

TITLE 19 ZONING

CHAPTER 19.400 OVERLAY ZONES AND SPECIAL AREAS

19.402 Natural Resources

19.402.1 Intent

Section 19.402 is to be interpreted consistently with the following:

- A. Section 19.402 provides protection for water quality resources under Statewide Land Use Planning Goal 6 and Sections 1-4 of Title 3 of the Metro Urban Growth Management Functional Plan (UGMFP). Section 19.402 also provides protection for designated natural resources that have been identified for the purposes of implementing Statewide Planning Goal 5 relating to significant natural riparian, wildlife, and wetland resources and Title 13 of the UGMFP.
- B. Many of Milwaukie's riparian, wildlife, and wetland resources have been adversely affected by development over time. These regulations seek to minimize additional adverse impacts and to restore and improve resources, where possible, while balancing property rights and development needs of the city.
- C. It is also the intent of Section 19.402 to:
 - 1. Designate water quality resources (WQRs) to protect the functions and values of riparian and wetland resources at the time of development.
 - 2. Protect and improve the functions and values that contribute to water quality and to fish and wildlife habitat in urban streamside areas. These functions and values include, but are not limited to:
 - a. Vegetated corridors to separate protected water features from development.
 - b. Microclimate and shade.
 - c. Streamflow moderation and water storage.
 - d. Water filtration, infiltration, and natural purification.
 - e. Bank stabilization and sediment and pollution control.
 - f. Large wood recruitment and retention and natural channel dynamics.
 - g. Organic material resources.
 - 3. Designate habitat conservation areas (HCAs) to implement the performance standards of Title 13 of the UGMFP for riparian areas and fish and wildlife habitat, and to protect significant local Goal 5 resources such as wetlands.
 - 4. Provide nondiscretionary (clear and objective) standards, as well as a discretionary review process, applicable to development in HCAs, in accordance with Goal 5.
 - 5. Allow and encourage habitat-friendly development while minimizing the impact on water quality and fish and wildlife habitat functions.
 - 6. Permit residential cluster development to encourage creative and flexible site design that is sensitive to the land's natural features and adapts to the natural topography.

7. Provide mitigation standards for the replacement of ecological functions and values lost through development in WQRs and HCAs. This includes restoration of designated natural resources that are temporarily disturbed during development, as well as mitigation for permanent disturbance of those areas as a result of development.
 8. Preserve existing native vegetation against removal and replacement with lawns, gardens, or other nonnative plantings.
- D. Section 19.402 allows development in situations where adverse impacts from the development can be avoided or mitigated and where the strict application of these rules would deny reasonable economic use of property.
- E. It is not the intent of Section 19.402 to:
1. Impose any obligation on property owners to restore existing developed sites to predevelopment or natural conditions when no new activity is proposed.
 2. Impose any unreasonable hardship against the continued maintenance of existing legal site conditions.
 3. Apply to activities that do not affect WQRs or HCAs.
 4. Prohibit normal lawn and yard landscape planting and maintenance that does not involve removal and replacement of existing native vegetation. Normal lawn and yard planting and maintenance does not include the planting of invasive nonnative or noxious vegetation, including, but not limited to, plants listed as nuisance species on the Milwaukie Native Plant List established in Subsection 19.402.2.G.

19.402.2 Coordination with Other Regulations

- A. Implementation of Section 19.402 is in addition to, and shall be coordinated with, Title 19 Zoning, Title 18 Flood Hazard Regulations, and Chapter 16.28 Erosion Control.
- B. For properties along the Willamette River, Section 19.402 shall not prohibit the maintenance of view windows, as allowed by Section 19.401 Willamette Greenway Zone WG.
- C. Except as provided for in Subsection 19.402.2.B, when applicable provisions of Sections 19.402 and 19.401 are in conflict, the more restrictive provision shall be controlling.
- D. Nonconforming development that was legally existing for WQRs as of January 16, 2003, the effective date of Ordinance #1912, or that was legally existing for HCAs as of DATE, the effective date of Ordinance #____, and that is nonconforming solely because of Section 19.402, shall not be subject to the provisions of Chapter 19.800 Nonconforming Uses and Development. However, any expansion of a nonconforming development within a WQR or HCA shall be subject to the applicable standards of Section 19.402.
- E. The requirements of Section 19.402 apply in addition to all applicable local, regional, State, and federal regulations, including those for wetlands and flood management areas. Where Section 19.402 imposes restrictions that are more stringent than regional, State, and federal regulations, the requirements of Section 19.402 shall govern.
- F. Development in or near wetlands and streams may require permits from the Oregon Department of State Lands (DSL) and the U.S. Army Corps of Engineers (Corps). If a federal permit is required, a water quality certification from the Oregon Department of Environmental Quality (DEQ) may also be required. The Planning Director shall notify DSL and the Corps when an application for development within streams and wetlands is

submitted. Because these agencies may have more restrictive regulations than the City, applicants are encouraged to contact them before preparing development plans.

- G. A document or other list used to identify native, nuisance, and prohibited plants shall be maintained by the Planning Director and shall be referred to as the "Milwaukie Native Plant List."
- H. A document or other list used to identify chemicals that have been demonstrated to be detrimental to water quality and habitat health shall be maintained by the Planning Director and shall be referred to as the "Milwaukie Prohibited Chemicals List."

19.402.3 Applicability

- A. The regulations in Section 19.402 apply to all properties that contain, or are within 100 ft of a WQR and/or HCA (including any locally significant Goal 5 wetlands or habitat areas identified by the City of Milwaukie) as shown on the Milwaukie Natural Resource Administrative Map (hereafter "NR Administrative Map").
- B. For properties that do not contain, but are within 100 ft of, a WQR and/or HCA, as shown on the NR Administrative Map, and where an activity not listed as exempt in Subsection 19.402.4.A will disturb more than 150 sq ft, a construction management plan is required in accordance with Subsection 19.402.9 (see also Table 19.402.3).
- C. The NR Administrative Map, which shows WQRs and HCAs, is adopted by reference. The NR Administrative Map shall be used to determine the applicability of Section 19.402 and shall be administered in accordance with Subsection 19.402.15.
- D. Designated natural resources are shown on the NR Administrative Map as follows:
 - 1. Water quality resources (WQRs) include protected water features and their associated vegetated corridors, as specified in Table 19.402.15. The vegetated corridor is a buffer around each protected water feature, established to prevent damage to the water feature. The width of the vegetated corridor varies depending on the type of protected water feature, upstream drainage area served, and slope adjacent to the protected water feature. The NR Administrative Map is a general indicator of the location of vegetated corridors; the specific location of vegetated corridors shall be determined in the field in accordance with Table 19.402.15.
 - 2. Habitat conservation areas (HCAs) include significant Goal 5 wetlands, riparian areas, and fish and wildlife habitat. HCAs are designated based on a combination of inventory of vegetative cover and analysis of habitat value and urban development value. HCA locations on the NR Administrative Map are assumed to be correct unless demonstrated otherwise; verifications and corrections shall be processed in accordance with the procedures established in Subsection 19.402.15.
- E. To determine whether a proposed activity on a given property will trigger any requirements of Section 19.402, the City shall use the latest available aerial photographs; a copy of the applicable section of the NR Administrative Map; and, in the case of WQRs, the parameters established in Table 19.402.15. If a property owner or applicant believes that the NR Administrative Map is inaccurate, they may propose corrections according to the standards established in Subsection 19.402.15.
- F. In the context of designated natural resources, "disturbance" is a condition or result of an act that "disturbs" as defined in Section 19.201. Disturbance can be either temporary or permanent as noted below.

Proposed Code Amendment

1. Temporary disturbances are those that occur during an allowed or approved development or activity but will not persist beyond completion of the project. Temporary disturbances include, but are not limited to, accessways for construction equipment; material staging and stockpile areas; and excavation areas for building foundations, utilities, stormwater facilities, etc.
 2. Permanent disturbances are those that remain in place after an allowed or approved development or activity is completed. Permanent disturbances include, but are not limited to, buildings, driveways, walkways, and other permanent structures.
- G. If more than 150 sq ft of area will be disturbed in conjunction with a proposed activity listed as exempt in Subsection 19.402.4.B, a construction management plan shall be submitted according to the provisions of Subsection 19.402.9. This requirement applies even when the proposed activity will not occur within a designated natural resource but is within at least 100 ft of the resource, in accordance with Table 19.402.3.
- H. Proposed activities that are listed as exempt or occur more than 100 ft from a WQR or HCA, as shown on the NR Administrative Map or determined in accordance with Table 19.402.15, do not require review under the provisions of Section 19.402.
- I. Those portions of streams, creeks, and other protected water features that appear on the NR Administrative Map but are enclosed in pipes, culverts, or similar structures are not subject to the provisions of Section 19.402, except where a proposed activity will expose or directly disturb the protected water feature, such as with excavation.
- J. The requirements of Section 19.402 apply, as shown in Table 19.402.3, both to properties that include a WQR and/or HCA, and to properties that do not include a WQR or HCA but where an activity is proposed within 100 ft of a WQR or HCA.

Table 19.402.3 Applicability of Requirements of Section 19.402		
Situations/Activities that may Trigger Section 19.402	Prepare Construction Management Plan per Subsection 19.402.9	Comply with Remainder of Section 19.402
Activities listed as exempt per: <ul style="list-style-type: none"> • Subsection 19.402.4.A (outright exemptions for both WQRs and HCAs) • Subsection 19.402.4.B (limited exemptions for HCAs only) 	No No (unless > 150 sq ft of disturbance is proposed)	No No
Nonexempt activities: <ul style="list-style-type: none"> • Outside of WQR and HCA • Within WQR or HCA 	No (unless activity is within 100' of WQR or HCA and > 150 sq ft of disturbance is proposed) Yes	No Yes

- K. Activities that are not exempt per Subsection 19.402.4, or prohibited per Subsection 19.402.5, are subject to the Type I, II, or III review process as outlined in Table 19.402.3.K.

