Draft Revisions to CARA Ordinance

The Growth Management Act requires Spokane County to designate areas and adopt development regulations for the purpose of protecting areas within the unincorporated areas of Spokane County critical to maintaining ground water recharge and quality. This section specifies the requirements to be enacted when regulated development within these areas is proposed to occur. This section applies to any person, firm, or corporation, which establishes or proposes to establish new, expanded, enlarged or different land use or activity identified in Table 11.20.075B, or a use or activity determined by the Director, in consultation with the Utilities Director or the Hearing Examiner as subject to the intent and purpose of this section, within a designated Critical Aquifer Recharge Areas in the unincorporated areas of Spokane County.
The following Critical Aquifer Recharge Area goals are consistent with the Spokane County Comprehensive Plan, Natural Environment Element, or as amended.

Critical Aquifer Recharge Area Goals

1. Prevent degradation of groundwater quality in Spokane County and improve water quality of aquifers that do not meet state standards.

2. Protect groundwater quality from development impacts.

3. Secure adequate water quantity for the residents of Spokane County.

4. Provide public information programs for land users to demonstrate how to protect critical aquifer recharge areas from degradation.

5. Consistently enforce regulations, effectively monitor compliance and provide incentives to protect critical aquifer recharge areas.

6. Regularly update critical aquifer recharge area protection measures so they are effective, enforceable and equitable.

A. Designation and Rating

1. Critical Aquifer Recharge Areas are those areas with a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). Critical Aquifer Recharge Areas 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.

2. Aquifer recharge areas are rated as having a high, moderate, or low susceptibility based on a scientific analysis of soils, hydraulic conductivity (the ease with which water moves between the surface and aquifers), annual rainfall, the depth to aquifers, the importance of the material between soils and aquifers (Vadose zone), and wellhead protection information. See Appendix N for an explanation of the Aquifer Susceptibility Map.

3. If a parcel lies within two or more susceptibility rating designations, the higher susceptibility rating designation shall apply to the whole parcel.

4. Designated wellhead protection areas, and areas within a 1,000-foot radius of wells without reported plans, are additionally treated as high-susceptibility areas. As wellhead protection plans are completed for wells, the 1,000–foot radius placeholder will be replaced by the Washington State Department of Health-certified wellhead protection area.

B. Uses and Activities Regulated in Critical Aquifer Recharge Areas

Table 11.20.075B establishes the following uses and activities regulated by the requirements of this section. The Director, in consultation with the Utilities Director or the Hearing Examiner may determine that other uses or activities are also subject to the intent and purpose of this section. This table should be interpreted with the corresponding performance standards set forth in section 11.20.075C.

C. Performance Standards for Uses and Activities in Critical Aquifer Recharge Areas

The following are the performance standards applicable to the uses and activities listed in Table 11.20.075B, or a use or activity determined by the Director, in consultation with the Utilities Director or the Hearing Examiner as subject to the intent and purpose of this section. The uses and activities are defined in the Spokane County Zoning Code.

L-1 Agriculture:

1. Agricultural practices that impact critical aquifer recharge areas shall be mitigated by having a conservation plan prepared and the subject property shall be required to comply with approved land management and/or conservation practices that protect groundwater, as set forth in the United States Department of Agriculture Natural Resource Conservation Service (NRCS) Technical Guides, and all local, state and federal regulations and their amendments governing agricultural practices. The NRCS Technical Guide is available at the local field office of the Natural Resource Conservation Service.

2. Agricultural practices that are accessory to a primary residential use, including animal raising and/or keeping, and that exist for the personal enjoyment of the property resident, shall be exempt, and this subsection shall be advisory only as to those accessory agricultural practices.

L-2 Critical Materials Storage, Handling, Generating or Use:

Critical materials subject to the following performance standards are set forth in the Critical Materials List adopted and amended pursuant to Chapter 3.15, or as amended, of the Spokane County Code.

1. All facilities related to the use of critical materials shall be designed so that:

a. Any spilled or leaked critical materials are contained on site;

b. Any spilled or leaked critical materials cannot infiltrate into the ground; and

c. No disposal of any waste containing critical materials shall be allowed on site.

2. Stormwater draining facilities in areas where critical material spills could occur shall be designed so that:

a. Mingling of stormwater and spilled critical materials is prevented; and

b. Spill cleanup procedures are enhanced.

3. Underground storage tanks used for containing critical material shall be installed and maintained according to the provisions in Chapter 3.15 of the Spokane County Code.

a. Surface or subsurface disposal of a critical material is prohibited.

