CRITICAL AQUIFER RECHARGE AREA REPORT CHECKLIST HANDOUT

ABOUT CRITICAL AQUIFER RECHARGE AREAS

Critical Aquifer Recharge Areas (CARAs) are areas that have a critical effect on aquifers used for potable water. CARAs include wellhead protection areas, which are the surface and subsurface areas surrounding the well, through which contaminants are reasonably likely to move toward and reach the aquifer beneath it. CARAs are regulated under BMC 19.40.420.

UNDERSTANDING CARA PROTECTIONS

CARAs are protected by applying additional standards to regulated activities within designated areas. A regulated facility is any facility or activity located within a critical aquifer recharge area where more than 20 gallons or 200 pounds of hazardous materials or substances are present at any time, unless exempt under BMC 19.10.447.

WHAT IS A HAZARDOUS MATERIALS QUESTIONNAIRE?

This questionnaire is required when proposals for development or redevelopment of regulated facilities within critical aquifer recharge areas are received. Your responses will be reviewed to determine if the facility is regulated under this chapter.

HYDROGEOLOGIC ASSESSMENT REVIEW REQUIRED

A CARA critical area report is required for regulated commercial or industrial facilities when the Director determines, after reviewing the Hazardous Materials Questionnaire (page 2), that the proposed development will process, handle, treat, or store hazardous substances as defined in BMC 19.40.430. Use the checklist (page 3) to document compliance with applicable code sections and help reduce review time. If a requirement does not apply, include an explanation in the report.

WHAT IS THE PURPOSE OF A HYDROGEOLOGIC ASSESSMENT?

A hydrogeologic assessment evaluates how a proposed project may affect groundwater resources, including recharge patterns, aquifer levels, water quality, and site suitability for infiltration. It addresses contamination risks and demonstrates compliance with applicable state and local design standards.

CRITICAL AREA REPORT REQUIREMENTS

A qualified professional must prepare reports. A qualified professional for critical aquifer recharge areas means a hydrogeologist, geologist, engineer, or other scientist with experience in preparing hydrogeologic assessments.

CRITICAL AREA PERMIT PATHWAYS

Critical areas reviews are processed at different levels depending on the scope of work and the type of critical area involved. If you do now know the level of review required, please reference the Critical Area Permits Handout. Critical area review permit pathways are listed on our Critical Areas Permits Handout.

Code Reference

CARA Definition BMC 19.10.084

CARA Development Standards BMC 19.40.430

Contents of a Critical Area Report BMC 19.40.120(4)

Qualified professional BMC 19.40.120; BMC 19.10.430.5

Mitigation Sequencing BMC 19.40.170(2)

Resources

Burien Critical Area Map

DOH Surface Water Assessment Program

Questions?

planning@burienwa.gov

City of Burien
400 SW 152nd St, Suite 300
Burien, WA 98166
Burienwa.gov

Hazardous Materials Questionnaire

Directions: Please respond to all questions below and submit the completed questionnaire with your permit application. During review, if your proposal is determined to be a regulated facility under BMC Chapter 19.40, a hydrogeologic assessment will be required.

1. **Will your facility engage in any of the following activities?**

Activity	Yes	No		Yes	No
Paint removal	☐	☐	Cleaning oily parts	☐	☐
Painting	☐	☐	Dry cleaning	☐	☐
Printing with offset press (not copy machine)	☐	☐	Processing or producing waste liquids	☐	☐
Fuel burning	☐	☐	Processing photographs	☐	☐
Vehicle servicing	☐	☐	Fuel lubricant dispensing	☐	☐
Machine lubrication	☐	☐	Using caustic liquids (alkaline)	☐	☐
Using acids	☐	☐	Using solvents	☐	☐

2. **Will you store any of the following at the facility? In what quantity?**

Materials Stored	Quantity
☐ Oil	
☐ Paint	
☐ Acid	
☐ Cleanser	
☐ Caustic liquid	
☐ Solvents	
☐ Thinners	
☐ Gasoline	
☐ Diesel	

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UPLOAD THIS CHECKLIST ELECTRONICALLY WITH YOUR HYDROGEOLOGIC ASSESSMENT

Use the following checklist when it is determined during the review of the hazardous materials questionnaire that a hydrogeologic assessment is required to be provided with the permit application. Submit the following materials and plans for a complete report. Contact the Department of Community Development with questions. Do not submit your report until all applicable materials have been checked off or documented as not applicable.

A hydrogeologic assessment evaluates how a proposed project may affect groundwater resources. It examines potential changes to recharge patterns, aquifer levels, and water quality, including climate-related impacts such as increased storm intensity, drought, or saltwater intrusion. The assessment also determines site suitability for infiltration, addresses risks of groundwater contamination. It must demonstrate compliance with state and local design standards, including the Stormwater Management Manual for Western Washington and the 2021 King County Stormwater Manual.

When filling out the submittal checklist, please note that it will be required to provide the document and page number where the submittal requirements can be found. Applications that do not provide this sheet and information will not be considered complete and will not be accepted, until the checklist has been submitted.

Critical Area Study General Requirements	PROVIDED (Document name, page number, etc.)
A critical area study containing the following information:	
1. The dates, names, and qualifications of the person preparing the study and documentation of any fieldwork performed on the site.	
2. Identification and characterization of all critical areas, water bodies, and buffers adjacent to the proposed project area or potentially impacted by the proposed project.	
3. A statement specifying the accuracy of the study, and assumptions used in the study.	
4. A determination of the degree of hazard and risk from the proposal both on the site and on surrounding properties.	
5. An assessment of the probable cumulative impacts including past, present, and reasonably foreseeable future actions to critical areas, their buffers and other properties resulting from the proposal.	
6. A description of reasonable efforts made to apply mitigation sequencing to avoid, minimize, and mitigate impacts to critical areas.	
7. When impacts are unavoidable plans for adequate mitigation to offset any impacts.	
8. Recommendations for maintenance, short-term and long-term monitoring, contingency plans and bonding measures.	
9. A written statement from the expert(s) that prepared the critical area study, that he/she has reviewed the project plans and specifications, and that his/her recommendations and design criteria have been fully incorporated into the project documents.	
10. Any other technical information required by the Director.	

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Hydrogeologic Assessment Critical Area Study Specific Requirements	PROVIDED (Document name, page number, etc.)
1. Information sources;	
2. Geologic setting – include well logs or borings used to characterize the area	
3. Background water quality;	
4. Groundwater elevations;	
5. Location/depth to perched water tables;	
6. Recharge potential of the proposed development site (permeability/transmissivity);	
7. Groundwater flow direction and gradient;	
8. Currently available data on wells located within 1,000 feet of site;	
9. Currently available data on any spring within 1,000 feet of site;	
10. Surface water location and recharge potential;	
11. Water source supply to site;	
12. Any sampling schedules necessary;	
13. Discussion of the effects of the proposed project on the groundwater resource, including potential impacts from projected climate change on recharge patterns, aquifer levels, and water quality;	
14. Description of potential mitigation measures, should it be determined that the proposed project may have an adverse impact on groundwater resources; and	
15. Other information as required by the City of Burien.	