EXHIBIT A

Chapter 8.10
CRITICAL AREAS REGULATIONS

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Article I. General Provisions

8.10.0100 Purpose.

A. The purpose of this chapter is to identify critical areas and to supplement the development requirements contained in the Lynnwood Municipal Code by providing for additional controls as required by the Washington State Growth Management Act and other laws. Wetlands, streams, fish and wildlife priority habitat areas, geologically hazardous areas, frequently flooded areas, and critical aquifer recharge areas, as defined in LMC 8.99, constitute critical areas that are of special concern to the city of Lynnwood. The standards and mechanisms established in this chapter are intended to protect the functions and values of these environmentally critical features for the public benefit, while providing property owners with reasonable use of their property. By regulating development and alterations to critical areas this chapter seeks to:

1. Protect the public health, safety and welfare by preventing adverse impacts of development;

2. Educate the public as to the long-term importance of environmentally critical areas and the responsibilities of the city to protect and preserve the natural environment for future generations;

3. Effectively manage environmentally critical areas by regulating development within and adjacent to them;

4. Mitigate unavoidable impacts to environmentally critical areas by regulating alterations in and adjacent to critical areas;

5. Protect the city's critical areas using best available science;

6. Prevent, to the extent practicable, adverse cumulative impacts to all critical areas;

7. Implement critical area regulations while supporting more intense transit oriented development preventing urban sprawl further reducing pollution generating surfaces, vehicle miles traveled, and preserving open space;

8. Encourage improvements to all surface water bodies and watercourses;

9. Protect the public, and public resources and facilities from injury, loss of life, property damage or financial losses due to flooding, erosion, landslides, soil subsidence or steep slope failure;

10. Alert appraisers, assessors, owners and potential buyers or lessees to the potential development limitations of environmentally critical areas;

11. Allow the city of Lynnwood to obtain all information necessary to approve, condition, or deny public or private development proposals;

12. Provide predictability and consistency to the city of Lynnwood's development review process; and

13. Implement the policies of the State Environmental Policy Act, the Growth Management Act, and all city functional plans and policies.

8.10.0110 Applicability.

This chapter establishes regulations for the protection of properties which contain or are adjacent to environmentally critical areas. Environmentally critical areas include those which meet the definitions and requirements of this chapter. The city may inventory critical areas on maps for reference and potential indicator purposes. All critical areas must be verified by separate studies to indicate the extent of such areas. Development proposals for properties which contain or are adjacent to designated or regulated environmentally critical areas shall comply with the provisions and requirements of this chapter.

A. A permit pursuant to LMC 8.90.0740 must be obtained from the city for any development activity within 300-ft of an environmentally critical area or associated buffer.

B. Permits expiration and extensions are subject to LMC Table 8.90.05.

8.10.0111 Exemptions.

A. Certain activities set forth in LMC 8.10.0111.B are exempt from the requirements of this chapter. The administrator may exempt such activities, as well as others, provided:

1. No person shall conduct any activity within or adjacent to any critical area or critical area buffer that is exempt from the provisions of this chapter until such person has given 10 days' advance written notice (unless for an emergency per LMC 8.10.0111.B(1) to the administrator. The notice shall identify the activity to be conducted and the exemption(s) relied upon by the person who intends to conduct such activity; and

2. Such exemptions shall be verified by the administrator and acknowledged in a written notice prior to the commencement of the activity; and

3. Identified impacts are avoided to the maximum extent feasible; and

4. Any unavoidable impacts to critical areas and their buffers are minimized; and

5. Impacted areas are immediately restored.

B. Subject to the conditions and requirements of LMC 8.10.0111.A, the following situations are exempt from the operation of this chapter:

1. Emergency actions necessary to prevent an immediate threat to public health, safety or welfare, or that pose an immediate risk of damage to private or public property, and that require action in a timeframe too short to allow for normal processing of the requirements of this chapter.

   After the emergency action is taken, the administrator shall be notified of these actions within 48 hours. The administrator may require the person or agency relying on this exemption to then restore and/or mitigate for any impacts to critical areas and/or buffers in accordance with an approved critical areas study and/or mitigation plan within 1 year from the date of notice.

2. All existing developed areas located within critical areas or their associated buffers have a legal nonconforming status as to use and setback requirements.

3. Existing structures, facilities, landscaping or other improvements that because of their existing location do not meet the setback requirements of this chapter may be remodeled, reconstructed or replaced, or maintained or repaired, providing that any such activity does not further intrude or encroach into a critical area or buffer, or

adversely affect critical area functions. In the event that a structure or facility is to be reconstructed or replaced due to catastrophic loss (such as a fire, earthquake, or other major event), the property owner shall submit an application and related plans for reconstruction or replacement within two years from the date of the loss. The applicant shall then have one additional year to complete the reconstruction or replacement. In no case shall this exemption be valid for a period longer than three years. Failure to meet these deadlines shall invalidate this exemption, and any future construction activity on that site shall be required to comply with current regulations. Maintenance and repair does not include any modification that increases the amount of impervious surface, and does not include construction of an additional access road. Nothing herein releases the site from compliance with the provisions of Chapter 10.08 LMC or all of LMC Title 8. This title and chapter may impose additional restrictions and limitations on the ability to rebuild or repair the nonconforming use, structure or site plan. They also require maintaining the property and structure in an acceptable condition before reconstruction or repairs are completed.

4. Normal and routine maintenance of existing drainage ditches that do not meet the criteria for being considered a fish and wildlife priority habitat area, drainage retention/detention facilities, or ornamental landscape ponds; provided, that none of these are part of a critical area mitigation plan required by this chapter.

5. Relocation of electric facilities, lines, equipment, or appurtenances, not including substations, with an associated voltage of 55,000 volts or less, and relocation of natural gas, cable communications, telephone facilities, and water, sewer or storm lines, pipes, mains, equipment or appurtenances, only when required and approved by the city, and subject to the following:

    a. No practical alternative location is available; and

    b. The applicant demonstrates such construction is necessary for gravity flow (if applicable); and

    c. Construction is accomplished using best management practices; and

    d. The critical area and buffer environment is protected to the maximum extent possible during construction and maintenance; and

e. The original grade is replaced; and

f. Joint use of a utility corridor by other utilities may be allowed and is strongly encouraged.

F. Installation, construction, replacement, repair, operation or alteration of electric facilities, lines, equipment or appurtenances (not including substations) with an associated voltage of 55,000 volts or less in publicly owned right-of-way (which may be within or adjacent to a critical area or its buffer), subject to full review and approval of the administrator, including any mitigation and restoration requirements established by the administrator.

G. Installation, construction, replacement, repair, operation or alteration of natural gas, cable and telecommunication facilities, water, sewer or storm lines, pipes, mains, equipment or appurtenances in publicly owned right-of-way (which may be within or adjacent to a critical area or its buffer), subject to full review and approval of the administrator, including any mitigation and restoration requirements established by the administrator.