Table 19.402.3.K Types of Process Review for Various Activities			
Activity (and applicable code sections)	Type of Review Process		
	Type I (19.1004)	Type II (19.1005)	Type III (19.1006)
Construction management plans (Subsection 19.402.9)	✓		
Agency-approved natural resource management plans (Subsections 19.402.10.A and C)	✓		
Independent natural resource management plans (Subsections 19.402.10.B and C)		✓	
Limited tree removal (Subsection 19.402.6.B)	✓		
Tree removal that is not exempt or allowable with Type I review (Subsection 19.402.8.A.8)			✓
Activities within HCA that meet nondiscretionary standards (Subsection 19.402.11.D)	✓		
Maintenance of existing utility facilities (Subsection 19.402.6.E)	✓		
Utility connections (Subsection 19.402.6.F)	✓		
Nonemergency abatement of nuisances or violations (Subsection 19.402.6.G)	✓		
Special use activities (Subsections 19.402.7.A and 19.402.11.E)		✓	
Limited disturbance to WQRs (Subsection 19.402.7.D)		✓	
Property line adjustments that balance the HCA distribution (Subsection 19.402.13.E.1 or 2)	✓		
Property line adjustments that otherwise limit HCA disparity (Subsection 19.402.13.E.3)		✓	
Low-impact partitions or replats (put designated natural resources in separate tract) (Subsection 19.402.13.G)		✓	
Other partitions, replats, subdivisions. Development activities that are not exempt or allowable with Type I or II review (Subsections 19.402.8, 19.402.12, and 19.402.13.F, H or I)			✓
Boundary verifications with minor corrections (Subsection 19.402.15.A.1)	✓		

Proposed Code Amendment

Boundary verifications with substantial corrections (Subsection 19.402.15.A.2)		✓	
---	--	---	--

19.402.4 Exempt Activities

A. Outright Exemptions

The following activities in WQRs or HCAs are exempt from the provisions of Section 19.402:

1. Action taken on a building permit for any portion of a phased development project for which the applicant has previously met the applicable requirements of Section 19.402, including the provision of a construction management plan per Subsection 19.402.9. This exemption applies so long as the building site for new construction was identified on the original application, no new portion of the WQR and/or HCA will be disturbed, and no related land use approvals have expired per Subsection 19.1001.7. This exemption also extends to projects initiated prior to DATE, the effective date of Ordinance # ____, which have already been approved through Water Quality Resource Review.
2. Stream, wetland, riparian, and upland enhancement or restoration projects and development in compliance with a natural resource management plan or mitigation plan approved by the City or by a State or federal agency.
3. Emergency procedures or activities undertaken that are necessary to remove or abate hazards to person or property, provided that the time frame for such remedial or preventative action is too short to allow for compliance with the requirements of Section 19.402. After the emergency, the person or agency undertaking the action shall repair any impacts to the designated natural resource resulting from the emergency action; e.g., remove any temporary flood protection such as sandbags, restore hydrologic connections, or replant disturbed areas with native vegetation.
4. The planting or propagation of plants categorized as native species on the Milwaukie Native Plant List.
5. Removal of plants categorized as nuisance species on the Milwaukie Native Plant List. After removal, all open soil areas shall be replanted and/or protected from erosion.
6. Removal of trees under any of the following circumstances:
 - a. The tree is a “downed tree” as defined in Section 19.201, the tree has been downed by natural causes, and no more than 150 sq ft of earth disturbance will occur in the process of removing the tree.
 - b. The tree is categorized as a nuisance species on the Milwaukie Native Plant List, no more than 3 such trees will be removed from 1 property during any 12-month period, and no more than 150 sq ft of earth disturbance will occur in the process of removing the tree(s).
 - c. The tree presents an emergency situation with immediate danger to persons or property, as described in Subsection 19.402.4.A.3. Emergency situations may include, but are not limited to, situations in which a tree or portion of a tree has been compromised and has damaged, or is damaging, structures or utilities on private or public property, or where a tree or portion of a tree is prohibiting safe passage in the public right-of-way. Examples are trees that have fallen into or against a house or other occupied building, or trees downed across power lines or

roadways. This exemption is limited to removal of the tree or portion of the tree as necessary to eliminate the hazard. Any damage or impacts to the designated natural resource shall be repaired after the emergency has been resolved.

- d. Removal of the tree is in accordance with an approved natural resource management plan per Subsection 19.402.10.
 - e. Major pruning of trees and shrubs within 10 ft of existing structures.
7. Landscaping and maintenance of existing landscaping and gardens. This exemption extends to the installation of new irrigation and drainage facilities and/or erosion control features, as well as to landscaping activities that do not involve the removal of native plants or plants required as mitigation, the planting of any vegetation identified as a nuisance species on the Milwaukie Native Plant List, or anything that produces an increase in impervious area or other changes that could result in increased direct stormwater discharges to the WQR.
 8. Additional disturbance for outdoor uses, such as gardens and play areas, where the new disturbance area does not exceed 150 sq ft; does not involve the removal of any trees of larger than 6-in diameter; and is located at least 30 ft from the top of bank of a stream or drainage and at least 50 ft from the edge of a wetland.
 9. Routine repair and maintenance, alteration, demolition, and/or change of use of existing legal structures, provided that the following criteria are met:
 - a. There is no change in the location, or increase in the footprint, of any building, impervious surface, or outdoor storage area within a WQR or HCA.
 - b. No variances to site-related development standards are required.
 - c. No other site changes are proposed that could result in increased direct stormwater discharges to a WQR. If the project will result in increased direct stormwater discharges, the proposal is subject to the Type II review process and the standards for discretionary review established in Subsection 19.402.12.
 10. Routine repair and maintenance, alteration, and/or total replacement of existing utility facilities, accesses, streets, driveways, trails, walkways, and parking improvements (including asphalt overlays); provided that there is no new disturbance of the WQR or HCA, no increase in impervious area, no reduction in landscaped areas or tree cover, and no other change that could result in increased direct stormwater discharges to the WQR.
 11. Routine repair and maintenance of public and private stormwater facilities in accordance with a stormwater management plan approved by the City.
 12. Existing agricultural practices or uses, excluding buildings and structures, provided that such activities or uses do not result in increased direct stormwater discharges to WQRs.
 13. Removal of debris, as defined in Section 19.201.
 14. Change of ownership.
 15. Lot consolidations, as defined in Section 17.08.150.
 16. Activities and improvements in existing public rights-of-way.
 17. Establishment and maintenance of trails in accordance with the following standards:
 - a. Trails shall be confined to a single ownership or within a public trail easement.

- b. Trails shall be no wider than 30 in. Where trails include stairs, stair width shall not exceed 50 in and trail grade shall not exceed 20%, except for the portion of the trail containing stairs.
- c. Trails shall be unpaved and constructed with nonhazardous, pervious materials.
- d. Trails shall be located at least 15 ft from the top of bank of all water bodies.
- e. Plants adjacent to trails may be trimmed, but trimming clearances shall not exceed a height of 8 ft and a width of 6 ft.
- f. Native trees of larger than 6-in diameter, and native shrubs or conifers larger than 5 ft tall, shall not be removed.

B. Limited Exemptions Within HCAs

The following activities within HCAs are exempt from the provisions of Section 19.402, except that a construction management plan is required, according to the provisions of Subsection 19.402.9, where the activity disturbs a total of more than 150 sq ft:

- 1. The alteration and/or total replacement of existing structures, provided that both of the following standards are met:
 - a. The alteration and/or replacement shall not intrude more than 500 sq ft into the HCA, beyond the area defined as the building footprint as of DATE, the effective date of Ordinance #_____.
 - b. The alteration and/or replacement shall not result in increased direct stormwater discharges to a WQR.
- 2. Minor encroachments, not to exceed 500 sq ft for residential zones or 150 sq ft in nonresidential zones, for new features such as accessory buildings, patios, walkways, or retaining walls.
- 3. Temporary and minor clearing, excavation, or other disturbances, not to exceed 150 sq ft, for the purpose of: site investigations or preparation of soil profiles; installation of underground utility facilities or other infrastructure; routine repair and maintenance and/or alteration of existing utility facilities, access, streets, driveways, and parking improvements; or similar activities, provided that such disturbed areas are restored to their original condition when the activity is complete.
- 4. Low-impact outdoor recreation facilities for public use—including, but not limited to, multiuse paths, accessways, trails, picnic areas, or interpretive and educational displays and overlooks that include benches and outdoor furniture—provided that such facilities contain no more than 500 sq ft of new impervious surface. Any trails shall have a maximum width of 5 ft and shall be constructed using nonhazardous, pervious materials.
- 5. Facilities that infiltrate stormwater on the site, including the associated piping, so long as the forest canopy and the areas within the driplines of the trees are not disturbed. Such facilities may include, but are not limited to, vegetated swales, rain gardens, vegetated filter strips, and vegetated infiltration basins. Native or nonnative vegetation may be planted in these facilities, provided that none of the plantings are identified as a nuisance species on the Milwaukie Native Plant List.

19.402.5 Prohibited Activities

Title 19 Zoning is comprised of regulations that deal with the use of land; it does not extend into the broader realm of laws that regulate personal activities unrelated to land use and

development. Given such limitations, the following activities are prohibited within WQRs and HCAs:

- A. New structures, development, or landscaping activity other than those allowed by Section 19.402.
- B. Uncontained areas of hazardous materials, as defined by DEQ.
- C. Planting any vegetation listed as a nuisance species on the Milwaukie Native Plant List.
- D. Outside storage of materials; unless such storage began before DATE, the effective date of Ordinance #____; or unless such storage is approved according to the applicable provisions of Section 19.402.
- E. Application of pesticides or herbicides with any of the active ingredients listed on the Milwaukie Prohibited Chemicals List.

19.402.6 Activities Requiring Type I Review

Within either WQRs or HCAs, the following activities and items are subject to Type I review per Section 19.1004:

A. Construction Management Plans

Construction management plans, as outlined in Subsection 19.402.9, are subject to Type I review.

B. Limited Tree Removal

1. The Planning Director may approve an application for limited tree removal or major pruning within WQRs and HCAs, subject to Section 19.402.6.B.2, under any of the following circumstances:
 - a. The tree removal is necessary to eliminate a hazardous, nonemergency situation, as determined by the Planning Director. A situation may be deemed hazardous if a tree, or portion of a tree, has undergone a recent change in health or condition in a manner that may pose a danger to people, to structures on private property, to public or private utilities, or to travel on private property or in the public right-of-way. Examples of imminent hazards may include, but are not limited to, trees that are broken, split, cracked, uprooted, or otherwise in danger of collapse. Approval shall be limited to removal of the tree, or portion of the tree, as necessary to eliminate the hazard.
 - b. The tree is dead, diseased, or dying and cannot be saved, as determined and documented in a report by a certified arborist.
 - c. The proposal would remove more than 3 trees during any 12-month period that are categorized as nuisance species on the Milwaukie Native Plant List.
 - d. The tree is a downed tree, but more than 150 sq ft of earth disturbance is necessary to remove it.
 - e. The tree is a nuisance species, but more than 150 sq ft of earth disturbance is necessary to remove it.
 - f. The tree is not categorized as either a nuisance or native species on the Milwaukie Native Plant List and is not located in a WQR categorized as Class A ("Good"), according to Table 19.402.11.C, provided that no more than 3 such trees will be removed during any 12-month period.

F. Utility Connections

Unless they are exempt per Subsection 19.402.4, connections to existing or new utility lines that involve disturbance to a WQR and/or HCA are subject to Type I review against the following criteria:

1. The activities required to establish the connection shall not disturb a protected water feature. Utility connections that will disturb a protected water feature are subject to the review procedures for special uses established in Subsection 19.402.11.E.
2. The activities required to establish the connection shall not disturb an area greater than 10 ft wide.
3. The connection can meet the general standards for special uses established in Subsection 19.402.11.E.1.

G. Nuisance Abatement

Measures to remove or abate nuisances; or any other violation of State statute, administrative agency rule, or City or County ordinance; shall be subject to Type I review of a construction management plan, to be approved by the Planning Director prior to the abatement activity. The person or agency undertaking the action shall repair any impacts to the designated natural resource resulting from the nuisance or violation (e.g., restore disturbed soils, restore hydrologic connections, replant disturbed areas with native vegetation, etc.) unless subsequent development has been approved.

H. Boundary Verification

Boundary verifications that propose minor corrections will be processed in accordance with Subsection 19.402.15.A.1 and are subject to Type I review.

19.402.7 Activities Requiring Type II Review

Within either WQRs or HCAs, the following activities and items are subject to Type II review and approval by the Planning Director per Section 19.1005, unless they are otherwise exempt or permitted as a Type I activity.

