community Plan area.
- There may be opportunities to consolidate these sections and establish a single set of C&O criteria for water quality and wetland protection.

Historical and Planning Practice Context:

- Because Section 1002.06 applies discretionary criteria, in practice it is only applied to discretionary applications such as Conditional Use.

Summary of Considerations for Consolidating:

Pros	Cons
✓ Removes redundancy.	✗ None known.
✓ Provides clarity and standards for when and how Mt. Hood Resource Protection Open Space is protected.	
✓ Changes would make the code simpler.	

Open Space/Parks (ZDO 1011)

Initial Recommendation: Remove or consolidate all sections

This section applies to urban areas of the County (i.e., inside the Metro UGB) and to the various Mount Hood Villages. Specifically, the section applies to areas identified as Open Space on the North Urban Area Land Use Plan Map and on the Mt. Hood Community Plan Map.

- The resources listed in this section are divided into high-priority and second-priority open space. High-priority open space must be “preserved outright,” whereas second-priority open space is regulated on a case-by-case basis using discretionary criteria.
- The applicable resources have significant overlap with other goal-protected areas regulated by other ZDO sections – such as the Willamette River Greenway, hillsides, rivers and streams, and flood hazards.
- The County could consider removing or consolidating most of ZDO 1011 with other sections of the code. Removing open space regulations would also necessitate amendments to the County’s Comprehensive Plan Map, which identifies open space areas on the map.

Historical and Planning Practice Context:

- Open Space requirements under ZDO 1011 have been inconsistently implemented because of their vagueness and subjectivity.
- Note, Open Space protection under Goal 5 is not mandatory under the current administrative rules (Division 23).

- The Open Space mapping pre-dates modern digital mapping capabilities, and in some cases, it is not specific regarding which natural feature led to the designation. The Open Space floodplain mapping is no longer consistent with the federally mapped special flood hazard areas regulated by Section 703.

Summary of Considerations for Consolidating:

Pros	Cons
<ul style="list-style-type: none"> ✓ Removes redundancy. ✓ Provides clarity and standards for when and how Open Space is protected. ✓ Changes would make the code simpler. 	<ul style="list-style-type: none"> ✗ Potentially, some Open Space areas may not be regulated by another code section. Staff are working to analyze the old Open Space mapping in an effort to better pinpoint the scope of these areas.

2. Aligning Comprehensive Plan and ZDO

The County’s policies for natural resources and hazards are found in Comprehensive Plan (“CP”) [Chapter 3: Natural Resources and Energy](#). These policies generally form the basis for the regulations in corresponding sections of the ZDO.

Some of the CP policies are very detailed, and are worded more like ZDO regulations rather than policy statements. Certain other CP policies do not have corresponding regulations in the ZDO.

The County will need to determine the following:

- Should overly specific policies be moved to the ZDO?
- Should new ZDO standards be crafted to support policies without regulations?
- What should be placed in the “parking lot” for a future effort?

Historical and Planning Practice Context:

- County staff have identified other issues with CP Chapter 3 that would be beyond the scope of the Clear & Objective Code Amendments project to address, including updating or removing outdated or inconsistent provisions.

Summary of Considerations:

Should overly specific policies be moved to the ZDO?

Pros	Cons
<ul style="list-style-type: none"> ✓ Removes redundancy. ✓ Ensures that development standards are easier for staff and applicants to locate. ✓ Ensures compliance with state law, which requires that the standards for some types of applications are housed in the zoning code. 	<ul style="list-style-type: none"> ✗ New generalized policies would need to be crafted to replace the specific standards.
<p>✓ / ✗ Moving development standards from the CP to the ZDO may have the effect of applying those standards to additional types of development (both pro and con).</p>	

Should new ZDO standards be crafted to support policies without regulations?

Pros	Cons
<ul style="list-style-type: none"> ✓ Ensures the ZDO implements the Comprehensive Plan policies. 	<ul style="list-style-type: none"> ✗ Some policies do not have implementing regulations in the ZDO, and crafting new regulations would be outside of this project, require Measure 56 notice and involve significant amounts of outreach.

3. Scope of Clear and Objective (C&O) Standards

The County is required to provide C&O standards for housing within urban growth boundaries and certain other zoning districts (ORS 197A.400). As summarized in the table below, the County will need to decide whether C&O standards for natural resources and hazards should apply broadly to all uses and in all zones (more expansive), or if they should only apply where required by statute – i.e., only to housing and only in zones where required (more limited). The County can also combine these approaches and apply C&O standards to some other zones or to non-residential uses where it makes sense.

More Expansive	More Limited
New C&O standards for all uses and in all zones?	Just where required? <ul style="list-style-type: none"> • Just for housing development? • Just urban areas, rural residential areas, and unincorporated communities?
A combination (some new C&O even where not required, depending on code section)	

General Considerations

C&O standards tend to be stricter than discretionary regulations, which are more loosely defined, and therefore, often more flexible. As such, an important consideration is whether to apply stricter C&O standards to more uses and in more areas. Keep in mind that flexibility via discretionary alternatives will still be available in code sections where regulations need to be revised.

The County should weigh the following considerations regarding a more expansive versus more limited approach.

More Expansive	More Limited
<ul style="list-style-type: none"> ✓ More internally consistent regulations make code easier to administer. ✗ Amendments more complex to write and explain. ✗ Different standards for different types of uses may be needed to adequately protect resources. 	<ul style="list-style-type: none"> ✓ Amendments somewhat less complex to write. ✓ Changes only impact properties where necessary. ✗ Does not resolve internal inconsistencies. ✗ Challenges with implementing vague/subjective standards for non-residential uses may continue.

- ✘ Changes could impact more properties, requiring additional notice.

The following sections take a closer look at the pros and cons of crafting C&O regulations for certain ZDO sections.

Creating C&O Criteria for Specific Sections

ZDO Section 1002.03 Trees and Wooded Areas

This section applies throughout the County. It requires groves of trees to be incorporated into development “wherever feasible,” and includes standards for avoiding “substantial disturbance” of tree groves, and other subjective requirements.

Historical and Planning Practice Context:

- The County engaged in an effort to adopt a comprehensive tree protection ordinance in 2010. Ultimately, however, the project was largely unsuccessful and revealed deep divisions between those in favor of tree protection and those in favor of private property rights. The code was amended to enact a disincentive to “excessive tree removal” in anticipation of development inside the Metro UGB. However, because the discretionary tree protection standards that apply to review of residential development cannot be applied under state law, the purpose of the disincentive to tree removal is undermined.
- The Oregon Forest Practices Act limits what local governments are authorized to implement in terms of tree protection. Staff are currently reviewing the scope of those restrictions.

Summary of Considerations:

Pros	Cons
✓ Changes would make the code simpler.	✘ Tree protection standards may cause significant public controversy.
✓ Changes could address and provide standards for the protection of the distinctive urban forests referenced in ZDO 1011.	✘ Difficult to craft clear and objective tree protection standards.
✓ Removes ambiguous standards or standards not currently implemented or effective.	

ZDO Section 1002.05 Deer and Elk Winter Range

This section implements habitat protections under Goal 5. Within the deer and elk winter range below 3,000 feet in elevation, development “shall be designed to minimize adverse wildlife impacts.”

The map below depicts rural residential properties within the winter range.