H. Repair or overlay of improved public road and trail surfaces, which may be within or adjacent to a critical area or its buffer, so long as it does not further encroach into the critical area or its buffer.

I. Minor site investigation work necessary for land use submittals, such as surveys, delineations, soil logs, percolation tests, and other related activities where such activities do not require construction of new access roads or significant amounts of excavation or vegetation removal. In every case, impacts to critical areas and buffers shall be minimized and disturbed areas shall be immediately restored.

J. Removal of the following nonnative vegetation with hand labor from critical areas and buffers; provided, that appropriate erosion-control measures are used, and the area is revegetated with native vegetation. This exemption does not apply to mechanical removal.

1. Himalayan blackberry (Rubus discolor, R. armeniacus, R. procerus);

2. Evergreen blackberry (R. laciniatus);

3. English ivy (Hedera helix);

4. Japanese knotweed (Polygonum cuspidatum);

5. Any plant identified as noxious on the Washington State Noxious Weed List.

K. Wetlands that meet the following criteria are not subject to the avoidance and minimization requirements of the mitigation sequence in accordance with the following provisions, and they may be filled if the impacts are fully mitigated based on the remaining actions. Impacts should be mitigated through the purchase of credits from a mitigation bank or in-lieu fee program, if available, consistent with the terms and conditions of the bank or program. In order to verify whether the following criteria are met, it is essential that a critical area report for wetlands meeting the requirements in LMC 8.10.0210 be submitted.

1. All Category IV wetlands less than 4,000 square feet that:
    a. Are located in the areas covered by the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (U.S. Army Corps of Engineers, 2010)
    b. Are not associated with riparian areas or their buffers
    c. Are not associated with shorelines of the state or their associated buffers
    d. Are not part of a wetland mosaic
    e. Do not score 6 or more points for habitat function based on the Washington State Wetland Rating System for Western Washington: 2014 Update (Ecology Publication [#23-06-009]), or as revised by Ecology)
    f. Do not contain a Priority Habitat or a Priority Area for a Priority Species identified by the Washington Department of Fish and Wildlife and do not contain state or federally listed species.
2. Wetlands less than 1,000 square feet that meet the above criteria are exempt from the buffer provisions contained in this chapter.

8.10.0112 Reasonable use exceptions.

A. Residential Neighborhood. A reasonable use exception when located in the residential neighborhood zone may be applied for if application of this chapter would deny all reasonable economic use of the subject property. Reasonable use of the property is to be

determined based on minimizing the impacts to the critical areas while providing economic gains. Methods to reduce the intensity of site development include, but are not limited to:

1. Building setback reductions,
2. Off-street parking elimination or, if only necessary, driveway width limitations to no more than 12-ft, and
3. Minimizing the building footprint of the structure to no more than 600 sf (allowing up to a two-story 1,200 sq foot residence).

B. Other Zones. A proposal may qualify for a reasonable use exception in zones not Residential Neighborhood when application of this chapter would deny all economical use of the property or prevent the proposal from implementing substantial improvements to the critical areas. Such improvements may include, but not limited to, stream restoration, habitat restoration, and wetland enhancements. The proposal's considerations for reasonableness must consider the ecological benefits and impacts to the critical area, surrounding development, comprehensive plan designation, and regional planning significance (such as the Regional Growth Center).

8.10.0115 Allowed low impact uses and activities.

A. Certain low impact uses and activities may be approved by the administrator consistent with this section. These uses must be mitigated according to the applicable terms and conditions detailed in this chapter. The following are allowed low impact uses and activities:

1. Conservation and restoration activities that intend to protect the soil, water, vegetation, or wildlife.

2. Passive recreation and educational facilities within stream buffers and wetland buffers, may be considered if the following criteria are met.

    a. The proposed recreation facility is identified in the Lynnwood Park Plan,

    b. Walkways and trails should generally parallel the outer 25% perimeter of the critical area buffer with minimal crossings,

    c. Significant trees should be preserved,

    d. Walkways, trails, and viewing platforms should use permeable surfaces, and

e. Uses of trail are to be limited to nonmotorized uses.

3. Educational and scientific research activities.

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

5. Enhancement of a wetland buffer through the removal of nonnative invasive plant species and planting beneficial native species. Removal of invasive plant species shall be restricted to hand removal.

8.10.0120 Critical areas signs, monuments and fencing.

A. The boundary of a critical area will be delineated by survey stakes, and/or tape at the time of the completion of the critical area report. The buffer will be established as measured from that boundary. During construction, the buffer edge will be delineated and identified using plastic tape and construction fence, or any other effective measure to prohibit construction activities from encroaching into the critical area and its associated buffer. Those measures will be maintained until completion of the project.

B. Upon completion of the construction of the project, the boundary of the critical area and/or buffer will be designated with permanent signs, monuments and fencing, the design and spacing of which will be left to the discretion of the administrator.

C. All critical areas and their buffers which have been protected through the application of this chapter shall be permanently protected by designating them as native growth protection areas (NGPAs).

8.10.0130 Notice, performance securities, bonds, administration.

A. Notice. The owner of any property found to contain certain critical areas or buffers, on which a development project is approved, shall file for record with Snohomish County a notice approved by the city. Such notice shall identify in the public record the presence of any critical areas or buffers, the application of this chapter to the property, and state that limitations on actions in or affecting such areas may exist. The notice shall run with the land and failure to provide such notice to any purchaser prior to transferring any interest in the property shall be a violation of this chapter.

B. Performance Securities. The administrator may require the applicant of a development proposal to post a cash performance bond or other acceptable security in a form and amount determined sufficient to guarantee satisfactory workmanship, materials, and performance of structures and improvements allowed or required by application of this chapter. The administrator shall release the security upon determining that all requirements established by this chapter have been satisfactorily completed.

C. Performance, Maintenance, and Monitoring Bonds. The administrator may require the applicant whose development proposal is subject to a mitigation plan to post a performance, maintenance and monitoring bond or other security instrument in a form and

amount determined sufficient to guarantee satisfactory performance for the period of time of the maintenance and monitoring period. The bond amount shall be no less than 125 percent of the estimated cost of the mitigation project including any plant materials, soil amendments, temporary irrigation, signs and monuments, and monitoring proposed. The duration of maintenance and monitoring obligations shall be no less than five years, unless determined otherwise by the administrator after consideration of the nature of the proposed mitigation and the likelihood and expense of mitigation failures. The administrator shall release the security upon determining that the mitigation plan has achieved satisfactory success. The performance standards of the mitigation plan shall be agreed upon by the administrator and the applicant during the review process and shall be specified in the mitigation plan.

8.10.0140 Unauthorized alterations.

A. When environmentally critical areas and/or their associated buffers have been illegally altered, the city may require them to be restored to their unaltered condition, and subject them to all terms and conditions of this chapter, including but not limited to increasing the area of the critical area and buffer as compensation for the alteration.