A. Special Uses

If not listed as exempt in Subsection 19.402.4, and not able to meet the nondiscretionary standards for HCAs as established in Subsection 19.402.11.D, any special use activity listed below shall be subject to Type II review if the proposal complies with the applicable standards provided in Subsection 19.402.11.E:

1. Improvement or construction of public or private utility facilities.
2. New stormwater facilities.
3. Walkways and bike paths.
4. Stormwater management plans.

If the proposed special use activity is not in compliance with the applicable standards in Subsection 19.402.11.E, it shall be subject to Type III review and the general discretionary review criteria provided in Subsection 19.402.12.

B. Natural Resource Management Plans

Natural resource management plans that do not meet the Type I review standards provided in Subsection 19.402.10.A, but that meet the standards provided in Subsection 19.402.10.B, are subject to Type II review. These are typically plans that have been

prepared independently of a qualified agency but that are in accordance with standards and guidelines related to enhancing natural resources.

C. Partitions

Partitions that meet the standards provided in Subsection 19.402.13.G are subject to Type II review.

D. Other Uses and Activities with Minimal Impacts to WQRs

The activities listed below are subject to Type II review and the general discretionary review criteria provided in Subsection 19.402.12:

1. New agricultural practices or uses, excluding buildings and structures, that result in increased direct stormwater discharges to WQRs.
2. Landscaping and maintenance of existing landscaping that would increase impervious area within a WQR by no more than 150 sq ft and/or would result in increased direct stormwater discharges to the WQR.
3. Routine repair and maintenance, alteration, and/or total replacement of existing legal buildings or structures that increases the disturbance area by no more than 150 sq ft within the WQR.
4. Routine repair and maintenance, alteration, and/or total replacement of existing utility facilities, accesses, streets, driveways, and parking improvements that disturbs no more than 150 sq ft within the WQR. Activities approved under this subsection shall be subject to the following requirements:
 - a. Restore the disturbed portion of the WQR.
 - b. Within the disturbed portion of the WQR, remove any vegetation categorized as a nuisance species on the Milwaukie Native Plant List and replace it with native vegetation from the list.

E. Boundary Verification

Boundary verifications that propose substantial corrections will be processed in accordance with Subsection 19.402.15.A.2 and are subject to Type II review.

19.402.8 Activities Requiring Type III Review

Within either WQRs or HCAs, the following activities are subject to Type III review and approval by the Planning Commission under Section 19.1006, unless they are otherwise exempt or permitted as a Type I or II activity.

- A. The activities listed below shall be subject to the general discretionary review criteria provided in Subsection 19.402.12:
1. Any activity allowed in the base zone that is not otherwise exempt or permitted as a Type I or II activity.
 2. Within HCAs, development that is not in compliance with the nondiscretionary standards provided in Subsection 19.402.11.D.
 3. New roads to provide access to protected water features, necessary ingress and egress across WQRs, or the widening of an existing road.
 4. Improvement of existing public utility facilities that cannot meet the applicable standards of Subsection 19.402.11.E.

5. New stormwater facilities that cannot meet the applicable standards of Subsection 19.402.11.E.
 6. New public or private utility facility construction that cannot meet the applicable standards of Subsection 19.402.11.E.
 7. Walkways and bike paths that are not exempt per Subsection 19.402.4 or cannot meet the applicable standards of Subsection 19.402.11.E.
 8. Tree removal in excess of that permitted under Subsections 19.402.4 or 19.402.6.
 9. Landscaping and maintenance of existing landscaping that would increase impervious area by more than 150 sq ft.
 10. Routine repair and maintenance, alteration, total replacement, and/or change of use of existing legal buildings or structures that that increases the disturbance area by more than 150 sq ft within the WQR.
 11. Routine repair and maintenance, alteration, and/or total replacement of existing utility facilities, accesses, streets, driveways, and parking improvements that would disturb more than 150 sq ft within the WQR.
- B. The activities listed below shall be subject to the review criteria for partitions and subdivisions provided in Subsections 19.402.13.H and I, respectively:
1. The partitioning of land containing a WQR or HCA that cannot meet the standards provided in Subsection 19.402.13.G.
 2. The subdividing of land containing a WQR or HCA.

19.402.9 Construction Management Plans

- A. Construction management plans are subject to Type I review per Section 19.1004.
- B. Construction management plans shall provide the following information:
1. Description of work to be done.
 2. Scaled site plan showing a demarcation of WQRs and HCAs and the location of excavation areas for building foundations, utilities, stormwater facilities, etc.
 3. Location of site access and egress that construction equipment will use.
 4. Equipment and material staging and stockpile areas.
 5. Erosion and sediment control measures.
 6. Measures to protect trees and other vegetation located within the potentially affected WQR and/or HCA. A root protection zone shall be established around each tree in the WQR or HCA that is adjacent to any approved work area. The root protection zone shall extend from the trunk to the outer edge of the tree's canopy, or as close to the outer edge of the canopy as is practicable for the approved project. The perimeter of the root protection zone shall be flagged, fenced, or otherwise marked and shall remain undisturbed. Material storage and construction access is prohibited within the perimeter. The root protection zone shall be maintained until construction is complete.

When required for a property that does not include a designated natural resource, the construction management plan shall show the protective measures that will be established on the applicant's property.

19.402.10 Natural Resource Management Plans

Natural resource management plans or restoration plans that authorize limited disturbance within the WQR or HCA may be approved with Type I or II review, subject to the following standards:

A. Plans Eligible for Type I Review

The plan has already been approved by the U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife (ODFW), DSL, Oregon Watershed Enhancement Board (OWEB), Metro, Clackamas County Soil and Water Conservation District, or other agency approved by the Planning Director.

B. Plans Eligible for Type II Review

The plan has been prepared in accordance with particular standards and guidelines promulgated by a natural resource agency, such as OWEB's Oregon Aquatic Habitat Restoration and Enhancement Guide, ODFW's Western Oregon Stream Restoration Program, DSL's Hydrogeomorphic (HGM) approach of assessment for wetland and riparian functions, or other standards approved by the Planning Director.

C. Approval Criteria

Every plan prepared for approval under Section 19.402 shall demonstrate that it encourages restoration activities that have any of the following effects:

1. Changes the trend of habitat function from one of a diminishing ability to support salmonids and other organisms to one that supports a complex, self-sustaining system.
2. Corrects or improves conditions caused by past management and/or disturbance events.
3. Maximizes beneficial habitat in the short term where watershed degradation has been extensive and natural processes will need substantial time to restore habitat.
4. Creates beneficial habitat and restores stream function and hydrology to the fullest extent practicable within developed areas where there is no reasonable expectation of returning to natural conditions.

D. Construction Management Plans

A construction management plan prepared in accordance with Subsection 19.402.9 is required with each natural resource management plan.

E. Ongoing Maintenance

Natural resource management plans shall demonstrate how ongoing maintenance is part of the associated restoration or enhancement activities.

F. Expiration of Plans

The approval of a natural resource management plan shall be valid for 5 years. Approved plans may be renewed through the Type I review process by demonstrating that the original approved plan still meets the criteria provided in Subsection 19.402.10.C. Plans that demonstrate an adaptive management component and/or that involve partnership with one of the agencies noted in Subsection 19.402.10.A may be approved as valid for up to 20 years upon request.

19.402.11 Development Standards

A. Protection of Natural Resources During Site Development

During development of any site containing a designated natural resource, the following standards shall apply:

1. Work areas shall be marked to reduce potential damage to the WQR and/or HCA.
2. Trees in WQRs or HCAs shall not be used as anchors for stabilizing construction equipment.
3. Native soils disturbed during development shall be conserved on the property.
4. An erosion and sediment control plan is required and shall be prepared in compliance with requirements set forth in the City's Public Works Standards.
5. Site preparation and construction practices shall be followed that prevent drainage of hazardous materials or erosion, pollution, or sedimentation to any WQR adjacent to the project area.
6. Stormwater flows that result from proposed development within and to natural drainage courses shall not exceed predevelopment flows.
7. Prior to construction, the WQR and/or HCA that is to remain undeveloped shall be flagged, fenced, or otherwise marked and shall remain undisturbed. Such markings shall be maintained until construction is complete.
8. The construction phase of the development shall be done in such a manner as to safeguard the resource portions of the site that have not been approved for development.
9. Where practicable, lights shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.
10. All work on the property shall conform to a construction management plan prepared according to Subsection 19.402.9.

B. General Standards for Required Mitigation

Where mitigation is required by Section 19.402 for disturbance to WQRs and/or HCAs, the following general standards shall apply:

1. Disturbance
 - a. Designated natural resources that are affected by temporary disturbances shall be restored, and those affected by permanent disturbances shall be mitigated, in accordance with the standards provided in Subsection 19.402.11.C for WQRs and Subsection 19.402.11.D.2 for HCAs, as applicable.
 - b. Landscape plantings are not considered to be disturbances, except for those plantings that are part of a non-exempt stormwater facility; e.g., raingarden or bioswale.

2. Required Plants

Unless specified elsewhere in Section 19.402, all trees, shrubs, and ground cover planted as mitigation shall be native plants, as identified on the Milwaukie Native Plant List. Applicants are encouraged to choose particular native species that are

appropriately suited for the specific conditions of the planting site; e.g., shade, soil type, moisture, topography, etc..

3. Plant Size

Replacement trees shall average at least a ½-in caliper—measured at 6 in above the ground level for field-grown trees or above the soil line for container-grown trees—unless they are oak or madrone, which may be 1-gallon size. Shrubs shall be at least 1-gallon size and 12 in high.

4. Plant Spacing

Trees shall be planted between 8 and 12 ft on center. Shrubs shall be planted between 4 and 5 ft on center or clustered in single-species groups of no more than 4 plants, with each cluster planted between 8 and 10 ft on center. When planting near existing trees, the dripline of the existing tree shall be the starting point for plant spacing measurements.

5. Plant Diversity

Shrubs shall consist of at least 2 different species. If 10 trees or more are planted, then no more than 50% of the trees shall be of the same genus.

6. Location of Mitigation Area

a. On-Site Mitigation

All mitigation vegetation shall be planted on the applicant's site within the designated natural resource that is disturbed, or in an area contiguous to the resource area; however, if the vegetation is planted outside of the resource area, the applicant shall preserve the contiguous planting area by executing a deed restriction such as a restrictive covenant.

b. Off-Site Mitigation

- (1) For disturbances allowed within WQRs, off-site mitigation shall not be used to meet the mitigation requirements of Section 19.402.
- (2) For disturbances allowed within HCAs, off-site mitigation vegetation may be planted within an area contiguous to the subject-property HCA, provided there is documentation that the applicant possesses legal authority to conduct and maintain the mitigation, such as having a sufficient ownership interest in the mitigation site. If the off-site mitigation is not within an HCA, the applicant shall document that the mitigation site will be protected after the monitoring period expires, such as through the use of a restrictive covenant.

7. Invasive Vegetation

Invasive nonnative or noxious vegetation shall be removed within the mitigation area prior to planting, including, but not limited to, species identified as nuisance plants on the Milwaukie Native Plant List.

8. Ground Cover

Bare or open soil areas remaining after the required tree and shrub plantings shall be planted or seeded to 100% surface coverage with grasses or other ground cover species identified as native on the Milwaukie Native Plant List. Revegetation shall occur during the next planting season following the site disturbance.