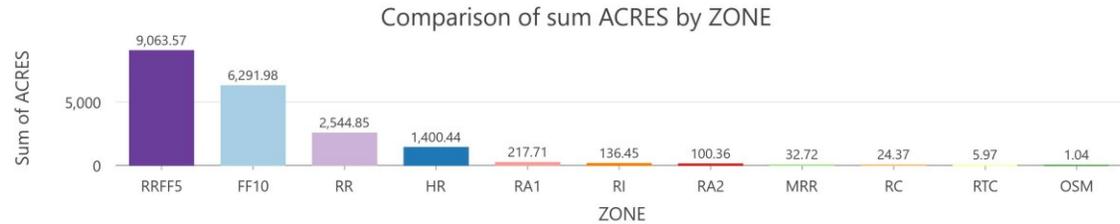
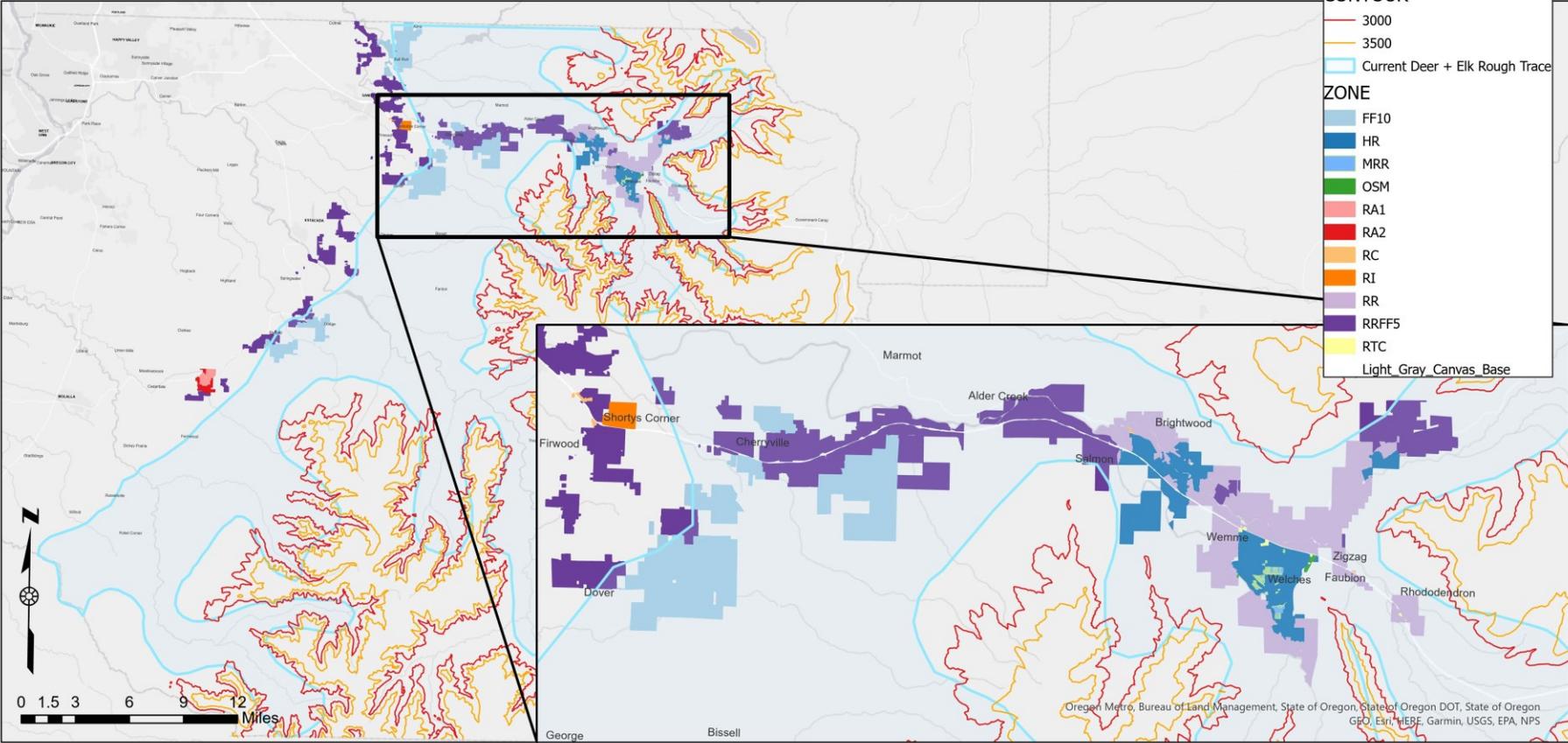
Historical and Planning Practice Context:

- Because Section 1002.05 applies discretionary criteria, in practice it is only applied to discretionary applications such as Conditional Use. In contrast to other zones, many dwellings in natural resource zones (Exclusive Farm Use, Timber, Ag/Forest) require review of a discretionary land use application, which allows this standard to be applied. These three zones also are not subject to the state’s C&O standards requirement.
- Despite there being a mechanism to apply the standards in some cases, the vagueness of the standard makes it challenging to apply.

Summary of Considerations:

Pros	Cons
✓ Changes would make the code simpler.	✗ Potentially controversial.
✓ Changes could address and provide standards for the protection of the habitat to provide effective implementation program for Goal 5 resource.	✗ Requires Measure 56 notice to be sent to all affected property owners.
✓ Removes ambiguous standards or standards not currently implemented or effective.	✗ Difficult to craft clear and objective standards for residential development that would be effective at protecting deer and elk winter range.

Property Zoning in Vicinity of Deer and Elk Winter Range



Any opinion or advice provided herein is informational only, and is based on any information specifically provided or reasonably available, as well as any applicable regulations in effect on the date the research was conducted. Any opinion or advice provided herein may be revised, particularly where new or contrary information becomes available, or in response to changes to state law or administrative rule, future legislative amendments of the Zoning and Development Ordinance, decisions of courts or administrative tribunals, or quasi-judicial land use.

Date: 09/26/2025
 Drawn By: NHart

The information provided was derived from digital databases from Clackamas County's GIS. Although we strive to provide the best data we can, we sometimes use data developed by jurisdictions outside Clackamas County. Therefore, Clackamas County cannot accept any responsibility for any errors, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product. Although information from Land Surveys may have been used in the creation of this product, in no way does this product represent or constitute a Land Survey. Users are strongly cautioned to verify all information before making any decisions.

ZDO Section 1003.02 Mass Movement Hazard Areas

As noted, Section 1003.02 (Standards and Criteria for Mass Movement Hazard Area Development) applies to areas of land movement, slump or earth flow, and mud or debris flow. The principal source of information for determining mass movement hazards is the DOGAMI Bulletin 99 and accompanying maps.

County staff are considering whether this section should be updated using the current Mass Movement Hazard survey and Statewide Landslide Information Database for Oregon (SLIDO) Maps.

Summary of Considerations:

Pros	Cons
<ul style="list-style-type: none">✓ Changes would make the code simpler.✓ Adds areas where modern mapping has identified potential landslide hazards.✓ Removes areas no longer identified as having landslide hazards from hazard overlay.	<ul style="list-style-type: none">✗ Measure 56 Notice for property owners being added to the hazard overlay.