8.10.0150 Enforcement, violations and penalties.

A. It shall be unlawful for any person, firm, or corporation to violate any provision of this chapter. The administrator shall have the authority to enforce any and all provisions of this chapter, by proceeding with the following actions in progressive severity, except in cases where a delay would result in further loss and/or degradation of critical areas:

B. Stop Work Orders. For any action which appears to be in violation of this chapter, the administrator shall have the authority to order the party in question to immediately stop all work until such time as the administrator determines that the action is in compliance with the terms and conditions of this chapter.

C. Civil Remedies and Penalties. Any person, firm, corporation, or association or any agent thereof who violates any of the provisions of this chapter may be subject to the following civil penalties:

1. The city may issue a notice and order under Chapter 1.40 LMC stating any person, firm, corporation or association or any agent thereof who violates any of the provisions of this chapter shall be liable for all damages to public or private property arising from such violation, including the cost of restoring the affected area to an equivalent or improved condition prior to the violation, and set a reasonable amount of time for compliance.

2. The city may require restoration. Restoration may include but is not limited to, the replacement of all improperly removed vegetation with species similar to those which were removed or other approved species such that the biological and habitat values will be replaced or improved to the greatest extent reasonably possible. A study by a qualified expert(s) shall be conducted to determine the conditions which were likely to exist prior to the illegal alteration. Restoration may also include installation and maintenance of erosion control measures.

3. In addition to requiring restoration, the city may assess civil penalties as provided in LMC 1.01.085.

4. The city may require a maintenance bond to ensure compliance with the city's order, subject to the bonding procedure established in LMC 8.10.0130.

5. If the order requiring restoration is not complied with, then the property owner shall be subject to a civil fine of $1,000 per day.

6. If the noncompliance continues for more than 10 days, civil penalties shall be increased to $2,500 per day up to a maximum of $75,000. Fines shall stop on the day that compliance with the order begins, pending successful completion with the compliance order.

7. Any person who objects to a final order of the city under this section may file an appeal to the hearing examiner using the procedure under Process II in LMC 1.35.200 through 1.35.260.

8. Any unpaid civil fines may become a lien against the property, and the city may record said lien.

Article II. Wetlands

8.10.0205 Wetland delineation and rating system.

A. Wetlands shall be identified and delineated in accordance with the approved federal wetland delineation manual and applicable regional supplements as detailed in WAC 173-22-035.

B. Wetland delineations are valid for three years, after such date the city will determine if a revision or additional assessment is necessary.

C. The wetland boundaries established by this process shall be used to meet the requirements of this chapter.

D. The total area of wetlands shall be used for the purpose of classification regardless of whether a proposed development site includes all or only a portion of the wetland.

E. Wetlands shall be categorized using the Department of Ecology's 2014 Washington State Wetland Rating System for Western Washington, as detailed in WAC 365-190-090, or as revised.

8.10.0210 Wetland report - Requirements.

A. Critical areas report requirements for wetlands may be met in "stages" or through multiple reports. The typical sequence of potentially required reports that may in part or in combination fulfill the requirements of this section include:

   1. Wetland reconnaissance report documenting the existence and general location of wetlands in the vicinity of a project area;

   2. Wetland delineation report documenting the extent and boundary of a jurisdictional wetland per RCW 36.70A.175; and

   3. Wetland mitigation report documenting potential wetland impacts and mitigation measures designed to retain or increase the functions and values of a wetland.

B. A wetland critical areas report may include one or more of the above three report types, depending on the information required by the administrator and the extent of potential

wetland impacts. The administrator maintains the authority and discretion to determine which report(s) alone or combined are sufficient to meet the requirements outlined below and to waive report requirements based upon site conditions and the potential for project impacts.

C. A critical area report for wetlands shall be prepared by a qualified professional who is a person certified as a Professional Wetland Scientist through the Society of Wetland Scientists professional certification program or meets the following minimum criteria:

    1. A Bachelor of Science or Bachelor of Arts or equivalent degree in hydrology, soil science, botany, ecology, resource management, or related field, or four years of full-time work experience as a wetland professional may substitute for a degree, and
    2. At least two additional years of full-time work experience as a wetland professional; including delineating wetlands, preparing wetland reports, conducting function assessments, and developing and implementing mitigation plans, and
    3. Completion of additional wetland-specific training programs. This could include a more comprehensive program such as the University of Washington Wetland Science and Management Certificate Program or individual workshops on topics such as wetland delineation, function assessment, mitigation design, hydrophytic plant or hydric soil identification.

C. Area Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for wetlands:

    1. The project area of the proposed activity;

    2. All wetlands and recommended buffers within 300 feet of the project area; and

    3. All shoreline areas, water features, floodplains, and other critical areas, and related buffers within 300 feet of the project area. The location and extent of wetlands and other critical areas existing outside of the project area or subject parcel boundary may be shown in approximation as practical and necessary to provide an assessment of potential project effects.

D. Wetland Analysis. In addition to the minimum required contents of LMC 8.90.0740.D, Applications requirements, a critical areas report for wetlands shall contain an analysis of the wetlands, including the following site and proposal-related information at a minimum:

1. A written assessment and accompanying maps of the wetlands and buffers within the project area as well as a 300 foot area surrounding the project area, including the following information at a minimum:

   a. Wetland delineation and required buffers; and

   b. Existing wetland acreage; and

   c. Wetland category; and

   d. Vegetative, faunal, and hydrologic characteristics; and

   e. Soil and substrate conditions; and

   f. A discussion of the water sources supplying the wetland and documentation of hydrologic regime (locations and discussion of contributing upstream water sources both within the project area and outside of the project area, discussion of downstream features that could be impacted by changes to wetland hydrologic regime, locations of inlet and outlet features, water depths throughout the wetland, evidence of water depths throughout the year: drift lines, algal layers, moss lines, and sediment deposits, and evidence of recharge or discharge); and

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

   The location, extent and analyses of wetlands not contiguous with the subject parcel existing outside of the immediate project area may be described in approximation as practical and necessary to provide an assessment of potential project effects and hydrologic/ecological connectivity to on-site wetlands and other critical areas.

2. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land use activity.

3. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions.

4. Functional evaluation for the wetland and adjacent buffer using a local or state agency staff-recognized method and including the reference of the method and all data sheets.

5. Proposed mitigation, if needed, including a written assessment and accompanying scale maps/drawings of the impacts and mitigation site and adjacent areas consistent with LMC 8.10.0232.