9. Tree and Shrub Survival

A minimum of 80% of the trees and shrubs planted shall remain alive on the third anniversary of the date that the mitigation planting is completed.

a. Required Practices

To enhance survival of the mitigation plantings, the following practices are required:

- (1) Mulch new plantings to a minimum of 3-in depth and 18-in diameter to retain moisture and discourage weed growth.
- (2) Remove or control nonnative or noxious vegetation throughout the maintenance period.

b. Recommended Practices

To enhance survival of tree replacement and vegetation plantings, the following practices are recommended:

- (1) Plant bare root trees between December 1 and February 28; plant potted plants between October 15 and April 30.
- (2) Use plant sleeves or fencing to protect trees and shrubs against wildlife browsing and the resulting damage to plants.
- (3) Water new plantings at a rate of 1 in per week between June 15 and October 15 for the first 3 years following planting.

c. Monitoring and Reporting

Monitoring of the mitigation site is the ongoing responsibility of the property owner. Plants that die shall be replaced in kind. The Planning Director may require a maintenance bond to cover the continued health and survival of all plantings. An annual report on the survival rate of all plantings shall be submitted for 3 years.

10. Light Impacts

Where practicable, lights shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.

C. Mitigation Requirements for Disturbance within WQRs

1. The requirements for mitigation vary depending on the existing condition of the WQR on the project site at the time of application. The existing condition of the WQR shall be assessed in accordance with the categories established in Table 19.402.11.C.
2. When disturbance within a WQR is approved according to the standards of Section 19.402, the disturbance shall be mitigated according to the requirements outlined in Table 19.402.11.C and the standards established in Subsection 19.402.11.B.

Table 19.402.11.C Mitigation Requirements for WQRs	
Existing Condition of WQR	Requirements
Class A ("Good") Extent and character of existing vegetation provides good conditions for water quality and wildlife habitat	
Combination of trees, shrubs, and ground cover are 80% present, with more than 50% tree canopy coverage in vegetated corridor.	<ul style="list-style-type: none"> • Submit a plan for mitigating water quality impacts related to the development, including: sediments, temperature, nutrients, or any other condition that may have caused the protected water feature to be listed on DEQ's 303(d) list. • Inventory and remove debris and noxious materials.
Class B ("Marginal") Extent and character of existing vegetation provides marginal conditions for water quality and wildlife habitat	
Combination of trees, shrubs, and ground cover are 80% present, with 25-50% canopy coverage in vegetated corridor.	<ul style="list-style-type: none"> • Restore and mitigate disturbed areas with native species from the Milwaukie Native Plant List, using a City-approved plan developed to represent the vegetative composition that would naturally occur on the site. • Inventory and remove debris and noxious materials.
Class C ("Poor") Extent and character of existing vegetation provides poor conditions for water quality and wildlife habitat	
Combination of trees, shrubs, and ground cover are less than 80% present and/or less than 25% canopy coverage in vegetated corridor.	<ul style="list-style-type: none"> • Restore and mitigate disturbed areas with native species from the Milwaukie Native Plant List, using a City-approved plan developed to represent the vegetative composition that would naturally occur on the site. • Plant and/or seed all bare areas to provide 100% surface coverage. • Inventory and remove debris and noxious materials.

D. Nondiscretionary Standards for HCAs

The following nondiscretionary standards may be applied to proposals that are subject to Type I review and located within HCAs only. These standards do not apply to activities proposed within WQRs.

1. Disturbance Area Limitations in HCAs

To avoid or minimize impacts to HCAs, activities that are not otherwise exempt from the requirements of Section 19.402, and that would disturb an HCA, are subject to the following disturbance area limitations, as applicable:

a. Detached and Attached Single-Family Residential Uses

The amount of disturbance allowed within an HCA for detached and attached single-family residential uses, including any related public facilities as required by Section 19.700 Public Facility Improvements, shall be determined by subtracting the area of the lot or parcel outside of the HCA from the maximum disturbance area calculated per Figure 19.402.11.D.1.a. Such disturbance shall be subject to the mitigation requirements described in Subsection 19.402.11.D.2.

Figure 19.402.11.D.1.a
Method for Calculating Allowable Disturbance within an HCA
for Detached and Attached Single-Family Residential Uses

X = The maximum potential disturbance area within the HCA , which is 50% of the total HCA, up to a maximum of 5,000 sq ft.

Y = The area of the lot or parcel outside the total resource area (WQR and HCA).

Z = The net amount of disturbance area allowed within the HCA ($Z = X - Y$)

If (Y) is greater than (X), development shall not be permitted within the HCA; otherwise, the applicant may disturb up to the net amount of disturbance area allowed (Z) within the HCA.

Example 1: 8,000-sq-ft lot with 3,000 sq ft of HCA and 5,000 sq ft outside of HCA/WQR

X = 1,500 sq ft (50% of HCA)

Y = 5,000 sq ft outside of HCA/WQR

Z = - 3,500 sq ft (1,500 sq ft – 5,000 sq ft)

Conclusion: Y is greater than X; therefore, development is not permitted within the HCA.

Example 2: 8,000-sq-ft lot with 6,000 sq ft of HCA and 2,000 sq ft outside of HCA/WQR

X = 3,000 sq ft (50% of HCA)

Y = 2,000 sq ft outside of HCA/WQR

Z = 1,000 sq ft (3,000 sq ft – 2,000 sq ft)

Conclusion: Y is not greater than X; therefore, the applicant may disturb up to the value of Z (1,000 sq ft) within the HCA.

b. All Other Uses

A net disturbance area of 10% of the HCA on the site is allowed by right, subject to the mitigation requirements described in Subsection 19.402.11.D.2.

c. Temporary and Permanent Disturbances

All disturbances within an HCA that occur during construction or other development activities, whether temporary or permanent disturbances, count equally for the purposes of calculating and tracking the maximum disturbance area allowed for a particular site. Disturbance resulting from any activity deemed exempt per Subsection 19.402.4 shall not be counted against the amount of disturbance allowed by Subsection 19.402.

d. Disturbance in Excess of that Allowed by Section 19.402

In accordance with Subsection 19.402.8, proposed development that would disturb more HCA than allowed by Subsections 19.402.11.D.1.a and b shall be subject to the Type III review process and general discretionary review criteria, as outlined in Subsection 19.402.12.C.1.

e. Disturbance Changes HCA Status

When disturbances within HCAs are allowed, in accordance with the applicable provisions of Section 19.402, the City shall remove the HCA designation from such disturbance areas on the NR Administrative Map, as provided in Subsection 19.402.15.B.

In the case of a request to develop within an HCA on a property where a prior development request was subject to the disturbance area limitations of Subsection 19.402.11.D.1, the calculation of the new amount of disturbance area allowed within the HCA on the property shall be based on the mapped location of the HCA at the time of the request, notwithstanding any previous calculation of allowed disturbance area.

2. Mitigation Requirements for Disturbance in HCAs

To achieve the goal of reestablishing forested canopy that meets the ecological values and functions described in Subsection 19.402.1, when development intrudes into an HCA, tree replacement and vegetation planting are required according to the following standards, unless the planting is also subject to wetlands mitigation requirements imposed by state and federal law.

These mitigation options apply to tree removal and/or site disturbance in conjunction with development activities that are otherwise permitted by Section 19.402. They do not apply to situations in which tree removal is exempt per Subsection 19.402.4 or approvable through Type I review.

An applicant shall meet the requirement of Mitigation Option 1 or 2, whichever results in more tree plantings; except that where the disturbance area is 1 acre or more, the applicant shall comply with Mitigation Option 2.

a. Mitigation Option 1

This mitigation requirement is calculated based on the number and size of trees that are removed from the site. Trees that are removed from the site shall be replaced as shown in Table 19.402.11.D.2.a. Conifers shall be replaced with conifers. Bare ground shall be planted or seeded with native grasses or herbs. Nonnative sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.

Table 19.402.11.D.2.a Tree Replacement	
Size of Tree to be Removed (inches in diameter)	Number of Trees and Shrubs to be Planted
6 to 12	2 trees and 3 shrubs
13 to 18	3 trees and 6 shrubs
19 to 24	5 trees and 12 shrubs
25 to 30	7 trees and 18 shrubs
over 30	10 trees and 30 shrubs

b. Mitigation Option 2

This mitigation requirement is calculated based on the size of the disturbance area within an HCA. Native trees and shrubs are required to be planted at a rate of 5 trees and 25 shrubs per 500 sq ft of disturbance area. This is calculated by dividing the number of square feet of disturbance area by 500, multiplying that

result times 5 trees and 25 shrubs, and rounding all fractions to the nearest whole number of trees and shrubs. For example, if there will be 330 sq ft of disturbance area, then 330 divided by 500 equals 0.66, and 0.66 times 5 equals 3.3, so 3 trees must be planted, and 0.66 times 25 equals 16.5, so 17 shrubs must be planted. Bare ground shall be planted or seeded with native grasses or herbs. Nonnative sterile wheat grass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs.

c. Adjustments to HCA Mitigation Requirements

Proposals to vary the number or size of trees and shrubs required as mitigation in Subsection 19.402.11.D.2 shall be subject to the Type II review process and the requirements of Subsection 19.402.12.C.2.

E. Standards for Special Uses

Unless they are exempt per Subsection 19.402.4, or do not meet the nondiscretionary standards for HCAs provided in 19.402.11.D, the special uses listed in Subsection 19.402.7.A are subject to Type II review if they comply with the applicable standards in Subsection 19.402.11.E. Otherwise, the special uses listed in Subsection 19.402.7.A are subject to Type III review and the general discretionary review criteria provided in Subsection 19.402.12.

1. General Standards for Special Uses

Except for stormwater management plans, all nonexempt special uses listed in Subsections 19.402.11.E.2 through 5 that do not meet the nondiscretionary standards for HCAs provided in Subsection 19.402.11.D shall comply with the specific applicable standards in Subsection 19.402.11.E, as well as with the following general standards:

- a. In addition to a construction management plan prepared according to the standards of Subsection 19.402.9; a mitigation plan shall be submitted per Subsection 19.402.11.D.2 or 19.402.12.C.2 for HCAs, as applicable, or per Subsection 19.402.11.C for WQRs. WQRs and HCAs shall be restored and maintained in accordance with the approved mitigation plan.
- b. Existing vegetation outside of approved work areas shall be protected and left in place. Work areas shall be carefully located and marked to reduce potential damage to WQRs and HCAs. Trees in WQRs or HCAs shall not be used as anchors for stabilizing construction equipment.
- c. Where existing vegetation has been removed, or the original land contours disturbed, the site shall be revegetated and the vegetation shall be established as soon as practicable. Interim erosion control measures, such as mulching, shall be used to avoid erosion on bare areas.

2. Public or Private Utility Facilities

In addition to the requirements of Subsection 19.402.11.E.1, the following disturbance area limitations apply to all new public and private utility facilities, as well as to facility upgrades that are not exempted by Subsection 19.402.4 or that do not meet the nondiscretionary standards for HCAs provided in Subsection 19.402.11.D.

- a. The disturbance area for the upgrade of existing utility facilities shall be no greater than 15 ft wide.
- b. The disturbance area for new underground utility facilities shall be no greater than 25 ft wide and disturb no more than 200 linear feet of WQR within any 1,000-

linear-foot stretch of WQR. Such a disturbance area shall be restored with the exception of necessary access points to the utility facility.