Policy Question	Primary Policy Issue	Minimum Required	Alternative Approaches	Key Considerations	Planning Commission Feedback
<p>A.</p> <p>Should the county update the regulatory maps of streams and wetlands?</p>	<p>The county's adopted maps for regulating habitat protection and water quality do not include all streams and wetlands. Adopting updated mapping would require staff resources and is likely to result in regulating additional properties.</p>	<p>Urban Area: Continue to use existing adopted stream and wetland inventories. Repeal discretionary water quality standards for unmapped streams and wetlands.</p> <p>Rural Area: Continue to defer to the Department of State Lands/Army Corps of Engineers for wetland regulations. Continue to use existing adopted stream inventory. Repeal discretionary water quality standards for streams not on the adopted inventory.</p>	<p>Urban Area: Complete an updated urban stream and wetland inventory under Statewide Planning Goal 6 for water quality.</p> <p>Rural Area:</p> <ul style="list-style-type: none"> • Adopt an updated Goal 5 stream inventory using updated state mapping. Requires an updated Economic, Social, Environmental and Energy (ESEE) analysis under state Goal 5 regulations. • Adopt a Goal 6 stream inventory using state mapping. No ESEE analysis is required. 	<ul style="list-style-type: none"> • Statewide Planning Goal 5 requires the county to protect inventoried riparian corridors and wetlands. Staff have not identified a legal requirement to update the county's Goal 5 mapping. • Statewide Planning Goal 6 addresses water quality; however, its provisions are relatively unclear, and there are no implementing state administrative rules to provide more specific direction. • Some loss of water quality protection may result if new Goal 6 regulatory maps are not adopted. • Oregon Department of State Lands (DSL) maintains a Statewide Wetlands Inventory, and wetlands may be subject to the state's removal/fill law and joint state and federal permitting even if they are not mapped. This permitting process offers opportunities to identify and protect these water resources, or provide for compensatory mitigation, during development. • Surface water management districts (Clean Water Services, Oak Lodge Water Services, Clackamas County Service District No. 1) implement water quality regulations. In CCSD #1, the district's regulations already apply in lieu of the ZDO requirements. • The county is preempted from regulating farm or forest practices. As a result, new water quality mapping/regulations in rural areas would be limited in their practical effect. • ODF has new stream mapping that has been created with updated technology and reflects stream migration and the removal of fish barriers since the earlier maps adopted by the county. This data could be used for two purposes: updating the fish-bearing stream inventory used to implement Goal 5 and regulating other streams for water quality purposes under Goal 6. • Changing the Goal 5 inventory would require relatively extensive analysis that is beyond the scope of the current project. Adopting maps to implement water quality regulations under Goal 6 does not require the same level of analysis, so the primary driver of staff time would be the public outreach needed to explain the new mapping and regulations. 	<p>Some Planning Commissioners were concerned about the potential of losing some water quality benefits by limiting stream and wetland regulations to currently adopted maps.</p>

Policy Question	Primary Policy Issue	Minimum Required	Alternative Approaches	Key Considerations	Planning Commission Feedback
<p>B.</p> <p>Should the county update the regulatory maps of mass movement hazards?</p>	<p>The county's adopted landslide hazard inventory is based on data from the 1970s. Updated mapping developed by the Oregon Department of Geology and Mineral Industries (DOGAMI) using modern technology is available. Adopting updated mapping will result in some properties being removed from the adopted maps but will result in many more properties being added.</p>	<p>Continue to use the adopted landslide hazard maps from the 1970s with the potential addition of rapidly moving landslide hazards mapped by DOGAMI in 2002 (research on this potential requirement is ongoing).</p>	<p>Replace the existing landslide hazard maps with new mapping available from DOGAMI.</p>	<ul style="list-style-type: none"> Statewide Planning Goal 7 requires the county to have implementing regulations to reduce the risk to people and property from landslides. The county's adopted maps cover only the northwest quadrant of the County. Current DOGAMI mapping is available for the entire county. By changing to the more accurate maps, approximately 3,750 additional tax lots will be impacted by the regulations, and approximately 1,100 tax lots will no longer be regulated. Development in a mapped landslide hazard area may still be feasible, but it would need to be done in accordance with clear and objective ZDO standards, most likely requiring a geotechnical study and compliance with the recommendations established by that site-specific technical evaluation. 	<p>The Planning Commission discussed the risk to life and property and expressed strong support for the adoption of the most up-to-date mapping to provide the greatest protection.</p>
<p>C.</p> <p>Should the county adopt regulatory maps of wildfire hazard areas?</p>	<p>The ZDO's general regulations for "fire hazard areas" are not clear and objective and are not based on any adopted map.</p>	<p>Repeal the general regulations for unmapped "fire hazard areas" and rely on other ZDO standards. Nonregulatory measures, such as public information and education, could also be employed.</p>	<ul style="list-style-type: none"> Apply clear and objective wildfire risk reduction regulations to all properties countywide or to specific subsets of properties, possibly based on zoning. Examples of such regulations are fire hardening for structures (implemented through the building code rather than the zoning code) and defensible space. Establish new mapping and apply wildfire risk reduction regulations to areas identified as being at high risk based on factors that would need to be determined (e.g., available water supply, proximity to a fire station, proximity to wildland areas). This is beyond the scope of the current project but could be placed in a "parking lot" for a subsequent project. 	<ul style="list-style-type: none"> Statewide Planning Goal 7 requires the county to have implementing regulations to reduce the risk to people and property from wildfires. The Oregon Wildfire Risk maps produced by the state were repealed last year after generating significant public objections. Aside from the general regulations for unmapped "fire hazard areas," the ZDO includes defensible space requirements for dwellings and many other types of structures in forest zones, as well as provisions related to firefighting water supply. Fire district regulations allow for consideration of firefighting water supply and site access in conjunction with building permit review. In addition, the Oregon State Fire Marshal has a program that provides guidance to reduce fire danger through creating defensible space around homes and other structures. (https://www.oregon.gov/osfm/wildfire/pages/defensiblespace.aspx) 	<p>The Planning Commission did not express significant concern about repealing the general standards for unmapped "fire hazard areas."</p>

Policy Question	Primary Policy Issue	Minimum Required	Alternative Approaches	Key Considerations	Planning Commission Feedback
<p>D.</p> <p>Should the county implement clear and objective upland tree protection regulations in the urban area?</p>	<p>The ZDO regulations for upland tree protection that apply to new development are not clear and objective.</p>	<p>Repeal the upland tree protection regulations for housing development.</p>	<ul style="list-style-type: none"> • Repeal the upland tree protection regulations for all development. • Consider the development of upland tree protection regulations, either by expanding the scope of the current project or through a subsequent project. The current DLCD grant does not include consultant time for this work. 	<ul style="list-style-type: none"> • The county's upland tree protection regulations do not appear to be mandated by state law. • The county's last attempt at adopting comprehensive tree protection regulations proved controversial; however, a new project could be tailored to apply only to new development rather than more broadly as was previously proposed. • Urban tree canopy has public benefits, including provision of wildlife habitat and reduction of the urban heat island effect. • Deciding on the desired degree of tree protection is likely to be very difficult and will require ample public outreach and engagement. A project of that magnitude is outside of the DLCD-funded scope of this project and would require additional consultant funding or diversion of existing staff resources from other work. 	<p>The Planning Commission has thus far provided no substantial feedback on this issue.</p>



TO: Clackamas County Planning Commission

FROM: Brandon Crawford, Kate Rogers, and Cathy Corliss, MIG

RE: **Revised Draft Code Audit Summary for ZDO 290 (Task 2.2)**
ZDO 290 – Clear and Objective Code Amendments
Creating clarity for housing development standards related to rivers, streams, habitat, and other natural resources

DATE: October 31, 2025

A. Introduction

The purpose of the Clackamas County Clear and Objective Code Amendment project is to amend the Zoning and Development Ordinance (ZDO) to provide clear and objective standards for housing development, consistent with state statute. The project focuses on those standards that implement four Statewide Planning Goals related to natural resources and hazards, and associated Administrative Rules (OAR Chapter 660):

- Goal 5 (Natural Resources, Scenic Areas, and Open Spaces)
- Goal 6 (Water Quality)
- Goal 7 (Natural Hazards)
- Goal 15 (Willamette Greenway)

The first step of the project is a code audit to identify areas of potential concern. This draft Code Audit Report summarizes the results of the audit and identifies key areas of the ZDO where amendments may be needed to comply with the state requirements for clear and objective housing regulations. This report also provides some background information about state requirements, legislation, and the County’s regulations that protect natural resources and hazards.