8.10.0220 Standard wetland buffers.

A. Any wetland relocated or replaced because of wetland alterations shall have at least the standard buffer width identified in the table below. Standard buffer widths have been established in accordance with best available science based on wetland category and habitat scores; they shall be as follows:

Table 8.10.020

Wetland Category	Buffer Width (Wetland scores 3-5 habitat points)	Buffer Width (Wetland scores 6-7 habitat points)	Buffer Width (Wetland scores 8-9 habitat points)	Buffer Width based on Special Characteristics
Category I: Based on total score	100 ft.	150 ft.	300 ft.	N/A
Category I: Bogs and Wetlands of High Conservation Value	N/A	N/A	300 ft.	250 ft.
Category I: Forested	100 ft.	150 ft.	300 ft.	N/A
Category II:	100 ft.	150 ft.	300 ft.	150 ft.
Category III:	80 ft.	150 ft.	300 ft.	N/A Except Interdunal - 80ft.
Category IV:	50 ft.	50 ft.	50 ft.	N/A

B. Measures to minimize the impacts of the land use adjacent to the wetlands shall be applied:

Table 8.10.021

Disturbance	Required Measures to Minimize Impacts
Lights	• Direct lights away from wetland
Noise	• Locate activity that generates noise away from wetland
	• For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10-foot heavily vegetated buffer strip immediately adjacent to the outer wetland buffer
Toxic runoff	• Route all new, untreated runoff away from wetland while ensuring wetland is not dewatered
	• Establish covenants limiting use of pesticides within 150 feet of wetlands
	• Apply integrated pest management
Stormwater runoff	• Retrofit stormwater detention and treatment for roads and existing adjacent development
	• Prevent channelized flow from lawns that directly enters the buffer
	• Use Low Impact Development techniques (per PSAT publication on LID techniques)
Change in water regime	• Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns

Disturbance	Required Measures to Minimize Impacts
Pets and human disturbance	• Use privacy fencing OR plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion
	• Place wetland and its buffer in a separate tract or protect with a conservation easement
Dust	• Use best management practices to control dust
Disruption of corridors or connections	• Maintain connections to offsite areas that are undisturbed
	• Restore corridors or connections to offsite habitats by replanting

8.10.0230 Alterations to wetlands and buffers.

A. Alteration, modification, or enhancement of wetlands and buffers may be allowed by this chapter, subject to the review and approval by the administrator. The applicant shall submit to the department a plan detailing the alteration, modification and/or enhancement proposal, along with any proposed mitigation. This plan shall be prepared by a qualified professional. The plans shall meet the criteria of LMC 8.10.0231, LMC 8.10.0232, LMC 8.10.0233, LMC 8.10.0120, and LMC 8.10.013, as applicable.

B. All wetlands and buffers, regardless of category, shall be preserved unless the applicant can demonstrate the following:

1. There is no feasible and reasonable alternative to making the alteration; and

2. Alteration will preserve, improve, or protect the functions of the wetland system including water quality, stormwater detention capabilities, and fish and wildlife habitat; and

3. The mitigation for such alteration has a high probability of success.

8.10.0231 Wetland and buffer alteration criteria.

A. Alteration Criteria. Wetland and buffer alteration allowed by this chapter shall be subject to the following requirements:

1. Each activity or use shall be designed so as to minimize overall wetland and buffer alteration to the greatest extent reasonably possible; and

2. Construction techniques shall be approved by the city prior to any site work; and

3. A mitigation plan shall be approved by the city prior to the issuance of any construction permits; and

4. Compensatory wetland mitigation shall be within the same drainage area (as defined within the city's comprehensive flood and drainage management plan) or within the service area of a certified in-lieu fee program or mitigation bank; and

5. All mitigation work shall be timed prior to or concurrent with the proposed alterations; and

6. When adding to an existing wetland as a result of compensation for wetland losses, the characteristics of the existing wetland shall be maintained.

B. Time for Completion.

1. When alteration is allowed, the city may require that the relocated or compensatory wetland and buffer be completed and functioning prior to allowing the existing wetland to be filled or altered.

2. Mitigation shall be completed prior to granting of temporary or final occupancy, or the completion or final approval of any development activity for which mitigation measures have been required.

3. If the mitigation work is not completed within three years of the city approval of the mitigation plan, the city may require that a reevaluation of the plan be conducted by a qualified wetland professional. The city may require additional requirements based on the recommendations.

8.10.0232 Wetland and buffer mitigation plan.

A. A mitigation plan shall be approved by the city prior to the issuance of any permits for development activity occurring on a lot upon which wetland and/or buffer alteration, reduction, averaging, restoration, creation or enhancement is allowed. The mitigation plan shall:

1. Be prepared by a qualified wetland professional using best available science and the following Washington Department of Ecology accepted guidance: Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Ecology, 2006); and Selecting Wetland Mitigation Sites Using a Watershed Approach (Ecology, 2009) as amended; and

2. Include a baseline study that quantifies the existing functional values and the relationship to the watershed and existing hydrologically connected water bodies; and

3. Include baseline information of surface and subsurface hydrologic conditions, and include an analysis of future hydrologic regime changes from proposed development and proposed hydrologic regime for enhanced, created, or restored wetland mitigation areas; and

4. Specify how functional values will be replaced and when mitigation will occur relative to project construction; and

5. Include provisions for adequate monitoring to ensure success of the mitigation plan. The monitoring plan shall outline the approach for monitoring construction of the mitigation project, and for assessment of the completed project, and shall include a monitoring schedule. A monitoring report shall be submitted annually for a period up to five years to the department unless a more frequent time period is required as a condition of the permit, or a longer period is required by an outside agency. The monitoring report shall document successes, problems and contingency actions of the mitigation project. Monitoring activities may include, but are not limited to:

    a. Establishing vegetation monitoring plots to track changes in plant species composition and density over time; and

    b. Measuring base flow rates and stormwater runoff to model and evaluate hydrologic predictions; and

    c. Sampling fish and wildlife populations to determine habitat utilization, species abundance and diversity; and

d. Sampling surface and subsurface waters to determine pollutant loading, and changes from the natural variability of background conditions; and

6. Include a contingency plan specifying what corrective actions will be taken should the mitigation not be successful; and

7. Include provisions for an assurance device, which may include a bond, to assure that work is completed in accordance with the mitigation plan, and to assure that restoration or rehabilitation is performed in accordance with the contingency plan if mitigation fails within five years of implementation.

8.10.0233 Wetland alteration compensation.

A. As a condition of approving the alteration or relocation of a wetland (or portion of wetland), the city shall require that an area equal to or larger than the altered portion of the wetland be provided as compensation for wetland impacts, so that there is no net loss of wetlands. All wetlands which are created as mitigation for filling shall be relocated either within the same drainage basin as defined by the city's comprehensive flood and drainage management plan, or using mitigation banks and in-lieu fee programs. Mitigation banks and in-lieu fee programs are preferred as compensation for wetland impacts over permittee-responsible mitigation if the wetland alteration falls within the service area of an existing mitigation bank of in-lieu fee program. In the case of permittee responsible mitigation, mitigation actions are preferred to follow this order: restoration, creation, and enhancement.

B. The ratios listed in the table below apply to creation or reestablishment, rehabilitation only, or enhancement only of the altered or relocated wetlands. The first number specifies the acreage of replacement wetlands required, and the second number specifies the acreage of wetlands altered or relocated.