- c. Disturbance areas shall be revegetated.
- d. No fill or excavation is allowed within the ordinary high water mark of a stream, unless a permit is obtained from the Corps through the Standard Local Operating Procedures for Endangered Species (SLOPES) process.

3. New Stormwater Facilities

In addition to the requirements of Subsection 19.402.11.E.1, new stormwater facilities that are not exempted by Subsection 19.402.4, or that do not meet the nondiscretionary standards for HCAs provided in Subsection 19.402.11.D, shall not encroach more than 25 ft into the outer boundary of the WQR adjacent to a primary protected water feature.

4. Walkways and Bike Paths

In addition to the requirements of Subsection 19.402.11.E.1; walkways and bike paths that are not exempted by Subsection 19.402.4, or that do not meet the nondiscretionary standards for HCAs provided in Subsection 19.402.11.D, and that are proposed to be constructed or improved with gravel, pavement, pavers, wood, or other materials, shall comply with the following standards:

- a. Walkways and bike paths within WQRs or HCAs shall not exceed a 10-ft width.
- b. If the proposed walkway or bike path will be located within a WQR and will be paved, then, for the purposes of evaluating the proposed project, the vegetated corridor shall be widened by the width of the walkway or bike path.
- c. The walkway or bike path shall be designed to avoid WQRs and HCAs, to the greatest extent practicable, and shall be constructed so as to minimize disturbance to existing vegetation and slope stability.
- d. The walkway or bike path shall be a minimum of 10 ft from the boundary of the protected water feature.
- e. Where practicable, any lights associated with the walkway or bike path shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.

5. Stormwater Management Plans

Stormwater management plans that authorize disturbance within the WQR or HCA may be approved if in compliance with all of the following standards:

- a. Stormwater facilities will be designed to provide an environmentally beneficial hydrological impact on protected water features.
- b. Protected water features will be protected from erosion by implementing a stream protection strategy and quantity control strategies.
- c. Watershed health will be improved through the use of vegetated facilities to meet pollution reduction, flow control, and infiltration goals. These facilities will be maintained in a manner that ensures a continued benefit to watershed health.
- d. Proposed stormwater management facilities will correct or improve conditions caused by past management and/or disturbance events, if any are present.

- e. Where there is no reasonable expectation of returning to natural conditions, beneficial habitat, vegetation, and stream function and hydrology will be restored to the fullest extent practicable within developed areas.

19.402.12 General Discretionary Review

This subsection establishes a discretionary process by which the City shall analyze the impacts of development on WQRs and HCAs, including measures to prevent negative impacts and requirements for mitigation and enhancement. The Planning Director may consult with a professional with appropriate expertise to evaluate an application, or they may rely on appropriate staff expertise to properly evaluate the report's conclusions.

A. Impact Evaluation and Alternatives Analysis

An impact evaluation and alternatives analysis is required to determine compliance with the approval criteria for general discretionary review and to evaluate development alternatives for a particular property. A report presenting this evaluation and analysis shall be prepared and signed by a knowledgeable and qualified natural resource professional, such as a wildlife biologist, botanist, or hydrologist. At the Planning Director's discretion, the requirement to provide such a report may be waived for small projects that trigger discretionary review but can be evaluated without professional assistance.

The alternatives shall be evaluated on the basis of their impact on WQRs and HCAs, the ecological functions provided by the resource on the property, and off-site impacts within the subwatershed (6th Field Hydrologic Unit Code) where the property is located. The evaluation and analysis shall include the following:

1. Identification of the ecological functions of riparian habitat found on the property, as described in Subsection 19.402.1.C.2.
2. An inventory of vegetation, sufficient to categorize the existing condition of the WQR per Table 19.402.11.C, including the percentage of ground and canopy coverage materials within the WQR.
3. An assessment of the water quality impacts related to the development, including sediments, temperature and nutrients, sediment control, and temperature control, or any other condition with the potential to cause the protected water feature to be listed on DEQ's 303(d) list.
4. An alternatives analysis, providing an explanation of the rationale behind choosing the alternative selected, listing measures that will be taken to avoid and/or minimize adverse impacts to designated natural resources, and demonstrating that:
 - a. No practicable alternatives to the requested development exist that will not disturb the WQR or HCA.
 - b. Development in the WQR and/or HCA has been limited to the area necessary to allow for the proposed use.
 - c. If disturbed, the WQR can be restored to an equal or better condition in accordance with Table 19.402.11.C; and the HCA can be restored consistent with the mitigation requirements of Subsection 19.402.11.D.2.
 - d. Road crossings will be minimized as much as possible.
5. Evidence that the applicant has done the following, for applications proposing routine repair and maintenance, alteration, and/or total replacement of existing structures located within the WQR:

Proposed Code Amendment

- a. Demonstrated that no practicable alternative design or method of development exists that would have a lesser impact on the WQR than the one proposed. If no such practicable alternative design or method of development exists, the project shall be conditioned to limit its disturbance and impact on the WQR to the minimum extent necessary to achieve the proposed repair/maintenance, alteration, and/or replacement.
 - b. Provided mitigation to ensure that impacts to the functions and values of the WQR will be mitigated or restored to the extent practicable.
6. A mitigation plan for the designated natural resource that contains the following information:
- a. A description of adverse impacts that will be caused as a result of development.
 - b. An explanation of measures that will be taken to avoid, minimize, and/or mitigate adverse impacts to the designated natural resource; in accordance with, but not limited to, Table 19.402.11.C for WQRs and Subsection 19.402.11.D.2 for HCAs.
 - c. Sufficient description to demonstrate how the following standards will be achieved:
 - (1) Where existing vegetation has been removed, the site shall be revegetated as soon as practicable.
 - (2) Where practicable, lights shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.
 - (3) Areas of standing trees, shrubs, and natural vegetation will remain connected or contiguous; particularly along natural drainage courses, except where mitigation is approved; so as to provide a transition between the proposed development and the designated natural resource and to provide opportunity for food, water, and cover for animals located within the WQR.
 - d. A map showing where the specific mitigation activities will occur. Off-site mitigation related to WQRs shall not be used to meet the mitigation requirements of Section 19.402.
 - e. An implementation schedule; including a timeline for construction, mitigation, mitigation maintenance, monitoring, and reporting; as well as a contingency plan. All in-stream work in fish-bearing streams shall be done in accordance with the allowable windows for in-water work as designated by ODFW.

B. Approval Criteria

1. Unless specified elsewhere in Section 19.402, applications subject to the discretionary review process shall demonstrate how the proposed activity complies with the following criteria:
 - a. Avoid

The proposed activity avoids the intrusion of development into the WQR and/or HCA to the extent practicable. The proposed activity shall have less detrimental impact to the designated natural resource than other practicable alternatives, including significantly different practicable alternatives that propose less development within the resource area.
 - b. Minimize

If the applicant demonstrates that there is no practicable alternative that will avoid disturbance of the designated natural resource, then the proposed activity within the resource area shall minimize detrimental impacts to the extent practicable.

- (1) The proposed activity shall minimize detrimental impacts to ecological functions and loss of habitat, consistent with uses allowed by right under the base zone, to the extent practicable.
- (2) To the extent practicable within the designated natural resource, the proposed activity shall be designed, located, and constructed to:
 - (a) Minimize grading, removal of native vegetation, and disturbance and removal of native soils; by using the approaches described in Subsection 19.402.11.A, reducing building footprints, and using minimal excavation foundation systems (e.g., pier, post, or piling foundation).
 - (b) Minimize adverse hydrological impacts on water resources.
 - (c) Minimize impacts on wildlife corridors and fish passage.
 - (d) Allow for use of other techniques to further minimize the impacts of development in the resource area; such as using native plants throughout the site (not just in the resource area), locating other required landscaping adjacent to the resource area, reducing light spill-off into the resource area from development, preserving and maintaining existing trees and tree canopy coverage, and/or planting trees where appropriate to maximize future tree canopy coverage.

c. Mitigate

If the applicant demonstrates that there is no practicable alternative that will avoid disturbance of the designated natural resource, then the proposed activity shall mitigate for adverse impacts to the resource area. All proposed mitigation plans shall meet the following standards:

- (1) The mitigation plan shall demonstrate that it compensates for detrimental impacts to the ecological functions of resource areas, after taking into consideration the applicant's efforts to minimize such detrimental impacts.
- (2) Mitigation shall occur on the site of the disturbance, to the extent practicable. Off-site mitigation for disturbance of WQRs shall not be approved. Off-site mitigation for disturbance of HCAs shall be approved if the applicant has demonstrated that it is not practicable to complete the mitigation on-site and if the applicant has documented that they can carry out and ensure the success of the off-site mitigation as outlined in Subsection 19.402.11.B.5.

In addition, if the off-site mitigation area is not within the same subwatershed (6th Field Hydrologic Unit Code) as the related disturbed HCA, the applicant shall demonstrate that it is not practicable to complete the mitigation within the same subwatershed and that, considering the purpose of the mitigation, the mitigation will provide more ecological functional value if implemented outside of the subwatershed.

- (3) All revegetation plantings shall use native plants listed on the Milwaukie Native Plant List.
- (4) All in-stream work in fish-bearing streams shall be done in accordance with the allowable windows for in-water work as designated by ODFW.

- (5) A mitigation maintenance plan shall be included and shall be sufficient to ensure the success of the planting. Compliance with the plan shall be a condition of development approval.

2. Municipal Water Utility Facilities Standards

In addition to all other applicable criteria of Subsection 19.402.12.B, and if not already exempted by Subsection 19.402.4; municipal potable water, stormwater, and wastewater utility facilities (which may include, but are not limited to, water treatment plants, wastewater treatment plants, raw water intakes, pump stations, transmission mains, conduits or service lines, terminal storage reservoirs, and outfall devices) may be built, expanded, repaired, maintained, reconfigured, rehabilitated, replaced, or upsized in accordance with the following criteria:

- a. Such projects shall not be required to avoid the resource area per Subsection 19.402.12.B.1.a, provided that, where practicable, the project does not encroach closer to a protected water feature than existing operations and development; or, for new projects where there are no existing operations or development, provided that the project does not encroach closer to a protected water feature than practicable.
- b. Best management practices will be employed that accomplish all of the following:
 - (1) Account for watershed assessment information in project design.
 - (2) Minimize the trench area and tree removal within the resource area.
 - (3) Utilize and maintain erosion controls until other site stabilization measures are established, post-construction.
 - (4) Replant immediately after backfilling, or as soon as effective.
 - (5) Preserve wetland soils and retain soil profiles.
 - (6) Minimize compactions and the duration of the work within the resource area.
 - (7) Complete in-water construction during appropriate seasons, or as approved within requisite federal or State permits.
 - (8) Monitor water quality during the construction phases, if applicable.
 - (9) Implement a full inspection and monitoring program during and after project completion, if applicable.

C. Limitations and Mitigation for Disturbance of HCAs

1. Discretionary Review to Approve Additional Disturbance within an HCA

An applicant seeking discretionary approval to disturb more of an HCA than is allowed by Subsection 19.402.11.D.1 shall submit an Impact Evaluation and Alternatives Analysis, as outlined in Subsection 19.402.12.A, and shall be subject to the approval criteria provided in Subsection 19.402.12.B.