L-3 Wastewater Disposal shall be consistent with the Spokane County Comprehensive Plan, Capital Facilities and Utilities Element goals and policies for sanitary sewer systems together with the following standards:

1. Performance standards applicable to all unincorporated areas.

Critical Material Use Activities that produce a process waste instead of or in addition to sanitary waste shall utilize one of the following methods for waste management and disposal:

a. Separate waste disposal systems shall be provided so those sanitary and process wastes are handled separately. The process waste shall be disposed of by collection in sealed holding tanks and shall be transported and disposed of at a site licensed for disposal of this effluent. An agreement to dispose of process waste under this section shall be recorded in the Spokane County Auditor's office and shall not be removed without approval by Spokane County.

b. Sanitary and/or process waste waters shall be managed in compliance with a valid authorization from a Publicly Owned Treatment Works (POTW), which shall include any required pretreatment or monitoring;

c. Sanitary and/or process wastewaters shall be managed in compliance with a valid surface water discharge permit, which is obtained from the Washington State Department of Ecology.

2. Performance standards for new development located outside of the Urban Growth Area Boundary.

a. ~~**a.**~~ **For n**onresidential uses and activities in moderate and high susceptibility areas, an evaluation of the wastewater loadings shall be conducted using the CARA Spreadsheets. Guidance for the CARA Spreadsheets is located in Appendix P – Guidance for Determining Non-residential Wastewater Loadings to Drain Fields Protective of Moderate and High CARA Susceptibility Areas. Appendix P provides for 3 levels of analysis to evaluate site-specific wastewater loads that are protective of groundwater beneath the site. Compliance levels for the 3 levels of analysis are provided below:

Level 1 and 2 Evaluations: - a maximum of 10 milligrams/liter (mg/L) nitrate-N at the soil/groundwater interface, and no less than a 20-year breakthrough period of phosphorus to nearest surface water

Level 3 Evaluations: - a maximum of 5 mg/L nitrate-N in groundwater at the edge of the drain field, and no less than a 20-year breakthrough period of phosphorus to nearest surface water

If the analyses performed in accordance with Appendix P determine the wastewater loadings are not protective of groundwater beneath the site, a disposal system that protects the aquifer equal to or greater than one of the following is required:

~~**a.** Nonresidential uses and activities in moderate and high susceptibility areas that produce more than 90 gallons of wastewater per acre, per day, and any Critical Material Use Activity that produces sanitary wastewater discharge, shall have a disposal system that protects the aquifer equal to or greater than one of the following:~~

i. Treatment utilizing sealed lagoons;
ii. Treatment utilizing holding tanks with transport and disposal at a site licensed for disposal of the particular effluent;
iii. Treatment in compliance with a valid surface water discharge permit obtained from the Washington State Department of Ecology; or

iv. Treatment in a mechanical wastewater treatment plant that produces less than 3500 gallons per day of effluent which meets the Washington State Drinking Water Standards prior to disposal into the ground using an infiltration system or subsurface disposal system; or

v. Treatment in a mechanical wastewater treatment plant that produces more than 3500 gallons per day of effluent in compliance with a valid state waste discharge permit obtained from the Washington State Department of Ecology and meeting the Ground Water Standards, Chapter 173-200 WAC, or as amended.

b. The evaluation of any plans submitted under RCW 90.48.110 must include consideration of opportunities for the use of reclaimed water as defined in RCW 90.46.010. Wastewater plans submitted under RCW 90.48.110 must include a statement describing how applicable reclamation and reuse elements will be coordinated as required under RCW

c. Nonresidential uses and activities in low susceptibility areas ~~that produce more than 90 gallons of wastewater per acre per day~~ may utilize on-site disposal subject to approval by the Spokane Regional Health District or Washington State Department of Health.

d. ~~Nonresidential uses and activities not involving Critical Material Use Activities and which produce less than 90 gallons of wastewater per acre, per day, may utilize on-site disposal subject to approval by the Spokane Regional Health District or Washington State Department of Health.~~

~~e~~d. Residential uses with lots legally created after March 21, 2000 which requires a new on-site sewage system shall have a minimum lot size of five (5) acres per dwelling unit with the following exceptions.

i. Lots which are part of an approved Rural Cluster Development.

ii. Non-conforming lots that complied with state and local development regulations at the time the parcel was created.

iii. For Rural Activity Centers (RAC).

3. Performance standards for new development located inside of the Urban Growth Area Boundary.

a. Public sewer services consistent with the adopted Levels of Service and concurrency requirements set forth in the Spokane County Comprehensive Plan and the Spokane County Zoning Code, or as amended, are required for all new residential and nonresidential uses.

L-4 Stormwater disposal shall be consistent with the Spokane County Comprehensive Plan, Capital Facilities and Utilities Element goals and policies for stormwater together with the following standards:

1. Within the unincorporated areas of the Liberty Lake Sewer District, stormwater management policies of Spokane County and the Liberty Lake Sewer District shall apply.

2. Development shall provide for the treatment of stormwater run-off from impervious surfaces in a manner consistent with Chapter 9.14 of the Spokane County Code, or as amended, and adopted Stormwater Control Ordinances, or as amended.