Table 8.10.022

Category and Type of Wetland	Creation or Reestablishment	Rehabilitation Only	Preservation	Enhancement Only
Category IV	1.5:1	3:1	6:1	6:1

Category and Type of Wetland	Creation or Reestablishment	Rehabilitation Only	Preservation	Enhancement Only
Category III	2:1	4:1	8:1	8:1
Category II	3:1	6:1	12:1	12:1
Category I: Based on functions	4:1	8:1	16:1	16:1
Category I: Mature and old growth forest	6:1	12:1	24:1	24:1
Category I: High conservation value/bog	Not considered possible	Not considered possible	24:1	Not considered possible

Table Notes:

1. Ratios for rehabilitation, preservation, and enhancement may be reduced when combined with 1:1 replacement through re-establishment or creation. See Table 6B-2 in Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance – Version 2 (Ecology et al., 2021 or as revised).
2. All proposed preservation sites need to meet the preservation criteria listed in Chapter 070.3.E of Appendix A, Sample Wetland Regulations.
3. The ratios provide in Table 1 are for permanent, direct impacts to wetlands. For recommended ratios for other types of impacts (e.g., long-term temporary, conversions), see Chapters 6B4.4 through 6B4.8 of Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance –Version 2 (Ecology et al., 2021 or as revised).
4. The category of impacted wetland is based on scores for functions. Compensation ratios in this table generally do not apply when impacts involve a wetland whose category is based on special characteristics. Compensation ratios for impacts to wetlands with special characteristics are provided in Table 2 below. Specific tables are provided for western and eastern Washington.

C. The city may increase the ratios under the following circumstances:

1. Uncertainty as to the probable success of the proposed restoration or creation;
2. Significant period of time between destruction and replication of wetland values;
3. Projected losses in functional value;
4. The compensatory mitigation is off site.

8.10.0234 Increased wetland buffer width.

A. The administrator has the authority to increase a wetland buffer width up to 50 percent if the wetland contains a threatened or endangered species or the buffer or adjacent uplands has a slope greater than 15 percent or is susceptible to erosion and standard erosion-control measures will not prevent adverse impacts to the wetland and a larger buffer is needed to protect these critical areas.

8.10.0235 Averaging of wetland buffer widths.

A. Wetland buffer widths may be modified by averaging buffer widths. Buffer width averaging will be allowed only where the applicant can demonstrate that:

1. The total area contained within the wetland buffer after averaging is not less than that contained within the approved buffer prior to averaging; and

2. Averaging is necessary to avoid an extraordinary hardship to the applicant as a result of circumstances peculiar to the property; and

3. The averaged buffer, at its narrowest point, shall not result in a width less than 75 percent of the approved buffer width; and

4. A mitigation and enhancement plan is prepared for the proposed alteration.

8.10.0240 Building setback lines – Wetlands.

A. A building setback line of 15 feet shall be required from the edge of any wetland buffer. Following construction, this helps to prevent encroachment into the buffer while maintaining such structures. The setback shall be identified on the site plan approved by the city. Fences and minor structural intrusions as defined in LMC 8.99, Building Area, into

the area may be allowed if the department determines that such intrusions will not negatively impact the wetland.

Article III. Streams

8.10.0305 Stream – Typing.

A. Streams within the city shall be classified according to the following stream typing system, as established by WAC 222-16-030:

1. Type S. Type S represents any waters that are considered "shorelines of the state."

2. Type F. Type F represents all waters (perennial or seasonal) that are known to be used by fish or contain fish habitat as defined by Department of Natural Resources criteria. This includes Scriber Creek, Swamp Creek, Lund's Creek, and Halls Creek.

3. Type Np. Type Np represents perennial waters that do not contain fish or fish habitat.

4. Type Ns. Type Ns represents intermittent waters that do not contain fish or fish habitat and have intermittent flows. It does include stream reaches located downstream from any Type Np water.

8.10.0310 Stream report – Requirements.

A. Preparation by Qualified Professional. If required by the administrator, the applicant shall submit a stream report prepared by a qualified professional as defined in LMC 8.99.

B. Area Addressed in Critical Area Report. The following areas shall be addressed in a critical area report for streams:

1. The project area of the proposed activity;

2. All streams and recommended buffers within 300 feet of the project area; and

3. All shoreline areas, water features, floodplains, and other critical areas, and related buffers within 300 feet of the project area. The location and extent of streams and other critical areas existing outside of the project area or subject parcel boundary may be

shown in approximation as practical and necessary to provide an assessment of potential project effects.

C. Stream Analysis. In addition to the minimum required contents of LMC 8.90.0740.D, Applications, a critical areas report for streams shall contain an analysis of the streams, including the following site- and proposal-related information at a minimum:

1. A written assessment and accompanying maps of the streams and buffers within 300 feet of the project area, including the following information at a minimum:

   a. Stream locations showing the ordinary high water mark(s), and required buffers;

   b. Stream type;

   c. Vegetative, faunal, and hydrologic characteristics;

   d. Soil and substrate conditions;

   e. A discussion of the water sources draining to the stream; and

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

2. The location, extent and analyses of streams not contiguous with the subject parcel existing outside of the immediate project area may be described in approximation as practical and necessary to provide an assessment of potential project effects and hydrologic/ecological connectivity to on-site streams, wetlands and other critical areas.

3. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing streams and riparian corridors and restore any streams that were degraded prior to the current proposed land use activity.

4. A detailed description and functional assessment of the stream and stream buffer under existing conditions pertaining to the protection of stream functions, fish habitat and, in particular, potential anadromous fisheries.

5. A habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and functions.

6. Proposed mitigation, if needed, including a written assessment and accompanying scale maps/drawings of the impacts and mitigation site and adjacent areas consistent with LMC 8.10.0323.

D. Unless otherwise provided, a stream report may be supplemented by or composed, in whole or in part, of any reports or studies required by other laws and regulations or previously prepared for and applicable to the development proposal site, as approved by the administrator. A stream report may also be combined with a wetland report for sites that contain both critical areas.

8.10.0320 Stream buffers.

A. Stream buffers shall be required for all regulated activities adjacent to regulated streams. Any stream which is relocated or replaced because of stream alterations shall have at least the standard buffer width required for the class of stream involved, unless the alteration is a beneficial restoration project allowed under LMC 8.10.0321. All stream buffers shall be measured from the ordinary high water mark as surveyed in the field. In braided channels and alluvial fans, the ordinary high water mark shall be determined so as to include the entire stream feature. Except as otherwise permitted under this chapter, stream buffers shall be retained in a natural, unaltered condition.

B. The following standard buffer widths shall be required, unless modified and approved in accordance with the provisions of this chapter:

Table 8.10.030

Stream Type	Buffer
Type S	150 ft*****
Type F	150 ft**+**
Type Np	100 ft**+**
Type Ns	100 ft**+**

Table Notes:

*Shoreline Management Code

+Verification of BAS on the RMZ is required in the Critical Area Report. If the width is unable to meet functionality of the RMZ, SPTH is to be substituted.