2. Discretionary Review to Approve Mitigation that Varies the Number and Size of Trees and Shrubs within an HCA

An applicant seeking discretionary approval to proportionally vary the number and size of trees and shrubs required to be planted under Subsection 19.402.11.D.2 (e.g., to plant fewer larger trees and shrubs or to plant more smaller trees and shrubs), but who

will comply with all other applicable provisions of Subsection 19.402.11, shall be subject to the following process:

- a. The applicant shall submit the following information:
 - (1) A calculation of the number and size of trees and shrubs the applicant would be required to plant under Subsection 19.402.11.D.2.
 - (2) The number and size of trees and shrubs that the applicant proposes to plant.
 - (3) An explanation of how the proposed number and size of trees and shrubs will achieve, at the end of the third year after initial planting, comparable or better mitigation results than would be achieved if the applicant complied with all of the requirements of Subsection 19.402.11.D.2. Such explanation shall be prepared and signed by a knowledgeable and qualified natural resource professional or a certified landscape architect. It shall include discussion of site preparation including soil additives, removal of invasive and noxious vegetation, plant diversity, plant spacing, and planting season; and immediate post-planting care, including mulching, irrigation, wildlife protection, and weed control.
 - (4) A mitigation, site-monitoring, and site-reporting plan.
- b. Approval of the request shall be based on consideration of the following:
 - (1) Whether the proposed planting will achieve, at the end of the third year after initial planting, comparable or better mitigation results than would be achieved if the applicant complied with all of the requirements of Subsection 19.402.11.D.2.
 - (2) Whether the proposed mitigation adequately addresses the plant diversity, plant survival, and monitoring practices established in Subsection 19.402.11.B.

19.402.13 Land Division and Property Line Adjustments

The following standards apply to property line adjustments and all forms of land division defined in Chapter 17.08. These standards apply in addition to the applicable requirements provided in Title 17 Land Division and elsewhere in Title 19 Zoning. Lot consolidations, as defined in Chapter 17.08, are not subject to the provisions of Section 19.402.

A. Boundary Verification

Whether or not an applicant believes the NR Administrative Map is accurate, the applicant shall verify the boundaries of the WQR and HCA on the property according to Subsection 19.402.15.

B. Construction Management Plans

1. In accordance with Subsection 19.402.9, a construction management plan is required for applications for land division that will require physical site improvements (e.g., grading and/or construction of structures, streets, or utilities) within, or within 100 ft of, a WQR or HCA.
2. A construction management plan is not required for applications for land division that do not require grading; constructing structures, streets, or utilities; or making other physical improvements to the site.

C. Impacts from Site Improvements

Proposed Code Amendment

Applications for land division that will require physical site improvements (e.g., grading and/or the construction of streets, sidewalks, culverts, bridges, or utilities) within a WQR or HCA shall comply with the relevant standards for disturbance limitation and mitigation provided in Subsections 19.402.11 and/or 19.402.12, as applicable.

D. Mitigation for Future Structures or Improvements

Applications proposing a division of land on which future construction may impact a WQR or HCA shall comply with one of the following two standards:

1. Complete the mitigation requirements for any impacts to the WQR or HCA, in accordance with the requirements of Section 19.402, thereby exempting all subsequent development on lots containing a WQR and/or HCA from further review if in compliance with the related approval. When mitigation is required for new streets created as part of a subdivision, as outlined in Subsection 19.402.13.I, such mitigation shall be completed prior to approval of the final plat for the subdivision, unless the Planning Commission's approval establishes a different schedule.
2. Not complete the mitigation requirements, thus requiring that any subsequent development be subject to review under Section 19.402.

E. Property Line Adjustments

Applications for property line adjustment, when any of the properties include HCAs, shall address the resulting change in the percentage of HCA coverage on each property and demonstrate compliance with one of the following standards:

1. The proposed property line adjustment will result in no more than a 30-point difference in the percentage of HCA coverage on each property. Such an adjustment shall be subject to the Type I review process.
2. The proposed property line adjustment will not contravene a condition of approval related to HCA distribution from a previously approved land division. Such an adjustment shall be subject to the Type I review process.
3. The proposed property line adjustment cannot meet the standard of Subsection 19.402.13.E.1, above, but will result in the smallest practicable difference in the percentage of HCA coverage on each property. Furthermore, the new boundary configuration will mitigate, to the extent practicable, the potential future impacts to the HCA from access and development. Such an adjustment shall be subject to the Type II review process.

F. Replats

For the purpose of compliance with Section 19.402, replats that result in 3 or fewer lots shall be processed as partitions; replats that result in 4 or more lots shall be processed as subdivisions.

G. Low-Impact Partitions

Applications for partitions are subject to Type II review if they demonstrate compliance with the following standards:

1. For properties that contain HCAs, but no WQRs, and where the HCA covers 85% or less of the total lot area, the partition shall achieve either of the following results:
 - a. There shall be no more than a 30-point difference in the percentage of HCA coverage on each of the new parcels. For example, a 2-lot partition that would produce one parcel that is 55% HCA and the other that is 30% HCA is permissible

with Type II review; whereas, a 2-lot partition that would produce one parcel that is 75% HCA and the other that is 40% HCA is not permissible with Type II review and shall be subject to the standards of Subsection 19.402.13.H.

- b. At least 90% of the original property's HCA is on a separate unbuildable parcel, protected by a conservation restriction.
2. For properties that contain WQRs, the applicant shall place 100% of the WQR in a separate unbuildable tract, protected by a conservation restriction.
3. For properties that contain both WQRs and HCAs, the applicant shall comply with both of the standards listed above in Subsections 19.402.13.G.1 and 2.
4. For properties where the HCA covers more than 85% of the total lot area, the proposed partition shall be subject to the standards and review process established in Subsection 19.402.13.H.

H. All Other Partitions

Applications for partitions that cannot comply with Subsection 19.402.13.G are subject to Type III review and shall comply with one of the following two standards:

1. For properties that do not contain any WQRs, but for which it is not practicable to comply with the partition standards in Subsection 19.402.13.G.1, and where the HCA covers 85% or less of the total lot area, the application shall meet the following standards and is not subject to the requirements of Subsection 19.402.12:
 - a. The partition plan shall result in the smallest practicable percentage point difference in HCA coverage on the parcels created by the partition.
 - b. To the extent practicable, the parcel configuration shall mitigate the potential future impacts to the HCA from access and development.
2. For properties that contain WQRs but cannot comply with Subsection 19.402.13.G.2, that contain both WQRs and HCAs but cannot comply with Subsection 19.402.13.G.3, or where the HCA covers more than 85% of the total lot area, the application shall comply with the following standards:
 - a. To the extent practicable, the parcel configuration shall mitigate the potential future impacts to WQRs from access and development.
 - b. An Impact Evaluation and Alternatives Analysis shall be prepared in accordance with the relevant portions of Subsection 19.402.12.A.
 - c. For properties where the HCA covers more than 85% of the total lot area, the Impact Evaluation and Alternatives Analysis shall address how the applicant's proposal retains the greatest practicable degree of contiguity of the HCA across the new parcels.

I. Subdivisions

Applications for subdivisions are subject to Type III review and shall comply with one of the following two standards:

1. At least 90% of the property's HCA and 100% of the property's WQR shall be located in a separate tract. Applications that meet this standard are not subject to the discretionary review requirements of Subsection 19.402.12.
2. If a subdivision cannot comply with the standards in Subsection 19.402.13.I.1, the application shall comply with the following standards:

- a. All proposed lots shall have adequate buildable area outside of the WQR and HCA.
- b. To the extent practicable, the lot and access configurations shall mitigate the potential future impacts to the WQR and HCA from access and development.
- c. An Impact Evaluation and Alternatives Analysis shall be prepared in accordance with the relevant portions of Subsection 19.402.12.A.
- d. For properties where the HCA covers more than 85% of the total lot area, the Impact Evaluation and Alternatives Analysis shall address how the applicant's proposal retains the greatest practicable degree of contiguity of the HCA across the new lots.

J. Resource Area as a Separate Tract

Where required by Section 19.402, the new subdivision or partition plat shall delineate and show all WQRs and HCAs as being located in a separate unbuildable tract(s) according to the following process:

1. Prior to preliminary plat approval, the designated natural resource (whether WQR, HCA, or both) shall be shown as a separate tract(s), which shall not be part of any lot or parcel used for construction of any structures.
2. Prior to final plat approval, ownership of the separate natural resource tract(s) shall be identified to distinguish it from lots or parcels intended for sale. Ownership in common or by a homeowners association is strongly discouraged. The tract(s) may be identified as any one of the following:
 - a. Private natural area held by the owner with a restrictive covenant and/or conservation easement.
 - b. For residential subdivisions, private natural area subject to an easement conveying storm and surface water management rights to the City of Milwaukie, Clackamas County Water Environment Services, and/or any other relevant jurisdiction, and preventing the owner of the tract from activities and uses inconsistent with the purposes of Section 19.402.
 - c. Public natural area where the tract has been dedicated to the City of Milwaukie or a private nonprofit with the mission of land conservation.
3. The boundaries of all such separate tracts shall be demarcated with stakes, flags, or some similar means so that the boundaries between tracts and adjacent properties are defined in perpetuity. Fences that prevent the unfettered passage of wildlife shall not be installed along the boundary of any tract.

19.402.14 Adjustments and Variances

To encourage applicants to avoid or minimize impacts to WQRs and/or HCAs, several types of adjustments and variances are available for use on any property that includes a WQR or HCA. These include adjustments to specific base zone and lot design standards, discretionary variances, and allowances for residential cluster development.

A. Adjustments

The adjustments provided in Subsection 19.402.14.A shall not be used to avoid the requirement to submit a construction management plan, if deemed applicable per Subsection 19.402.3. The following adjustments are allowed by right as part of any Type I, II, or III application:

1. Adjustments to Base Zone Standards

a. Yard Setback (General)

Yard setback standards may be adjusted by up to 10%. This allowance applies only to the yard requirements established in base zones and does not apply to additional yard requirements for conditional uses or community service uses, yard exceptions established in Subsection 19.501.2, or transition area measures established in Subsection 19.504.6.

b. Rear Yard Setback (Limited)

For residential development, if the subject property is adjacent to a separate tract that was established according to the standards of Subsection 19.402.13.J, and the tract is adjacent to the rear yard of the subject property, the minimum rear yard requirement may be reduced to 10 ft.

2. Adjustments to Lot Design Standards

When property boundaries are changed and/or land divided per Title 17 Land Division, an applicant may utilize the following adjustments to avoid or minimize impacts to a WQR or HCA:

- a. The minimum base zone standards for lot width and lot depth may be reduced by up to 10%.
- b. The minimum lot frontage required on a public street may be reduced by up to 10%.

B. Variances

- 1. Requests to vary any standards beyond the adjustments allowed in Subsections 19.402.14.A or B shall be subject to the review process and approval criteria for variances established in Section 19.911.
- 2. In granting any variance request related to Section 19.402, the Planning Commission may impose such conditions as are deemed necessary to minimize adverse impacts that may result from granting the variance. Examples of such conditions include, but are not limited to, maintaining a minimum width of the vegetated corridor alongside a primary protected water feature and limiting the amount of WQR for which the adjacent vegetated corridor width can be reduced.