1. Clear and Objective Requirements

Oregon State statute (ORS 197A.400) requires that local governments adopt and apply only clear and objective standards, conditions, and procedures to the development of housing (with some exceptions for historic districts). Clear and objective standards use terms, definitions, and measurements that provide for **consistent interpretation of the regulation**. In other words, there is no need for the applicant or reviewer to use their discretion in interpreting the standard. State law also allows local governments to offer a second, **discretionary review path** that can be used by applicants as an optional alternative approach to the clear and objective standards.

ORS 197A.400 was revised in 2023 by House Bill 3197 to expand the requirement for clear and objective housing regulations. It now applies to:

- All land within an urban growth boundary (UGB) – i.e., cities and urban zones within Clackamas County, including lands within natural resource areas; and
- Certain areas outside of UGBs:

- Unincorporated communities designated in a county’s acknowledged comprehensive plan after December 5, 1994 (e.g., Boring and Beaver Creek);
- Non-resource lands (not applicable in Clackamas County); and
- Area zoned for rural residential use (e.g., Rural Area Residential 2-Acre [RA-2] zone).

As a result, Clackamas County, like other counties that regulate development outside of cities and urban growth boundaries, needs to update its regulations to create a clear and objective review path for housing in areas subject to the requirements. This includes the County’s regulations related to natural resources and hazards.

2. Natural Resource and Hazard Protections

The project will focus primarily on the following ZDO sections that implement Statewide Planning Goals (and Metro Urban Growth Management Functional Plan (UGMFP) requirements) for natural resource and hazard protection. These regulations are explained further in the **Detailed Audit Findings** section.

ZDO Section	Applicable Goal(s)	Applicable Resources	Where it Applies
704 River and Streams Conservation Area	Goals 5 and 6	Habitat and water quality in riparian areas (areas adjacent to rivers and streams).	Outside Metro UGB and Metropolitan Service District (MSD).
705 Willamette River Greenway	Goal 15 (and Goal 5 outside Metro UGB/MSD)	Natural, scenic, recreational, and other qualities of Willamette River.	Adjacent to Willamette River, both inside and outside the Metro UGB and MSD.
706 Habitat Conservation Area District	Goal 5 (and Metro UGMFP Title 13)	Riparian, wetland, and upland wildlife habitat.	Inside the Metro UGB and MSD.
709 Water Quality Resource Area District	Goal 6 (and Metro UGMFP Title 3)	Water quality in wetlands and riparian areas.	Inside the Metro UGB and MSD, but outside the boundaries of Clackamas County Service District #1.
1002 Protection of Natural Features	Goals 5, 6, and 7	<ul style="list-style-type: none"> • Hillsides • Trees and Wooded Areas • River and Stream Corridors • Deer and Elk Winter Range • Mt. Hood Resource Protection Open Space • Significant Natural Areas • Significant Landforms and Vegetation 	Generally applies throughout the County; however, location varies by code section and resource.

ZDO Section	Applicable Goal(s)	Applicable Resources	Where it Applies
1003 Hazards to Safety	Goal 7	<ul style="list-style-type: none"> • Mass Movement Hazard Areas • Flood Hazard Areas • Soil Hazard Areas • Fire Hazard Areas 	Hazard areas throughout the County, some of which are mapped/inventoried.
1006 Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control	Goal 6	Water quality in rivers and streams via surface water / stormwater management and erosion control.	Throughout the County. However, Clackamas County has jurisdiction over surface water management and erosion control outside of cities or other service districts.
1011 Open Space And Parks and 1103 Open Space Review	Goals 5, 6, and 7	Various resources within areas designated as Open Space.	Inside the Metro UGB and within Mount Hood Villages (Mt. Hood Community Plan).

3. Approach to Amendments

While the sections listed above are the focus of this project, other code sections will also be updated as needed to ensure consistency throughout the ZDO. Further, Comprehensive Plan amendments may also be needed for consistency with ZDO updates.

The intent of these amendments is to keep the current level of protection for applicable resources and to use the inventories and the Economic, Social, Environmental, and Energy (ESEE) analyses conducted during the last periodic review. An ESEE analysis is a required step¹ in local protection of natural resources under Goal 5, and evaluates the potential economic, social, environmental, and energy impacts of regulating each identified resource in order to balance its protection with other public needs. This project aims to stay within the policy guidance provided by the County’s adopted ESEE analyses.

4. Planning Commission Input

The project team will seek input from the Planning Commission on the key discussion items identified in Section B at work sessions in November and December 2025. Those meetings will focus on identifying where the problems are in the code and introducing high level concepts for addressing the issues. Following that, the team will develop initial draft code amendments to address the identified issues. The Planning Commission will have further opportunities to review the draft solutions and provide direction to the team at subsequent work sessions in Spring 2026.

¹ However, an ESEE is not required when a local government follows a “safe harbor” option for their local protection program, as provided for certain resources in OAR 660-023.

B. Code Audit Summary: Key Findings and Discussion Items

The project team conducted a detailed review of the ZDO to identify conflicts with clear and objective requirements. Below is a summary of high-level issues that affect multiple ZDO sections, key discussion items, and topics for which we are seeking policy direction from the Planning Commission. Following that (Section C) is a more detailed summary of audit findings for each ZDO section and initial suggestions for potential solutions.

1. Creating Clear and Objective (“C&O”) Standards

Throughout the code sections listed above, there are provisions that introduce some level of discretion into the County’s review of applications. Following is a sampling of the types of issues identified and potential solutions for establishing a C&O review path. In the examples, the problematic language is highlighted in yellow.

Issue	Example	Explanation and Potential Solution
Unclear or undefined terms	<i>704.02(D) Mean High Water Line: The bank of any river or stream established by the annual fluctuations of water generally indicated by physical characteristics such as a line on the bank, changes in soil conditions, or vegetation line.</i>	The definition of Mean High Water Line is essential to application of the RSCA (and other) regulations. However, the current definition is somewhat subjective. Potential Solution: Defer to the OAR or the FEMA model ordinance definition of ordinary high water line, and/or to establish a C&O method for determining the measurement based on field assessment by a qualified biologist, following more detailed OAR procedures.
Varying from a standard	<i>706.02(B) An applicant may dispute the location of an HCA by submitting an application for HCA Map Verification.</i>	The code can offer both a C&O and discretionary track to the applicant. If an applicant wishes to vary from the adopted HCA map that would be a discretionary request. That is allowed under ORS 197A.400, but it should be clarified in the code. Potential Solution: State that varying from the map is only available through discretionary review.
Subjective language	<i>1002.03(A) Existing wooded areas, significant clumps or groves of trees and vegetation, consisting of conifers, oaks and large deciduous trees, shall be incorporated in the development plan wherever feasible.</i>	“Significant clumps” is a term that should be defined or replaced with a more specific standard. “Whenever feasible” is also subjective. Potential Solution: Replace this with a tree retention standard, which could specify the size of applicable trees, minimum canopy coverage, and/or number of trees per area

that must be preserved. Applicants could vary from the standard through the discretionary path.

Other types of solutions to C&O issues include:

- Providing C&O standards only for housing development, or only in areas subject to the C&O requirements (urban areas, rural residential areas, and unincorporated communities), while retaining existing regulations for all other development. The alternative would be to provide the same C&O standards for all uses and/or all areas outside the UGB (even where not required by statute).
- Deferring to service provider letters, such as from a surface water management authority, indicating that a development meets its standards. Whether a letter is submitted is a C&O “yes/no” answer.
- Deferring to C&O standards in other sections of the ZDO (e.g., “protection from flood hazard” criteria can instead defer to ZDO 703 Floodplain Management District).
- Deferring to state standards in rules and statutes, where available.