8.10.0321 Stream alteration allowed.

A. Alteration of natural watercourses and streams shall be avoided, if possible. If unavoidable, the administrator may approve alteration of natural watercourses and streams under the following circumstances:

1. There is no feasible and reasonable alternative to making the alteration; and
2. Alteration will not result in a loss of any functions of the stream system (including habitat, water quality, erosion, etc.); or
3. Such alteration will be a beneficial restoration project.

8.10.0322 Stream alteration criteria.

A. Whenever stream alteration is proposed, the applicant shall prepare a mitigation plan, shall follow the mitigation sequencing requirements of LMC 8.90.0740(D)(1)(g), and shall be subject to the following requirements:

1. Each proposal shall be designed so as to minimize overall stream or buffer alteration to the greatest extent reasonably possible; and
2. Construction techniques and field marking of areas to be disturbed shall be approved by the city prior to site disturbance to ensure minimal encroachment; and
3. When stream relocation is allowed, the city shall require that the stream relocation be completed and functioning prior to allowing the existing stream to be filled or altered; and
4. Additionally, when approving a stream alteration, the city may require:

a. An area larger than the altered portion of the stream and its buffer be provided as compensation for destruction of the functions of the altered stream and buffer and to assure that such functional values are replaced; and/or

b. Development activities be limited to specific months in order to minimize impacts on water quality and wildlife habitat; and/or

c. The city may apply additional conditions or restrictions, or require specific construction techniques in order to minimize impacts to stream systems and their buffers.

8.10.0323 Stream mitigation plan.

A. A mitigation plan shall be approved by the city prior to the issuance of any permits for development activity which proposes stream and/or buffer alteration, reduction, averaging, restoration, creation or enhancement. The mitigation plan shall:

1. Be prepared by a qualified professional using accepted methodologies; and

2. Include a baseline study that quantifies the existing functional values of the system, as well as functional values that may be lost, and the stream's functional values after mitigation; and

3. Specify how functional values will be replaced; and

4. Specify when mitigation will occur relative to project construction; and

5. Specify any requirements or permits required by other agencies, and the status of those permits; and

6. Include provisions for adequate monitoring to ensure success of the mitigation plan. The monitoring plan shall outline the approach for monitoring construction of the mitigation project and for assessment of the completed project, and shall include a schedule. A monitoring report shall be submitted annually for five years to the department unless a more frequent time period is required as a condition of the permit, and shall document successes, problems and contingency actions of the mitigation project. Monitoring activities may include, but are not limited to:

a. Establishing vegetation plots to track changes in plant species composition and density over time;

b. Measuring base flow rates and stormwater runoff to model and evaluate hydrologic predictions;

c. Sampling fish and wildlife populations to determine habitat utilization, species abundance and diversity; and

d. Sampling surface and subsurface waters to determine pollutant loading, and changes from the natural variability of background conditions; and

7. Include a contingency plan specifying what corrective actions will be taken should the mitigation not be successful; and

8. Include provisions for an assurance device, which may include a bond, to assure that work is completed in accordance with the mitigation plan, and to assure that restoration or rehabilitation is performed in accordance with the contingency plan if mitigation fails within five years of implementation.

8.10.0324 Increased stream buffer width.

A. The administrator may increase the standard buffer width required for the category of stream up to 50 percent when necessary to protect streams when the stream is particularly sensitive to disturbance, or the development poses unusual impacts. Circumstances which may require buffers beyond minimum requirements include, but are not limited to:

1. The section of stream affected by the development proposal, and/or the adjacent riparian corridor contains essential habitat; or

2. The land adjacent to the stream and its associated buffer is classified as a geologically hazardous or unstable area; or

3. The riparian corridor provides a significant source of water, provides superior shading of stream waters or contributes organic material important to stream habitat areas; or

4. A trail or utility corridor is proposed within the buffer; or

5. A drainage improvement or water quality feature, such as a grass-lined swale, is proposed within the buffer; or

6. There has previously been substantial alteration of the adjacent buffer, and an increased buffer is necessary to improve the functions and values of the buffer; or

7. When the minimum buffer for a stream extends into an area with a slope of greater than 25 percent, the buffer shall be the greater of:

   a. The minimum buffer for that particular stream type; or

   b. Twenty-five feet beyond the point where the slope becomes 25 percent or less.

8.10.0325 Averaging of stream buffer widths.

A. Stream buffer widths may be modified by averaging buffer widths. Buffer width averaging will be allowed only where the applicant can demonstrate that:

1. The total area contained within the stream buffer after averaging is no less than that contained within the approved buffer prior to averaging; and

2. Averaging is necessary to avoid an extraordinary hardship to the applicant as a result of circumstances peculiar to the property; and

3. The averaged buffer, at its narrowest point, shall not result in a buffer width less than 75 percent of the buffer width allowed for that proposal; and

4. A mitigation and enhancement plan is prepared for the proposal; and

5. Width averaging will not adversely impact the stream functional values.

8.01.0330 Riparian wetland.

A. Any stream adjoined by a riparian wetland shall have the buffer which applies to the wetland, unless the stream buffer requirement is more protective, in which case the stream buffer requirement shall apply.

8.01.0340 Building setback line – Streams.

A. A building setback line of 15 feet shall be required from the edge of any stream buffers. Following construction, this helps to prevent encroachment into the buffer while

maintaining such structures. Fences and minor structural intrusions as defined in LMC 8.99 Building area, into the area may be allowed if the department determines that such intrusions will not negatively impact the stream. The setback shall be identified on the site plan approved by the city.

Article IV.
Fish Wildlife & Priority Habitat

8.10.0405 Fish and wildlife priority habitat.

A. The following environmentally critical areas may be considered priority habitat for the protection of fish and wildlife in the city:

1. Category I and Category II wetlands;
2. Type F streams;
3. Upland areas if one or more of the following criteria are met:
    a. The presence of essential habitat; or
    b. Areas contiguous with large blocks of distinct habitat extending outside of the city limits or providing a travel corridor to a significant resource; or
    c. Areas adjacent to or contiguous with Category I wetlands which enhance the value of those wetlands for wildlife;
4. Areas where endangered, threatened, and sensitive species have a primary association;
5. Habitats and species of local importance, as determined by the city of Lynnwood;
6. Natural occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat.

8.10.0410 Fish and wildlife priority habitat assessment.

A. For a development proposed within or adjacent to an identified “priority habitat area,” the applicant shall provide a habitat assessment prepared by a qualified professional. The assessment shall include an inventory of the priority species, an evaluation of the habitat, and recommendations for protection of the habitat and species of concern. The city may

ask appropriate resource agencies to review and comment on the proposal's potential impact on habitat and species. Based upon recommendations from resource agencies and qualified professionals, the city may attach conditions to land use and development permits to prevent, minimize, or mitigate impacts to the habitat area.

In addition to the general critical areas report requirements of LMC 8.90.0740.D critical area reports for fish and wildlife priority habitat areas shall meet the requirements of this section. Critical areas reports for two or more types of critical areas shall meet the report requirements for each relevant type of critical area.