C. Residential Cluster Development

For residential proposals, development may be clustered so that land can be developed at allowed densities while avoiding or minimizing impacts to WQRs or HCAs. The intent of this section is to encourage creative and flexible site design that enables the allowable density to be transferred elsewhere on a site to protect environmentally sensitive areas and preserve open space and natural features. A residential cluster development may be permitted in any residential or mixed use zoning district, subject to Type III review and approval by the Planning Commission. A cluster development proposal may be considered in conjunction with a proposal for land division or property line adjustment as provided in Subsection 19.402.13.

1. Calculation of Permitted Number of Dwelling Units

- a. The maximum number of dwelling units proposed for a residential cluster development shall not exceed the number of dwelling units otherwise permitted for the residential zoning district in which the parcel is located. The number of units

allowed on a parent lot may be transferred to one or more newly created lots or parcels on the site. The cumulative density for all lots or parcels shall not exceed the density allowed for the parent lot.

- b. The number of permitted dwelling units on a site shall be calculated in the following manner:
 - (1) Measure the gross area of the proposed cluster development site in acres and tenths of an acre.
 - (2) From the gross area, subtract the area of public streets, other publicly dedicated improvements, and common open space (whether or not it is conveyed pursuant to Subsection 19.402.14.C.2.c), measured in acres and tenths of an acre. The remainder shall be the net buildable area.
 - (3) Convert the net buildable area from acres to square feet, using the equivalency of 43,560 sq ft = 1 acre.
 - (4) Divide the net buildable area by the smallest minimum lot size (in square feet) per unit for a dwelling unit permitted in the zoning district. This figure shall be rounded to the nearest lower number to establish the maximum number of dwelling units permitted in the cluster development.

2. Development Standards

- a. All principal and accessory uses authorized in the underlying zoning district(s) shall be allowed in the cluster development. In addition, single-family attached dwellings, multifamily dwellings, and townhouses may be permitted for a cluster development located in a residential zoning district that does not otherwise allow attached dwelling units.
- b. Maximum lot coverage, building height, and off-street parking requirements for the applicable zoning district shall apply to the cluster development. Maximum lot coverage, floor area ratios, and off-street parking requirements shall be applied to the entire site rather than to any individual lot.
- c. The following provisions shall apply to any residential cluster development, regardless of the general requirements of the applicable residential zoning district:
 - (1) The adjustments allowed by Subsection 19.402.14.A shall be available for cluster development proposals.
 - (2) Minimum lot width and lot depth standards shall not apply.
 - (3) A minimum separation of 10 ft shall be provided between all principal buildings and structures.
 - (4) A minimum yard or common open space shall be provided, with a minimum depth of 25 ft, as measured from all public streets and from the side and rear lot lines of the entire cluster development.
 - (5) Each lot shall provide at least 12 ft of frontage on a public street.
 - (6) More than 1 principal building or structure may be placed on a lot.
 - (7) No less than 25% of the site shall be conveyed as common open space.
 - (8) No less than 50% of the designated natural resources on the site shall be included in calculating the common open space.

3. Site Plan Requirements

The preliminary and final site plans for a residential cluster development shall include the following information, in addition to the items listed on the City's Site Plan Requirements:

- a. The maximum number and type of dwelling units proposed.
- b. The areas of the site on which the dwelling units are to be constructed or are currently located and their size. This may take the form of the footprint of the dwelling unit or a building envelope showing the general area in which the dwelling unit is to be located.
- c. The calculations for the permitted number of dwelling units, derived pursuant to Subsection 19.402.14.C.2.
- d. The areas of the site on which other principal and accessory uses are proposed to be located and their size.
- e. The areas of the site designated for common open space and their size.

4. Approval Criteria

- a. Proposals for residential cluster development shall demonstrate compliance with the following criteria:
 - (1) The site plan satisfies the requirements of Subsections 19.402.14.C.1 and 2.
 - (2) Buildings and structures are adequately grouped so that at least 25% of the total area of the site is set aside as common open space. To the greatest degree practicable, common open space shall be designated as a single tract and not divided into unconnected small parcels located in various parts of the development. Common open space shall be conveyed as allowed by Subsection 19.402.13.J.
 - (3) Individual lots, buildings, structures, streets, and parking areas are situated to minimize the alteration of natural features, natural vegetation, and topography.
 - (4) Impacts to WQRs and HCAs are avoided or minimized to the greatest degree practicable.
 - (5) The cluster development advances the purposes established in Subsection 19.402.1.
- b. The Planning Commission may apply such conditions or stipulations to its approval as may be required to maintain harmony with neighboring uses and promote the objectives and purposes of the Comprehensive Plan and the Zoning and Land Division Ordinances.
- c. If the Planning Commission finds that the criteria in Subsection 19.402.14.C.4.a are met, it shall approve the residential cluster development, subject to any conditions established pursuant to Subsection 19.402.14.C.4.b.

19.402.15 Boundary Verification and Map Administration

The NR Administrative Map shows the locations of WQRs and HCAs. For WQRs, the NR Administrative Map is a general indicator of protected water features and their associated vegetated corridors; the location of actual WQRs is determined according to the parameters established in Table 19.402.15. With respect to HCA locations, the NR Administrative Map is assumed to be correct unless demonstrated otherwise.

Table 19.402.15 Determination of WQR Location			
Protected Water Feature Type	Slope Adjacent to Protected Water Feature	Starting Point for Measurements from Protected Water Feature	Width of Vegetated Corridor²
Primary Protected Water Features ¹	< 25%	<ul style="list-style-type: none"> • Bankful stage (top of bank) or 2-year recurrence interval flood elevation • Delineated edge of Title 3 wetland 	50'
Primary Protected Water Features ¹	≥ 25% for 150' or more ³	<ul style="list-style-type: none"> • Bankful stage or 2-year flood elevation • Delineated edge of Title 3 wetland 	200'
Primary Protected Water Features ¹	≥ 25% for less than 150' ³	<ul style="list-style-type: none"> • Bankful stage or 2-year flood elevation • Delineated edge of Title 3 wetland 	Distance from starting point of measurement to top of ravine (break in ≥ 25% slope) ⁴ plus 50' ⁵
Secondary Protected Water Features ⁶	< 25%	<ul style="list-style-type: none"> • Bankful stage or 2-year flood elevation 	15'
Secondary Protected Water Features ⁶	≥ 25% ³	<ul style="list-style-type: none"> • Bankful stage or 2-year flood elevation 	50'

¹ Primary protected water features include: all perennial streams, streams draining 100 or more acres, Title 3 wetlands, and natural lakes and springs. See Section 19.201 for the full definition.

² Vegetated corridor width shall be applied to the outer boundaries of water features, such as the edge of a wetland and both banks of a watercourse.

³ Vegetated corridors in excess of 50 ft for primary protected features, or in excess of 15 ft for secondary protected features, apply on steep slopes only in the uphill direction from the protected water feature.

⁴ Where the protected water feature is confined by a ravine or gully, the top of ravine is the break in the ≥ 25% slope.

⁵ A maximum reduction of 25 ft may be permitted in the width of the vegetated corridor beyond the slope break if a geotechnical report demonstrates that the slope is stable. To establish the width of the vegetated corridor, slope should be measured in 25-ft increments away from the water feature until the slope is less than 25% (top of ravine).

⁶ Secondary protected water features include intermittent streams draining 50 to 100 acres. See Section 19.201 for the full definition.

A. Boundary Verification

To determine whether the standards of Section 19.402 apply to a proposed activity at any given location, the boundaries of any designated natural resource(s) on or near the site shall be verified.

Agreement with the accuracy of the NR Administrative Map does not constitute or require a land use decision. However, for activities proposed within 100 ft of a wetland or its associated vegetated corridor, the boundary verification process outlined in Subsection 19.402.15.A.2.a(1)(b) shall be followed to identify the specific location of wetlands on the subject property. The Planning Director may waive the requirement for official wetland delineation, depending on the specific circumstances of the site and the proposed activity. Such circumstances may include, but are not limited to, the scale and potential impacts of the proposed activity, the proximity of the proposed activity to the mapped resource, and

the Director's confidence in the accuracy of the NR Administrative Map relative to the resource in question.

An applicant may challenge the accuracy of the NR Administrative Map through either of the boundary verification processes outlined in Subsections 19.402.15.A.1 and 2.

1. Type I Boundary Verification

The following minor corrections to mapped HCAs may be proposed according to one of the following procedures, and are subject to Type I review per Section 19.1004:

a. Simple Incongruities

In some cases, the vegetative cover data shown on the NR Administrative Map might not align with the location of existing legally established development or tree cover. An applicant who believes that the NR Administrative Map is inaccurate, based on such an obvious misalignment, shall submit the following information regarding the property:

- (1) A detailed property description and site plan of the property that includes all existing conditions plans listed on the City's Site Plan Requirements.
- (2) A copy of the applicable NR Administrative Map section.
- (3) The latest available aerial photograph of the property, with lot lines shown, at a scale of at least 1 map inch equal to 50 ft for lots of 20,000 or fewer square feet, and a scale of 1 map inch equal to 100 ft for larger lots.
- (4) A documented demonstration of the misalignment between the NR Administrative Map and the property's tax lot boundary lines and/or the location of existing legally established development.
- (5) Any other factual information that the applicant wishes to provide to support boundary verification.

b. Legal Development Prior to Adoption Date

If a property was legally developed between the summer of 2002 (when the aerial photograph used to determine the regional habitat inventory was taken) and DATE, the effective date of Ordinance #____, the applicant shall submit the following information regarding the property:

- (1) The information described in Subsection 19.402.15.A.1.a.
- (2) A summer 2002 aerial photograph of the property, with lot lines shown, at a scale of at least 1 map inch equal to 50 ft for lots of 20,000 or fewer square feet, and a scale of 1 map inch equal to 100 ft for larger lots.
- (3) Any approved building permits or other development plans and drawings related to the development of the property that took place between summer 2002 and DATE, the effective date of Ordinance #____.
- (4) A clear explanation and documentation, such as supporting maps or drawings or a more recent aerial photograph, indicating the new development that has occurred and where previously identified habitat no longer exists because it is now part of a developed area.

2. Type II Boundary Verification

Corrections to mapped WQRs and/or detailed verification of mapped HCAs may be proposed according to the following procedures, and are subject to Type II review per Section 19.1005.

a. Corrections to WQRs

(1) Submittal Requirements

To propose a correction to a WQR shown on the NR Administrative Map, the applicant shall submit the following information, depending on the type of water feature in question:

(a) Drainages

In the case of drainages; including rivers, streams, springs, and natural lakes; the applicant shall submit a hydrology report, prepared by a professional engineer, demonstrating whether or not the drainage meets the definition of a protected water feature. If the drainage is demonstrated to be a protected water feature, the applicant shall provide a topographic map of the site, with contour intervals of 5 ft or less, that shows the specific location of the drainage on the subject property.

(b) Wetlands

In the case of wetlands, the applicant shall submit a wetland delineation report, prepared by a professional wetland specialist in accordance with the 1996 Oregon Freshwater Wetland Assessment Methodology and following the wetlands delineation process established by DSL, demonstrating the location of any wetlands on the site. The delineation report will be accepted only after approval by DSL. If the wetland is demonstrated to be a primary protected water feature, the applicant shall provide a topographic map of the site, with contour intervals of 5 ft or less, that shows the specific location of the wetland on the subject property.