2. Consolidating ZDO Sections

The ZDO contains multiple layers of regulations, some of which overlap or conflict. There is interest in potentially consolidating some of the regulations so they are easier to understand and implement, which could help streamline review by staff and simplify the process for applicants. Some conceptual approaches include:

- a. **Consolidating water resources regulations into one section.** There are several ZDO chapters that regulate rivers, streams, adjacent riparian areas, wetlands and similar water resources:
 - **Section 704** establishes setbacks (buffers) adjacent to rivers and streams located outside the Metro UGB and Metropolitan Service District. This section does not regulate wetlands unless they fall within the mean high water line of the river or stream. The standards are relatively streamlined, but are not entirely clear and objective.
 - **Section 706** applies to riparian corridors (and upland habitat areas in publicly-owned parks and open spaces) that were inventoried and mapped by Metro inside the Metro UGB and MSD. It was adopted in compliance with Metro UGMFP Title 13 (Nature in Neighborhoods) and generally follows the Metro Title 13 Model Ordinance. The regulations in this section are complex, but generally clear and objective.
 - **Section 709** establishes setbacks (buffers) adjacent to rivers, streams, wetlands, and natural lakes inside the Metro UGB and MSD, but outside the boundaries of Clackamas County Service District #1. It was adopted in compliance with Metro UGMFP Title 3. Metro’s Title 3 requirements preceded the Title 13 requirements. When Title 13 was adopted, Metro removed many of the Title 3 requirements from the UGMFP in favor of Title 13. Some jurisdictions followed suit and replaced their Title 3 regulations with Title 13 regulations.

- **Section 1002.04** establishes setbacks (buffers) to river and stream corridors outside the Metro UGB and MSD and not otherwise regulated by Section 704 or within the Willamette River Greenway.

Creating a single set of water resource regulations that applies throughout the County could improve consistency and efficiency of application review. However, the requirements necessarily differ significantly by location. Additionally, most property owners are only interested in the standards that apply to their property, so consolidation of disparate requirements could make the code more difficult for the individual property owner to understand.

Partial consolidation could provide some of the efficiency benefits, while still keeping individual sections manageable for individual property owners. For example, Sections 706 and 709, which both generally apply within the Metro UGB and MSD, could be combined. Similarly, Sections 704 and 1002.04 could be combined and updated to include clear and objective standards for development outside the Metro UGB and MSD.

- b. **Consolidating sections of ZDO 1002 Natural Features with other sections of the code.** The Natural Features section addresses a range of resources and responds to different Statewide Planning Goals. The following sections of ZDO 1002 could potentially be merged with other ZDO sections and deleted from ZDO 1002 to reduce redundancy:
 - 1002.01 Hillsides – There is some overlap with the geologic hazard regulations in ZDO 1003 (Hazards to Safety).
 - 1002.04 River and Stream Corridors – This section pre-dated the establishment of Section 704 (RSCA), but addresses similar resources. See above for suggestions for combining this with Section 704.
 - 1002.06 Mt. Hood Resource Protection Open Space – This section overlaps with ZDO 1011 Open Space and Parks.
- c. **Consolidating ZDO 1011 Open Space and Parks with other sections of the code.** The resources listed in this section have significant overlap with other goal-protected areas regulated by other ZDO sections – such as the Willamette River Greenway, hillsides, rivers and streams, and flood hazards. The County could consider removing most of ZDO 1011, leaving just those resources that are not regulated elsewhere – such as wetlands in the Mt. Hood Community Plan area. (Note, Open Space protection under Goal 5 is not mandatory under the current administrative rules (Division 23).)

3. Comprehensive Plan Provisions

The County’s policies for natural resources and hazards are found in Comprehensive Plan (“CP”) [Chapter 3: Natural Resources and Energy](#). These policies generally form the basis for the regulations in corresponding sections of the ZDO. However, there are some issues related to the coordination between the CP and the ZDO that should be considered:

- a. Some of the CP policies are very detailed, and are worded more like ZDO regulations rather than policy statements. For example, the River and Stream Corridor policy 3.A.3 specifies the maximum width of vegetated buffers, and includes specific requirements for certain uses and improvements. These regulations are enacted in ZDO 704 and could be removed from the CP.

- b. Some CP policies do not have corresponding regulations in the ZDO. For example, River and Stream Corridor policy 3.A.6 requires nonstructural methods of bank stabilization in areas with unstable soil, however there are no ZDO provisions to implement this policy.
- c. County staff have identified other issues with CP Chapter 3 that would be beyond the scope of the Clear & Objective Code Amendments project to address, including updating or removing outdated or inconsistent provisions.

C. Detailed Audit Findings

Following is a more detailed summary of the audit findings for each ZDO section and initial recommendations for potential solutions. The column labeled “Existing Text (in italics) or Code Summary” provides examples of the types of discretionary language (highlighted in yellow). The column labeled “Key Issues and Potential Solutions” identifies the types of solutions that the County could consider to address the issue. In all sections there may be various other standards that will also need revisions to be C&O.

ZDO 704 River and Stream Conservation Area (RSCA)

This section applies to areas adjacent to rivers and streams (riparian areas) outside of the Metro UGB and the Metropolitan Service District. The regulations are intended to protect water quality and stream habitat, and implement Statewide Planning Goals 5 and 6, as well as the River Design Plans and Water Resource policies in Sections 3.A through 3.C of the Comprehensive Plan.

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
704 RSCA (various sections)	<p>Examples of discretionary language:</p> <p><i>704.04 River and Stream Setbacks</i></p> <p><i>A. Structures shall be located a minimum of 100 feet from the mean high water line of a principal river. This minimum setback may be increased up to 150 feet from the mean high water line to lessen the impact of development. In determining the minimum setback, the following shall be considered:</i></p> <ol style="list-style-type: none"> <i>1. The size and design of any proposed structures;</i> <i>2. The width of the river;</i> <i>3. The topography of the land between the site and the river;</i> <i>4. The type and stability of the soils;</i> <i>5. The type and density of existing vegetation between the site and the river;</i> <i>6. Established recreation areas or areas of public access; and</i> <i>7. Visual impact of any structures.</i> <p><i>704.06 Development Standards</i></p> <p><i>C. Subdivisions and partitions shall be designed, where possible, to allow compliance with Section 704.</i></p>	<p>Section 704.04(A) relies on a discretionary determination for when setbacks should be increased beyond the baseline 100 feet.</p> <p>Potential Solution: This could be reversed – i.e., make the C&O standard 150 feet, with the option to reduce the setback through the discretionary track based on the discretionary criteria in 1-7.</p> <p>Section 704.6(C) needs to be further elaborated to be C&O, and “where possible” should be removed from the C&O path.</p> <p>Potential Solution: Specify a mathematical standard that ensures a certain amount of buildable area outside the RSCA setback. Allow deviation from the standard through the discretionary track.</p>

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
704.03 RSCA Area of Application	Section 704 relies on the Water Protection Rule Classification (WPRC) Maps to identify streams subject to the RSCA regulations. The WPRC maps (Fish Bearing Stream Inventory) were created by the Oregon Departments of Forestry (DOF) and Fish & Wildlife (ODFW), and referenced by the County as part of the Comprehensive Plan.	The WPRC maps are only available as hard-copy maps, not in a digital format. County staff notes that DOF/ODFW created updated maps, but they have not been adopted by the County. Adopting the new maps may necessitate a new Goal 5 / ESEE process if there are substantial changes to the areas defined as significant resources.
704.05 Setback Exceptions	<p><i>A. The following uses are exempt from the minimum setback standards of Subsection 704.04:</i></p> <p><i>1. Residential lots of record where lot depth precludes compliance with the setback standards of Subsection 704.04, provided that:</i></p> <p><i>a. Structures shall be sited the maximum distance from the mean high water line which meets the setback and other standards of the underlying zoning district; and</i></p> <p><i>b. The footprint of structures shall not exceed 25 percent of the lot area;</i></p>	<p>The requirement to site a structure “the maximum distance” from the stream is discretionary, and the question of whether lot depth precludes compliance with the setbacks depends on the size and shape of the structure.</p> <p>Potential Solution: Rephrase this section to make it clear that the C&O setbacks apply, but that the exception is available in cases where an applicant cannot meet the setback standards on an existing lot. Potentially, the code could provide additional standards to clarify when the exception applies – e.g., when the amount of buildable area outside of the setback is less than a specified size.</p>

ZDO 705 Willamette River Greenway (WRG)

The WRG applies to areas adjacent to the Willamette River in unincorporated areas of the county. The WRG regulations implement Statewide Planning Goal 15, which requires protection of the natural, scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River. The WRG also implements Goal 5 protections outside of the Metro UGB/MSD. Further, the WRG regulations implement the County’s Willamette River Design Plan and Policies in Section 3.C.6 of the Comprehensive Plan. The map for the WRG is [Map 3-01e Willamette River Greenway Design Plan](#).