B. Preparation by a Qualified Professional. A critical areas report for a fish and wildlife priority habitat area shall be prepared by a qualified professional who is a biologist with experience preparing reports for the relevant type of habitat.

C. Areas Addressed in Critical Areas Report. The following areas shall be addressed in a critical areas report for fish and wildlife priority habitat areas:

1. The project area of the proposed activity;

2. All fish and wildlife habitat conservation areas and recommended buffers within 200 feet of the project area;

3. All shoreline areas, floodplains, other critical areas, and related buffers within 200 feet of the project area; and

4. A discussion of the efforts to avoid and minimize potential effects to these resources and the implementation of mitigation/enhancement measures as required.

D. Habitat Assessment. A habitat assessment is an investigation of the project area to evaluate the potential presence or absence of designated critical fish or wildlife species or habitat. A critical areas report for a fish and wildlife priority habitat area shall contain an assessment of habitats, including the following site and proposal-related information at a minimum:

1. Detailed description of vegetation on and adjacent to the project area and its associated buffer;

2. Identification of any species of local importance, priority species, or endangered, threatened, sensitive, or candidate species that have a primary association with habitat

on or adjacent to the project area, and assessment of potential project impacts to the use of the site by the species;

3. A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area.

Article V.

Geologically Hazardous Areas

8.10.0505 Geologically hazardous areas – Identification.

A. Geologically hazardous areas are those areas that are naturally susceptible to geologic events such as landslides, seismic activity and severe erosion. Areas susceptible to one or more of the following types of hazards shall be designated as geologically hazardous areas:

1. *Landslide Hazard Areas.* Areas with slopes steeper than 40 percent. Areas with slopes between 15 to 40 percent that are underlain by soils largely consisting of silt and clay. Areas with slopes steeper than 15 percent with zones of emergent water such as ground water seepage or springs. Areas of landslide deposits regardless of slope.

2. *Erosion Hazard Areas.* Erosion hazards areas are lands underlain by soils identified by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) as having “severe” or “very severe” erosion hazards.

3. *Seismic Hazard Areas.* Seismic hazard areas are lands that are underlain by soft or loose saturated soils that are subject to liquefaction settlement or spreading during earthquake induced ground shaking.

B. Other areas which the city has reason to believe are geologically unstable due to factors such as landslide, seismic or erosion hazards.

8.10.0510 Geotechnical report content requirements.

A. Geotechnical reports shall be prepared and stamped by a geotechnical engineer or engineering geologist licensed by the state of Washington, as appropriate. Geotechnical reports shall be subject to independent (third party) review when determined necessary by

the administrator. Based on the characteristics of the site, the administrator may require any or all of the following items to be addressed in the geotechnical report:

1. A site development plan drawn to scale which shows the boundary lines and dimensions of the subject property, the geologically hazardous areas, the location, size, and type of any existing or proposed structures, impervious surfaces, wells, drain fields, drain field reserve areas, roads, easements, and utilities located on site; and
2. A site map identifying the location of springs, seeps, or other surface expressions of ground water, the location of surface water or evidence of seasonal surface water runoff or ground water, and the location of any subsurface explorations such as test pits or borings; and
3. A discussion of the geological properties of the soils, including any fill, sediment layers, and/or rocks on the subject property and adjacent properties and their effect on the stability of the slope; and
4. The extent and type of vegetative cover prior to development activity or site disturbance; and
5. The proposed method of drainage and locations of all existing and proposed surface and subsurface drainage facilities and patterns, and the locations and methods for erosion control; and
6. A description of the soils in accordance with the Unified Soil Classification System; and
7. Identification of all existing fill areas; and
8. Evidence showing faults, significant geologic contacts, landslides, or downslope soil movement on the subject property and adjacent properties; and
9. Slope stability analyses in areas with potential risk of landsliding; and
10. Site seismic response evaluation in areas with the potential risk of soil liquefaction (potential seismic hazard areas); and
11. A vegetation management and restoration plan, or other means necessary for maintaining long-term stability of slopes.

8.10.0520 Geologically hazardous areas – Setbacks and buffers.

A. Development proposals on lots which are designated as or which the city has reason to believe are geologically unstable or hazardous shall be set back consistent with the following criteria:

1. Landslide Hazard Areas and Erosion Hazard Areas Setback. Except as allowed by LMC 8.10.0521, a minimum of 25 feet from top, toe and sides of such areas. The setback requirement may be increased by the city when necessary to protect public health, safety and welfare, based upon information contained in a geotechnical report. The size of the setback should be determined by the administrator based on review and consideration of recommendations provided in a geotechnical report prepared by a qualified professional.

2. Landslide Hazard Areas and Erosion Hazard Areas Buffer. A buffer may be established with specific requirements and limitations, including but not limited to, drainage, grading, irrigation, and vegetation. Buffer requirements shall be determined by the administrator based on review and consideration of recommendations provided in a geotechnical report prepared by a qualified professional.

3. Seismic Hazard Areas. Activities proposed to be located in seismic hazard areas shall not be required to establish setbacks or buffers. Activities within seismic hazard areas shall meet the standards of LMC Title 16 (Building) and Title 8 (Unified Development Code).

8.10.0521 Geologically hazardous areas – Alterations allowed.

A. Unless associated with a stream or wetland, the city may allow alteration of an area identified as a potentially geologically hazardous area, or its setback. In order to perform such alteration, the applicant shall submit to the department a geotechnical report, containing all elements described in LMC 8.10.0510, and must demonstrate:

1. The proposed development will not create a hazard to the subject property, surrounding properties, or rights-of-way, nor will it cause severe erosion, or deposit excessive sedimentation to off-site properties or bodies of water; and

2. The proposed method of construction will reduce erosion, landslide, and seismic hazard potential, and will improve or not adversely affect the stability of slopes; and

3. The proposal uses construction techniques which minimize disruption of existing topography and natural vegetation; and

4. The proposal is consistent with the purposes and provisions of this chapter.

8.10.0522 Geologically hazardous areas – Alterations conditions.

A. Alteration allowed by this chapter shall be subject to the following requirements:

1. All proposed development be designed and located so as to require the minimum amount of modification to areas of potential geologic instability; and

2. All impacts identified in the geotechnical report be adequately mitigated so as to render the site containing a potential geologic hazard as safe as one not containing such a potential hazard; and

3. As a condition of any approval of development containing a geologically hazardous area or its required setbacks, the city may also require that:

   a. The applicant's geotechnical consultant be present on the site during clearing, grading, filling and construction activities which may affect geological hazard or unstable areas, and provide the city with certification that the construction is in compliance with his/her recommendations and has met with his/her approval; and

   b. Trees and groundcover be retained and additional vegetation or other appropriate soil stabilizing structures and materials be provided.

   c. All development proposals on sites containing potential erosion hazard areas shall include temporary erosion and sediment control plans consistent with adopted surface water design manual and a vegetation management and restoration plan to ensure permanent stabilization of the site.