The Planning Director shall confer with DSL and Metro to confirm delineation and hydrology reports, as may be needed, prior to issuing a notice of decision on a requested map correction.

(2) Approval Criteria

The City shall update the NR Administrative Map if the wetland or hydrology report submitted demonstrates any of the following:

- (a) That there was an error in the original mapping.
- (b) That the boundaries of the WQR have changed since the most recent update to the NR Administrative Map.
- (c) That a primary protected water feature no longer exists because the area has been legally filled, culverted, or developed prior to January 16, 2003, the effective date of Ordinance #1912.

b. Detailed Verification of HCAs

An applicant who believes that an HCA shown on the NR Administrative Map should be corrected for a reason other than those described in Subsections 19.402.15.A.1.a or b may propose a detailed verification.

(1) Submittal Requirements

The applicant shall submit a report prepared and signed by either a knowledgeable and qualified natural resource professional; such as a wildlife biologist, botanist, or hydrologist; or a civil or environmental engineer registered in Oregon to design public sanitary or storm systems, stormwater facilities, or other similar facilities. The report shall include:

- (a) A description of the qualifications and experience of all persons that contributed to the report and, for each person that contributed, a description of the elements of the analysis to which the person contributed.
- (b) The information described in Subsection 19.402.15.A.1.a.
- (c) The information described in Subsection 19.402.15.A.1.b, if the applicant believes such information is relevant to the verification of habitat location on the subject lot or parcel.
- (d) Additional aerial photographs, if the applicant believes they provide better information regarding the property, including documentation of the date and process used to take the photos and an expert's interpretation of the additional information they provide.
- (e) A map showing the topography of the property shown by 2-ft vertical contours in areas of slopes less than 15%, and at 5-ft vertical contours of slopes 15% or greater.
- (f) Any additional information necessary to address each of the detailed verification criteria provided in Subsection 19.402.15.A.2.b(2); a description of where any HCAs are located on the property, based on the application of the detailed verification criteria; and factual documentation to support the analysis.

(2) Approval Criteria

A boundary verification request submitted under Subsection 19.402.15.A.2.b shall be evaluated according to the following three-step process:

(a) Verify Boundaries of Inventoried Riparian Habitat

Locating habitat and determining the riparian habitat class of the designated natural resource is a four-step process:

- (i) Locate the water feature that is the basis for identifying riparian habitat.
 - Locate the top of bank of all streams, rivers, and open water within 200 ft of the property.
 - Locate all flood areas within 100 ft of the property.
 - Locate all wetlands within 150 ft of the property, based on the NR Administrative Map. Identified wetlands shall be further delineated consistent with methods currently accepted by DSL and the Corps.
- (ii) Identify the vegetative cover status of all areas on the property that are within 200 ft of the top of bank of streams, rivers, and open water;

are wetlands or are within 150 ft of wetlands; and are flood areas and within 100 ft of flood areas.

- Vegetative cover status shall be as identified on the latest Metro Vegetative Cover Map (available from the City and/or the Metro Data Resource Center).
 - The vegetative cover status of a property may be adjusted only if: (1) the property was legally developed prior to DATE, the effective date of Ordinance #____ (see Subsection 19.402.15.A.1.b); or (2) an error was made at the time the vegetative cover status was determined. To assert the latter type of error, applicants shall submit an analysis of the vegetative cover on their property, using the aerial photographs on which the latest Metro Vegetative Cover Map is based and the definitions of the different vegetative cover types identified in Table 19.402.15.A.2.b(2)(a)(iv).
- (iii) Determine whether the degree that the land slopes upward from all streams, rivers, and open water within 200 ft of the property is greater than or less than 25%, using the methodology outlined in Table 19.402.15.
- (iv) Identify the riparian habitat classes applicable to all areas on the property using Table 19.402.15.A.2.b(2)(a)(iv) and the data identified in Subsections 19.402.15.A.2.b(2)(a)(i) through (iii).

**Table 19.402.15.A.2.b(2)(a)(iv)
Method for Determining Classification of Riparian Areas**

Distance from Protected Water Feature	Development/Vegetation Status ¹		
	Low Structure Vegetation or Open Soils ²	Woody Vegetation (shrub and scattered forest canopy) ³	Forest Canopy (closed to open forest canopy) ⁴
Surface Streams			
0'-50'	Class I ⁵	Class I	Class I
51'-100'	Class II ⁶	Class I	Class I
101'-150'	Class II ⁶ if slope>25%	Class II ⁶ if slope>25%	Class II ⁶
151'-200'	Class II ⁶ if slope>25%	Class II ⁶ if slope>25%	Class II ⁶ if slope>25%
Wetlands (wetland feature itself is a Class I riparian area)			
0'-100'	Class II ⁶	Class I	Class I
101'-150'			Class II ⁵
Flood Areas			
Within 300' of river or surface stream	Class I	Class I	Class I
More than 300' from river or surface stream	Class II ⁶	Class II ⁶	Class I
0'-100' from edge of flood area		Class II ^{6, 7}	Class II ⁶

¹ The vegetative cover type assigned to any particular area was based on two factors: the type of vegetation observed in aerial photographs and the size of the overall contiguous area of vegetative cover to which a particular piece of vegetation belonged.

² "Low structure vegetation or open soils" means areas that are part of a contiguous area 1 acre or larger of grass, meadow, croplands, or areas of open soils located within 300 ft of a surface stream. Low structure vegetation areas may include areas of shrub vegetation less than 1 acre in size; if they are contiguous with areas of grass, meadow, croplands, orchards, Christmas tree farms, holly farms, or areas of open soils located within 300 ft of a surface stream; and if those contiguous areas together together form an area of 1 acre in size or larger.

³ "Woody vegetation" means areas that are part of a contiguous area 1 acre or larger of shrub or open or scattered forest canopy (less than 60% crown closure) located within 300 ft of a surface stream.

⁴ "Forest canopy" means areas that are part of a contiguous grove of trees of 1 acre or larger in area with approximately 60% or greater crown closure, irrespective of whether the entire grove is within 200 ft of the relevant water feature.

⁵ Except that areas within 50 ft of surface streams shall be Class II riparian areas if their vegetation status is "low structure vegetation or open soils," and they are high gradient streams. High gradient streams are identified on the Metro Vegetative Cover Map. If a property owner believes the gradient of a stream was incorrectly identified, then the property owner may demonstrate the correct classification by identifying the channel type using the methodology described in the *Oregon Watershed Assessment Manual*, published by OWEB, and appended to Metro's *Riparian Corridor and Wildlife Habitat Inventories Report*, Attachment 1 to Exhibit F to Metro Ordinance No. 05-1077C.

⁶ Areas that have been identified as habitats of concern, as designated on the Metro Habitats of Concern Map (on file in the Metro Council office), shall be treated as Class I riparian habitat areas in all cases; subject to the provision of additional information that establishes that they do not meet the criteria used to identify habitats of concern as described in Metro's *Technical Report for Fish and Wildlife*. Examples of habitats of concern include: Oregon white oak woodlands, bottomland hardwood forests, wetlands, native grasslands, riverine islands or deltas, and important wildlife migration corridors.

⁷ Only if within 300 ft of a river or surface stream.

(b) Determine the Property's Urban Development Value

The urban development value of property designated as regionally significant habitat is depicted on the Metro Habitat Urban Development Value Map (available from the Metro Data Resource Center).

- (i) A property's urban development value designation shall be adjusted upward if the Metro 2040 Design Type designation for the property lot or parcel has changed from one with a lower urban development value to one with a higher urban development value. 2040 Design Type designations are identified on the Metro 2040 Applied Concept Map (available from the Metro Data Resource Center).
- (ii) Properties in areas designated on the 2040 Applied Concept Map as Central City, Regional Centers, Town Centers, and Regionally Significant Industrial Areas are considered to be of high urban development value; properties in areas designated as Main Streets, Station Communities, Other Industrial Areas, and Employment Centers are of medium urban development value; and properties in areas designated as Inner and Outer Neighborhoods and Corridors are of low urban development value.
- (iii) As designated in Title 13 of the UGMFP, properties owned by a regionally significant educational or medical facility are designated as high urban development value.

(c) Cross-Reference Habitat Class with Urban Development Value

City verification of the locations of HCAs shall be consistent with Table 19.402.15.A.2.b(2)(c).

Table 19.402.15.A.2.b(2)(c) Method for Identifying Habitat Conservation Areas (HCAs)				
Fish & Wildlife Habitat Classification	High Urban Development Value¹	Medium Urban Development Value²	Low Urban Development Value³	Other Areas: Parks and Open Spaces (no design types outside UGB)
Class I Riparian	HCA	HCA	HCA	HCA
Class II Riparian	HCA	HCA	HCA	HCA
Class A Upland Wildlife	No HCA	No HCA	No HCA	No HCA/HCA ⁴
Class B Upland Wildlife	No HCA	No HCA	No HCA	No HCA/HCA ⁴

NOTE: The default urban development value of property is as depicted on the Metro Habitat Urban Development Value Map. The Metro 2040 Design Type designations provided in the following footnotes are only for use when a city or county is determining whether to make an HCA adjustment.

¹ Primary 2040 design type: Central City, Regional Centers, Town Centers, and Regionally Significant Industrial Areas.

² Secondary 2040 design type: Main Streets, Station Communities, Other Industrial areas, and Employment Centers.

³ Tertiary 2040 design type: Inner and Outer Neighborhoods, Corridors.

⁴ All Class A and B upland wildlife habitat in publicly-owned parks and open spaces shall be considered HCA, except for parks and open spaces where the acquiring agency clearly identified that it was acquiring the property to develop it for active recreational uses.

(3) Notification to Metro and DLCD

When an application for boundary verification proposes corrections to mapped HCAs that would result in a change in HCA designation of 1 acre or more, the City shall notify Metro and the Oregon Department of Land Conservation and Development within 7 days after the application has been deemed complete, in accordance with the Type II referral procedure outlined in Subsection 19.1005.3.A.

B. Map Administration

1. Updates to the NR Administrative Map

When a boundary verification, conducted in accordance with the standards of Subsection 19.402.1.A, demonstrates an error in the location of a WQR or HCA shown on the NR Administrative Map, the City shall update the NR Administrative Map to incorporate the corrected information as soon as practicable. Changes to the NR Administrative Map are not considered amendments to the City's Comprehensive Plan, to Comprehensive Plan Map 5 (Natural Resources), or to the Zoning Map.

2. Mapping Implications of Allowed Disturbances

a. WQRs

Permanent disturbances within a WQR, whether they occurred prior to the adoption of the Zoning Ordinance or are allowed according to the standards of Section 19.402, do not affect the way related WQRs are shown on the NR Administrative Map.

b. HCAs

When disturbances are allowed within HCAs, in accordance with the applicable standards of Section 19.402, the City may update the NR Administrative Map to show that the permanently disturbed area is no longer considered an HCA.

3. Designation of Annexed Areas

When land annexed to the City includes WQRs and/or HCAs, as designated by Clackamas County, those same designations shall be shown on the City's NR Administrative Map at the time of annexation. Verification of the boundaries of such WQRs and/or HCAs shall be processed in accordance with the applicable provisions established in Subsection 19.402.15.A; not necessarily at the time of annexation, but at such time as a new activity is proposed on the annexed property.