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
705 WRG (generally)	<p>Examples of discretionary language:</p> <p><i>705.04 Standards for Intensification, Change of Use, or Development</i></p> <p>B. <i>Where necessary, public access has been provided by appropriate legal means to and along the river.</i></p> <p>D. <i>The request will result in the preservation of a buffer or filter strip of natural vegetation along the river bank. The depth of this vegetative buffer or filter strip need not exceed 150 feet, and shall be determined by consideration of the following:</i></p> <p>[criteria are similar to the RSCA setback criteria]</p> <p>E. <i>Structures shall observe a minimum setback between 100 and 150 feet from the mean low water level. The setback shall be determined by evaluation of the criteria stated in Subsection 705.04. Residential lots of record and water-dependent uses unable to meet this requirement shall be exempt from this setback.</i></p>	<p>The WRG regulations require all intensification, change of use, or development to obtain a WRG permit. The permit requirements and standards closely parallel the wording in Goal 15, which is very discretionary.</p> <p>Examples of Potential Solutions:</p> <ul style="list-style-type: none"> Remove regulations that are redundant to other ZDO sections (e.g., RSCA and HCA standards). Establish a set of C&O standards only for housing development, and retain the existing regulations for all other uses. C&O standards may be based on the history of housing development outcomes in the WRG (i.e., codify the types of designs the County typically approves under the current discretionary standards). Codified Greenway Setback – Establish 150 feet as the minimum setback, and allow reduction down to 100 feet via discretionary review (similar to the RSCA solution noted above). Native Landscape Buffer – Require a minimum landscape buffer with native plants selected from a previously vetted and adopted approved plant list (e.g., the Portland Plant List). Pedestrian Access Requirements – Identify properties or specific areas that are subject to pedestrian access requirements, based on the WRG Design Plan. Allow deviation from the requirements through an optional, discretionary path.

ZDO 706 Habitat Conservation Area District (HCAD)

The HCAD includes mapped wetlands, riparian corridors, and wildlife habitat inside the Metro UGB or Metropolitan Service District Boundary. These regulations implement Statewide Planning Goal 5 and Metro Title 13: Nature in Neighborhoods (which implements Goal 5 within the Metro area). The regulations also implement the Habitat Conservation Areas policies in Section 3.D the Comprehensive Plan. The mapped HCA inventory can be found on [Metro's web map](#).

With the exception of some missing definitions and non-C&O definitions, the HCAD standards are generally clear and objective. Most of the discretionary criteria in this chapter apply to alternative review and approval pathways for development (e.g., map verification). In some cases, it may be helpful to clarify which sections and criteria qualify as the discretionary review path and which sections/criteria qualify as the C&O path.

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
706.03 Definitions	Existing definitions and other terms used throughout the chapter that do not have a definition.	<p>Unclear or undefined terms in this section include the following:</p> <ul style="list-style-type: none"> ○ Bankfull stage ○ Developed flood area ○ Ordinary mean high water line ○ Diameter at breast height ○ Hazard tree ○ Restricted development area <p>Potential Solutions: These terms either need revised C&O definitions or definitions need to be added. As noted, the County could rely on the state's (OAR) definitions for certain terms like bankfull stage and ordinary high water line, or on the FEMA model ordinance. The International Society of Arboriculture (ISA) may be a source for tree-related terms.</p>
706.07 Submittal Requirements	Applications for development in an HCA are required to submit a Construction Management Plan, which includes an Erosion Prevention and Sediment Control (EPSC) plan.	There is no definition or standards for an EPSC plan. The requirements depend on who is the surface water management authority.

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
		Potential Solution: Cross-reference the erosion control requirements in ZDO 1006.06 and require an approved EPSC from the applicable approval authority.

ZDO 709 Water Quality Resource Area District (WQRAD)

The WQRAD regulations apply to mapped wetlands and riparian corridors inside the Metro UGB or Metropolitan Service District Boundary, but outside the boundaries of Clackamas County Service District No. 1. The regulations are intended to preserve water quality and implement the Statewide Planning Goal 6, Metro Goal 3, and Water Quality Resource Area policies in Section 3.E of the Comprehensive Plan. The mapped WQRA inventory can be found on [Metro's web map](#).

As discussed in Section B, the County may consider removing this section and consolidating the urban area water quality regulations with the habitat regulations in Section 706 (HCAD). That would solve this section's issues with discretionary standards. Alternatively, the County could revise this section to make it C&O. Some potential solutions are discussed below.

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
709.02 Area of Application	<p><i>B. A wetland shall be a primary protected water resource if the wetland meets any one of the following criteria and is not a constructed wetland:</i></p> <p>[...]</p> <p><i>C. Rivers, perennial streams, intermittent streams draining more than 100 acres, natural lakes, and springs that feed streams and wetlands and have year-round flow are primary protected water resources.</i></p> <p>[...]</p> <p><i>F. The text of Section 709 shall determine the boundaries of the WQRA.</i></p>	<p>The County's WQRA mapping relies on the Metro Title 3 mapped inventory, the Oregon Statewide Wetland Inventory, as well as other urban wetlands mapped by the County. However, these existing inventories are not referenced in the code, which may create ambiguity. Also, the process for identifying a new feature during development review should be clarified.</p> <p>Potential Solution: Under Title 3, it is acceptable to regulate WQRAs by the Title 3 definitions (with maps as a reference), by field-verified Title 3 maps, or by a substantially compliant local program. Following the local program approach, a potential solution is to rely on the existing mapped inventories as the C&O track. If applicants wished to contest the map, they could</p>

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
	<p>[...]</p> <p>2. <i>In addition, there may be WQRAs not shown on the WQRA Map. If credible evidence (e.g. aerial photographs, topographic maps, expert studies) indicates that the subject property may contain a WQRA that is not identified on the WQRA map, the provisions of Section 709 shall apply.</i></p>	<p>pursue a map verification through the discretionary track (similar to how the HCAD works).</p> <p>A potential challenge with this approach is that it could limit opportunities to add resources to the mapped inventory during development review process, particularly for projects that are subject to C&O review processes. This may be less of an issue for wetlands as they are subject to the requirements of the Department of State Lands (DSL), which regulates the identification and protection of wetlands during development. For non-wetland resources, the proposed approach would leave limited opportunity to add those resources to the WQRA inventory. However, some of those resources may be covered by the HCA regulations in ZDO 706.</p>
<p>709.10 Water Quality Resource Area Development Permits</p>	<p><i>A Water Quality Resource Area (WQRA) Development Permit shall be approved if the applicant provides evidence substantiating compliance with the following criteria. [...]</i></p> <p>A. <i>No practicable alternative locations exist for the requested development that will not disturb the WQRA;</i></p> <p>B. <i>No reasonably practicable alternative design or method of development exists that would have a lesser impact on the WQRA than the one proposed. If no such reasonably practicable alternative design or method of development exists, the development shall be conditioned to: [..]</i></p>	<p>“No practicable alternative” is discretionary. The County needs a C&O review path for housing, which could allow limited housing development in the WQRA when the buildable, non-WQRA area is below a certain area threshold.</p> <p>Potential Solution: For example, the City of Milwaukie has a Type I “nondiscretionary” review that allows a maximum disturbance up to 800 square feet in the WQRA if there is less than 1,500 square feet of non-WQRA area on a property.</p>
<p>Table 709-2: Water Quality Resource Area Mitigation Requirements</p>	<p>WQRA development permits require restoration and mitigation in accordance with Table 709-2. For example:</p>	<p>The requirements for native vegetation are discretionary.</p> <p>Potential Solution: Consider using the mitigation standards from the HCA (ZDO 706), which includes</p>

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
	1. <i>Restore and mitigate according to approved mitigation plan using native vegetation that would reasonably represent the vegetative composition that would naturally occur on the site.</i>	similar requirements for native vegetation and other mitigation, but provides mostly C&O standards.