Article VI.

Frequently Flood Areas

8.10.0605 Frequently flooded areas.

A. Flood hazard areas are those areas of Lynnwood subject to inundation by the one percent chance annual flood, defined as areas of special flood hazard by Chapter 16.46 LMC. Areas of special flood hazard are identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Snohomish County, Washington and Incorporated Areas," dated June 19, 2020, as amended, with accompanying flood insurance rate maps, as amended. Activities in frequently flooded areas must be in compliance with floodplain regulations as described in Chapter 16.46 LMC.

Article VII.

Critical Aquifer Recharge Areas

8.10.0705 Critical aquifer recharge areas - Identification.

A. Critical Aquifer Recharge Areas (CARAs) Designation. CARAs are those areas with a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(3). CARAs have prevailing geologic conditions associated with infiltration rates that create a high potential for contamination of ground water resources or contribute significantly to the replenishment of ground water. In the city of Lynnwood and vicinity, these areas include the following:

1. Wellhead Protection Areas. Wellhead protection areas may be defined by the boundaries of the 10-year time of ground water travel or boundaries established using alternate criteria approved by the Washington State Department of Health in those settings where ground water time of travel is not a reasonable delineation criterion, in accordance with WAC 246-290-135.

2. Susceptible Ground Water Management Areas. Susceptible ground water management areas are areas that have been designated as moderately or highly vulnerable or susceptible in an adopted ground water management program developed pursuant to Chapter 173-100 WAC.

B. Mapping of CARAs. The approximate location and extent of critical aquifer recharge areas are shown on the city critical areas inventory map for CARAs.

8.10.0710 Critical aquifer recharge areas – Additional reporting requirements.

A. In addition to the general critical area report requirements of LMC 8.90.0740.D, critical area reports for critical aquifer recharge areas must meet the requirements of this section.

B. Preparation by a Qualified Professional. An aquifer recharge area critical area report shall be prepared by a qualified professional who is a hydrogeologist, geologist, or engineer, who is licensed in the state of Washington and has experience in preparing hydrogeologic assessments.

C. Hydrogeologic Assessment. For all proposed activities to be located in a critical aquifer recharge area, a critical area report shall contain a level one hydrogeological assessment. A level two hydrogeologic assessment shall be required for any of the following proposed activities:

1. Activities that result in more than five percent or 2,900 square feet total site impervious surface area;

2. Activities that divert, alter, or reduce the flow of surface or ground waters, or otherwise reduce the recharging of the aquifer;

3. The use of hazardous substances, other than household chemicals used according to the directions specified on the packaging for domestic applications;

4. The use of injection wells proposed as part of a stormwater management system;

5. Any other activity determined by the administrator likely to have an adverse impact on ground water quality or quantity or on the recharge of the aquifer.

D. Level One Hydrogeologic Assessment. A level one hydrogeologic assessment shall include the following site- and proposal-related information at a minimum:

1. Available information regarding geologic and hydrogeologic characteristics of the site including the surface location of all critical aquifer recharge areas located on site or immediately adjacent to the site, and permeability of the unsaturated zone;

2. Ground water depth, flow direction, and gradient based on available information;

3. Currently available data on wells and springs within 1,300 feet of the project area;

4. Location of other critical areas, including surface waters, within 1,300 feet of the project area;

5. Available historic water quality data for the area to be affected by the proposed activity; and

6. Best management practices proposed to be utilized.

E. Level Two Hydrogeologic Assessment. A level two hydrogeologic assessment shall include the following site- and proposal-related information at a minimum, in addition to the requirements for a level one hydrogeological assessment:

1. Historic water quality data for the area to be affected by the proposed activity compiled for at least the previous five-year period;

2. Ground water monitoring plan provisions;

3. Discussion of the effects of the proposed project on the ground water quality and quantity, including:

   a. Predictive evaluation of ground water withdrawal effects on nearby wells and surface water features; and

   b. Predictive evaluation of contaminant transport based on potential releases to ground water;

4. A spill plan that identifies equipment and/or structures that could fail, resulting in an impact. Spill plans shall include provisions for regular inspection, repair, and replacement of structures and equipment that could fail.

8.10.0720 Critical aquifer recharge areas – Activities allowed.

A. The following activities are allowed in critical aquifer recharge areas pursuant to this section and do not require submission of a critical area report:

1. Construction of structures and improvements, including additions, resulting in less than five percent or 2,900 square feet (whichever is greater) total site impervious surface area that does not result in a change of use or increase the use of a hazardous substance.

2. Development and improvement of parks, recreation facilities, open space, or conservation areas resulting in less than five percent total site impervious surface area that do not increase the use of a hazardous substance.

8.10.0721 Critical aquifer recharge areas – Performance standards, specific uses.

A. Storage Tanks*.* All storage tanks proposed to be located in a critical aquifer recharge area must comply with local building code requirements and must conform to the following requirements:

1. *Underground Tanks.* All new underground storage facilities proposed for use in the storage of hazardous substances or hazardous wastes shall be designed and constructed so as to prevent releases due to corrosion or structural failure for the operational life of the tank; be protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substances; and use material in the construction or lining of the tank that is compatible with the substance to be stored.

2. Aboveground Tanks. All new aboveground storage facilities proposed for use in the storage of hazardous substances or hazardous wastes shall be designed and constructed so as to not allow the release of a hazardous substance to the ground; have a primary containment area enclosing or underlying the tank or part thereof; and have a secondary containment system either built into the tank structure or a dike system built outside the tank for all tanks.

B. Vehicle Repair and Servicing.

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

2. No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be

abandoned using techniques approved by the state Department of Ecology prior to commencement of the proposed activity.

C. Residential Use of Pesticides and Nutrients. Application of household pesticides, herbicides, and fertilizers shall not exceed times and rates specified on the packaging.

D. State and Federal Regulations. All of the above listed uses, and other uses where state and federal regulations apply, shall be conditioned as necessary to protect critical aquifer recharge areas in accordance with the applicable state and federal regulation. In addition, any water reuse projects for reclaimed water must be in accordance with the adopted water or sewer comprehensive plans that have been approved by the State Departments of Ecology and Health, and must meet the ground water recharge criteria given in RCW 90.46.010(10) and 90.46.080(1). The State Department of Ecology may establish additional discharge limits in accordance with RCW 90.46.080(2).

8.10.0722 Critical aquifer recharge areas – Prohibited uses.

A. The following activities and uses are prohibited in critical aquifer recharge areas:

1. Landfills, including hazardous or dangerous waste, municipal solid waste, special waste, woodwaste, and inert and demolition waste landfills;

2. *Wood Treatment Facilities.* Treatment facilities that allow any portion of the treatment process to occur over permeable surfaces (both natural and manmade);

3. Storage, processing, or disposal of radioactive substances;

4. Other Prohibited Uses or Activities.

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

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

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