3. Direct injection wells without an associated drainage swale or drainage swale system for stormwater disposal within special protection zones of wellhead protections areas are prohibited.

L-5 Mining

Mining shall be subject to the standards of the Mining Zone (M), Chapter 14.636 of the Spokane County Zoning Code, or as amended. For subsequent uses of mining sites, the performance standards for the next-higher category of aquifer susceptibility shall apply using the site's pre-mining susceptibility rating as the base standard

L-6 Landfill 90.46.120(2).

All landfills shall comply with Chapters 173-350 and 173-351 WAC and shall be approved by the Spokane Regional Health District and the Washington State Department of Ecology.

D. Procedures for Hydrogeologic Report/ Study

When a use or activity identified in Table 11.20.075B is proposed, or a use or activity determined by the Director in consultation with the Utilities Director or the Hearing Examiner as subject to the intent and purpose of this section, it shall be subject to the following:

1. The property shall be reviewed for susceptibility of the aquifer and whether mitigation measures for ground water protection are required. The Aquifer Susceptibility Map serves as the first level for review. Section 11.20.075C establishes the minimum mitigation required.

2. The Utilities Director or the Hearing Examiner may require an applicant to submit a Hydrogeologic Report if:

a. The applicant elects to perform a Level 3 wastewater evaluation per section 11.20.075.C.L-3.2.a

~~a~~b. There is insufficient groundwater information to perform an adequate review to assure aquifer protection; or

~~b~~c. There is evidence of groundwater degradation, or known groundwater contamination in the vicinity of a proposed project, and the project could influence or be influenced by the water quality degradation (for example, the identified quality degradation may render the proposed water source unusable or the proposed project may add to existing quality degradation and may render some other users' water source unusable).

An applicant may also voluntarily submit a site-specific Hydrogeologic Report to evaluate the aquifer susceptibility to contamination from a project site.

3. The Utilities Director, in consultation with agencies of expertise, shall review and accept or reject the Hydrogeologic Report.

4. The Utilities Director or Hearing Examiner may approve or deny a proposed project based on the information in the Hydrogeologic Report, or the Utilities Director may adjust the aquifer susceptibility rating of the site and apply appropriate mitigation measures provided for in section 11.20.075C.

5. A Hydrogeologic Report may recommend alternative mitigation measures that the Utilities Director or Hearing Examiner may approve, provided the measures give equal or greater protection to the aquifer.

6. A qualified geologist, as defined in this Ordinance, shall prepare the Hydrogeologic Report. The report shall include, but is not limited to, the following information.

a. A site location map that depicts the site and land parcels within 1,000 feet of the site. The map shall include roads, topography, existing and proposed structures and shall identify land uses within 1,000 feet of the boundaries of the site.

b. Geologic setting, including well logs and other well information for wells within 1,000 feet of the boundaries of the site.

c. Any current available data on any springs or seeps within 1,000 feet of the boundaries of the site.

d. Background water quality data.

e. Water source/supply to facility.

f. Any sampling schedules necessary.

g. Depth/location of any perched water tables or geological features that could form perched water tables if recharge is increased.

h. Groundwater flow direction and gradient.

i. An analysis of aquifer susceptibility to include:

i. Soil types (from the Natural Resources Conservation Service Soil Survey of Spokane County;
ii. Hydraulic conductivity;
iii. Annual recharge (based on estimate of monthly precipitation at the site and an appropriate recharge model).
iv. Depth to water (the depth to the water-bearing zone, not the potentiometric surface);
v. Importance of the Vadose Zone based on the geology above the aquifer;
vi. Discussion of the effects of the proposed project on groundwater resources;
vii. Discussion of potential mitigation measures if the proposed project should have an adverse impact on groundwater resources; and
viii. Other information as required by the Utilities Director or Hearing Examiner in consultation with other agencies of expertise.

7. An applicant may elect to meet the appropriate performance standards in lieu of preparing a Hydrogeologic Report if the Utilities Director or Hearing Examiner finds the performance standards provide adequate aquifer protection.

E. Monitoring and Reporting

1. The Utilities Director, Building and Planning Director, or the Hearing Examiner may require a monitoring program, request additional information, or conduct inspections as a condition of approval or at any time during the life of the project, to document compliance with permit conditions and to determine whether the project contributes to water quality degradation.

2. Monitoring shall be by a qualified individual as determined by the County, and shall be paid for by the applicant.

3. The Building and Planning Department shall periodically review monitoring programs to determine compliance with conditions of approval in cooperation with the Division of Utilities, Spokane Regional Health District, Spokane Aquifer Joint Board and other agencies responsible for aquifer protection.

4. For critical material users, the Hearing Examiner or the Building and Planning Director shall establish a periodic inspection program to determine compliance with permit requirements and the provisions of this section.