ZDO 1002 Natural Features

These regulations apply to a range of natural resources and natural hazards both inside and outside the Metro UGB – including Hillsides, Trees and Wooded Areas, River and Stream Corridors, Deer and Elk Winter Range, Mt. Hood Resource Protection Open Space, Significant Natural Areas, and Significant Landforms and Vegetation. The regulations in this section implement Statewide Planning Goals 5, 6, and 7.

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
1002.01 Hillsides (generally)	This section regulates development on slopes of 20% or greater. Development on slopes of 20-35% requires a Type I permit and development on slopes over 35% (or housing on slopes over 25%) requires a Type II permit. The requirements address both geologic hazards and preservation of the natural and scenic qualities of hillside areas.	<p>Several of the regulations in this section are discretionary – especially the Type II permit standards. However, some of these regulations would be difficult to translate into C&O standards – including phrases such as “unique characteristics of the subject property ... could be better utilized.”</p> <p>Potential Solutions: There are a few potential approaches for this section. One would be to prohibit housing development on slopes over 25%, except to allow it through a discretionary path, which would allow the County to retain its existing standards. This approach may warrant discussion with Legal Counsel.</p> <p>Another potential approach is discussed in the next row.</p>

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
1002.01(B)(2)	<p>This section requires an engineering geologic study for slopes over 35% (or over 25% for housing).</p> <p><i>B. Development on slopes greater than 35 percent—and residential development on slopes greater than 25 percent in the RR, MRR, and HR Districts—shall require review of a Type II application pursuant to Section 1307 and shall be subject to the following standards:</i></p> <p>[...]</p> <p><i>2. An engineering geologic study approved by the County shall establish that the site is stable for the proposed development, and any conditions and recommendations based on the study shall be incorporated into the plans and construction of the development.</i></p>	<p>Review of a geologic study involves discretion by the County.</p> <p>Potential Solution: Require certification from a licensed engineering geologist or geotechnical engineer as the C&O standard. The certification itself would serve as the standard (i.e., did the applicant provide a certificate from the professional, yes or no?). This approach relies on the professional judgment of a licensed engineer, with the expectation that such a professional would not risk their licensure or professional reputation by certifying a development that does not meet safety standards.</p>
1002.03 Trees and Wooded Areas	<p>This section requires groves of trees to be incorporated into development “wherever feasible,” and includes standards for avoiding “substantial disturbance” of tree groves, and other subjective requirements.</p>	<p>Potential Solution: See the Key Findings section above (Section B), which suggests a C&O tree retention standard. Also consider adopting an approved tree list.</p> <p>Alternatively, consider removing these standards if they are not being implemented or not delivering a public benefit.</p>
1002.04 River and Stream Corridors	<p>This section applies to land that is outside both the Metropolitan Service District Boundary and the Portland UGB. The standards require preservation of river and stream corridors “to the maximum extent feasible.” It also requires minimum setbacks from streams, but the setback depends on evaluation of discretionary criteria.</p>	<p>As noted in the Key Findings section above (Section B), this section has substantial overlap with the RSCA. Currently, the County applies these regulations to rivers/streams that are not “Principal River Conservation Areas” and those identified in the Statewide Wetland Inventory but not in the adopted RSCA maps.</p> <p>Also, the regulations are discretionary. County staff indicated that, in practice, this section is</p>

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
		<p>only applied to discretionary applications such as Conditional Use.</p> <p>Potential Solution: Clarify the distinction in geographic applicability between this section and the RSCA. Consider limiting the applicability to ensure housing subject to C&O standards is excluded. Alternatively, establish C&O standards for housing if necessary for compliance with applicable Total Maximum Daily Load (TMDL) requirements.</p>
1002.05 Deer and Elk Winter Range	<p>The full text of this section is provided below.</p> <p><i>Development in deer and elk winter range below 3,000 feet in elevation, as identified on Comprehensive Plan Map III-2, Scenic and Distinctive Resource Areas, shall be designed to minimize adverse wildlife impacts.</i></p>	<p>The review criterion for development within the deer and elk winter range is highly discretionary.</p> <p>Potential Solution: Consider establishing C&O standards for residential development in the deer and elk winter range – such as restrictive siting standards – with options to vary from these standards through the discretionary path.</p>
1002.06 Mount Hood Resource Protection Open Space	<p>This section addresses water quality in areas designated as “Resource Protection Open Space” in the Comprehensive Plan for various Mount Hood villages.</p>	<p>As noted in the Key Findings section above (Section B), this section overlaps with ZDO 1011 Open Space and Parks.</p> <p>Potential Solution: There may be opportunities to consolidate these sections and establish a single set of C&O criteria for water quality and wetland protection.</p>
1002.08 Significant Landforms and Vegetation	<p>The full text of this section is provided below.</p> <p><i>Institutional, commercial, and industrial development; multifamily dwellings; and developments of more than one duplex, triplex, or quadplex shall cluster and modulate building masses to minimize disturbance of existing</i></p>	<p>There is no definition for “significant landforms and vegetation,” so it is unclear what types of resources would be subject to these standards. Note, these regulations are not connected to statewide planning goal protections. Because they are so discretionary, they are difficult to</p>

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
	<p><i>significant landforms and vegetation. Pursuant to the review procedure required by Section 1102, Design Review, minimum front setbacks may be reduced or waived to minimize disturbance of natural landforms or vegetation. If a setback reduction is granted, a program for protection of those landforms and vegetation during construction, and for long-term maintenance, shall be provided.</i></p>	<p>enforce; therefore, they are not delivering a significant public benefit.</p> <p>Potential Solutions: Consider removing these regulations from the code.</p>

ZDO 1003 Hazards to Safety

These regulations apply both inside and outside the Metro UGB and implement Statewide Planning Goal 7. The regulations address flood hazards, soil and landslide hazards, and fire hazard areas.

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
<p>1003.02 Standards and Criteria for Mass Movement Hazard Area Development</p>	<p>This section applies to areas of land movement, slump or earth flow, and mud or debris flow.</p>	<p>This section requires an engineering geologic study, similar to ZDO 1002.01 Hillsides. The County could consider similar approaches for defining a C&O review path for housing as suggested in the findings for Section 1002.01, above.</p>
<p>1003.03 Standards for Flood Hazard Areas</p>	<p>This section applies regulations to development in flood hazard areas, in addition to ZDO 703 Floodplain Management District (FMD). It also refers to ZDO 1011 Open Space and Parks.</p>	<p>Because floodplains are regulated through ZDO 703, the County should consider removing this section or simply cross-referencing Sections 703 and 1011 and removing the other provisions.</p> <p>Note, updates to floodplain regulations in ZDO 703 may be addressed as a separate process in the future depending on federal and state guidance. There may be minor updates to that section to ensure internal consistency with other chapters, however the mapped inventory and regulations will remain unchanged.</p>
<p>1003.04 Standards for Soil Hazard Areas</p>	<p><i>B. The principal source of information for determining soil hazards is the State DOGAMI Bulletin 99 and accompanying maps. Approved site specific soil studies</i></p>	<p>This section should be updated to specify the exact hazard areas where these standards apply.</p>

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
	<i>shall be used to identify the extent and severity of the hazardous conditions on the site, and to update the soil hazards data base accordingly.</i>	Potential Solution: Reference the updated DOGAMI mapping, which includes a landslide inventory and landslide susceptibility maps.
1003.05 Standards for Fire Hazard Areas	This section provides standards for “development in areas with the potential for forest or brush fires.”	<p>This section could potentially be revised to provide C&O methods for determining wildfire hazard areas. The County should consider methods and information provided in the Clackamas County Wildfire Protection Plan.</p> <p>Note, Senate Bill 83 (2025) directs the State Fire Marshal to create model code for defensible space standards that local governments can use in wildfire hazard areas. The County may wish to defer updates on this section until the model code is available.</p>

ZDO 1006 Utilities, Street Lights, Water Supply, Sewage Disposal, Surface Water Management, and Erosion Control

This section addresses a range of public utilities. However, the primary intersection with Statewide Planning Goals (and this project’s scope) is with Goal 6 (Water Quality). The surface water and erosion control regulations are part of the County’s protection of water quality in rivers and streams. The County regulates surface water and erosion outside of UGBs or other service districts.

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
1006.06 Surface Water Management and Erosion Control	This section requires development to meet the standards of the “surface water management regulatory authority.” Clackamas County includes these surface water districts: Water Environment Services (WES), Clean Water Services (CWS), and the Oak Lodge Sanitary District (OLSD). Outside of those areas and outside city jurisdictions, the County is the surface water management authority.	The regulations in Section 1006.06 require approval from the surface water management authority, but this section also includes its own approval standards for surface water management. Many of those standards are discretionary.

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
	<p>Per the Clackamas County Roadway Standards, the County has adopted WES stormwater standards, with some exceptions.</p> <p>Section 1006.06(C) requires applicants to provide “a preliminary statement of feasibility from the surface water management regulatory authority,” which is needed to verify that adequate management, treatment, and conveyance can be made available to serve the development.</p>	<p>Potential Solution: The approval standards in this section may be redundant to the County Roadway Standards and the other surface water districts’ standards. If that is the case, much of this section could potentially be removed in favor of requiring a “statement of feasibility” (i.e., service provider letter), verifying the adequacy of the design.</p>

ZDO 1011 Open Space and Parks

This section applies to urban areas of the County (i.e., inside the Metro UGB) and to the various Mount Hood Villages. Specifically, the section applies to areas identified as Open Space on the Comprehensive Plan Map and on the Mt. Hood Community Plan Map.

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
1011.01 Area of Application	<p>A. Section 1011 applies to areas generally indicated as Open Space on Comprehensive Plan Map IV-6, North Urban Area Land Use Plan Map, or on the Mt. Hood Community Plan Map when one or more of the following open space resources is present:</p> <ol style="list-style-type: none"> 1. Willamette River Greenway; 2. Distinctive urban forests; 3. Hillsides of more than 20 percent slope; 4. Areas of confirmed land movement hazard; 5. Areas of severe erosion or unstable soil; 6. Areas of high visual sensitivity; 	<p>The resources listed in this section have significant overlap with other goal-protected areas regulated by other ZDO sections – such as the Willamette River Greenway, hillsides, rivers and streams, and flood hazards. Note, Open Space protection under Goal 5 is not mandatory under the current administrative rules (Division 23).</p> <p>Potential Solution: Remove or consolidate code sections that overlap with other sections of the ZDO. This would leave just those resources that are not regulated</p>

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
	<ul style="list-style-type: none"> 7. <i>Significant natural areas; and</i> 8. <i>Other distinctive or unique natural areas, or areas of serious natural hazard.</i> <p>B. <i>Section 1011 also applies to areas generally indicated as Open Space on the Mt. Hood Community Plan Map when one or more of the following open space resources is present:</i></p> <ul style="list-style-type: none"> 1. <i>Bodies of water, such as rivers, lakes, or lagoons;</i> 2. <i>Special flood hazard areas, as defined in Section 703, Floodplain Management District;</i> 3. <i>Land within 100 feet of mean low water of all major rivers and 50 feet of other perennial streams; and</i> 4. <i>Wetlands, including recharge areas.</i> 	<p>elsewhere – such as wetlands in the Mt. Hood Community Plan area.</p> <p>Also, the applicability of this section needs to be C&O. Per subsection (A), “Section 1011 applies to areas <u>generally indicated as Open Space on Comprehensive Plan Map...</u>” The code needs to clarify whether it applies to all mapped Open Space areas in these maps or not.</p>
<p>1011.01(C) and 1011.02 Development Standards and Limitations</p>	<p>The resources listed above are divided into high-priority and second-priority open space. High-priority open space must be “preserved outright,” whereas second-priority open space is regulated on a case-by-case basis using discretionary criteria.</p> <p><i>1011.01(C). Open space regulated pursuant to Subsection 1011.01(A) or (B) shall be categorized as follows:</i></p> <ul style="list-style-type: none"> 1. <i>High-priority open space is:</i> <ul style="list-style-type: none"> a. <i>Land or water necessary to assure a continuous network of open space (e.g., stream corridor, forested hillside);</i> b. <i>Land over 35 percent slope;</i> c. <i>Confirmed land movement hazard areas;</i> d. <i>Areas judged to have severe erosion potential due to soil type, geologic structure, and vegetation;</i> e. <i>Bodies of water such as rivers, lakes, or lagoons;</i> 	<p>This section applies a highly discretionary review process to second-priority open spaces. It cross-references the review criteria in ZDO 1103 Open Space Review, which are also highly discretionary.</p> <p>Potential Solution: If applied to mapped Open Space areas, the code could prohibit development in both Priority 1 and 2 areas, but allow development through the discretionary track in Priority 2 areas.</p>

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
	<ul style="list-style-type: none"> f. <i>Wetlands; and</i> g. <i>Significant natural areas.</i> <p>2. Second-priority open space is:</p> <ul style="list-style-type: none"> a. <i>Land greater than 20 percent slope and less than 35 percent slope;</i> b. <i>Distinctive urban forests;</i> c. <i>Land within a special flood hazard area, as defined in Section 703, or within 25-year flood limits where special flood hazard areas have not been designated;</i> d. <i>Land used as a recharge area for wetlands; and</i> e. <i>Areas of high visual sensitivity.</i> <p>1011.02(C). <i>Second-priority open space shall be preserved to the maximum extent possible making full use, as necessary, of techniques which reduce the need for land coverage, and disturbance of open space features. Various site plan and development options shall be identified and applied on a case-by-case basis pursuant to Section 1103, Open Space Review. Site plan and development techniques may include but are not limited to:</i></p> <ul style="list-style-type: none"> 1. <i>Multistory construction;</i> 2. <i>Elevated pole structures;</i> 3. <i>Understructure parking;</i> 4. <i>Reduction of parking requirements as provided under Subsection 1015.02(D)(2)(a) and (b);</i> 5. <i>Clustering of buildings;</i> 6. <i>Minimized driveway areas, use of shared driveways and loading areas;</i> 7. <i>Reduction of road widths or use of one-way roads to accommodate terrain or other features; and</i> 	

ZDO Section	Existing Text (<i>in italics</i>) or Code Summary	Key Issues and Potential Solutions
	8. <i>Siting of buildings to maximize transit and pedestrian orientation.</i>	