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SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington



CO00024692

AMENDED

Ordinance No. 92-018

INTERIM GROUNDWATER PROTECTION ORDINANCE;
AMENDING SNOHOMISH COUNTY CODE TITLE 32

~~WHEREAS, Snohomish County contains a valuable and vulnerable groundwater resource which is an important natural resource to be protected from indiscriminate loss; and~~

~~WHEREAS, Snohomish County government may adopt regulations (or requirements) for monitoring and protecting unincorporated areas of the county from significant adverse environmental impacts due to the use and development of land; and~~

WHEREAS, a significant portion of the county's population depends upon groundwater as its principal drinking water source, and groundwater plays a vital role in sustaining wetlands, instream flows and other ecological values; and

~~WHEREAS, a number of instances have occurred where property located within~~ DURING THE LAST FIVE YEARS the county has experienced HAD OVER 5000 OCCURRANCES of groundwater contamination and expensive remediation has been required; and

~~WHEREAS, Snohomish County has numerous regulations now in place including, but not limited to, its authority under the State Environmental Policy Act, Chapter 43.21C RCW (hereinafter "SEPA"), Motion No. 90-249, County Policy for Protection of Groundwater Resources, and Title 23 SCC, which will be used to protect the county's groundwater resource from being degraded and polluted to avoid significant adverse environmental impacts; and~~

WHEREAS, the State Growth Management Act of 1990, Chapter 36.70A.060 RCW, as amended, (hereinafter "GMA") requires Snohomish County to adopt interim development regulations that protect vulnerable groundwater from further degradation until the Groundwater Management Program and new County Comprehensive Plan are finalized and implemented; and

WHEREAS, the Planning Commission held a public meeting on October 22, 1991, and a public hearing on November 26, 1991, to discuss and consider testimony on a proposed interim groundwater protection ordinance intended to meet the requirements of the GMA; and

WHEREAS, the Planning Commission, on November 26, 1991, recommended that the interim protection measures incorporated in this ordinance be enacted; and

WHEREAS, the County Council held public hearings on March 11, 25, April 20 and 27, 1992, to consider the Planning Commission's recommendation;

NOW, THEREFORE, BE IT ORDAINED:

Section 1. A new Chapter 32.11 is added to Snohomish County Code Title 32 as follows:

Chapter 32.11
INTERIM GROUNDWATER PROTECTION REGULATIONS
AMENDING SNOHOMISH COUNTY CODE TITLE 32

Sections:

- 32.11.010 Review for groundwater impacts
- 32.11.020 Documentation and mitigation plan
- 32.11.030 Hydrologic site evaluation
- 32.11.040 Imposition of conditions on projects
- 32.11.050 Definitions
- 32.11.060 Applicability

32.11.010 Review for groundwater impacts. When environmental review is conducted by the county pursuant to Title 23 SCC as the lead agency under SEPA, all project actions, except single family building permits, will be evaluated to determine their impacts upon the groundwater resource. Regulations adopted under this chapter may not prohibit uses legally existing on any parcel prior to their adoption.

~~The project actions listed below will be required to submit, in addition to an environmental checklist, a hydrogeologic site evaluation and/or a best management practice program which adequately protects the groundwater resource. Project actions subject to the foregoing requirements are the following:~~

- (1) REGULATIONS ADOPTED UNDER THIS CHAPTER SHALL NOT PROHIBIT USES LEGALLY EXISTING ON ANY PARCEL PRIOR TO THEIR ADOPTION.
- (2) ONLY PROJECT ACTIONS UNDER SCC TITLE 23 WILL BE EVALUATED TO DETERMINE THEIR IMPACTS UPON THE GROUNDWATER RESOURCE, EXCEPT THAT SINGLE FAMILY BUILDING PERMITS ARE EXEMPT.
- (3) THE PROJECT ACTIONS LISTED BELOW WILL BE REQUIRED TO SUBMIT, IN ADDITION TO AN ENVIRONMENTAL CHECKLIST, A HYDROGEOLOGIC SITE EVALUATION AND/OR BEST MANAGEMENT PRACTICE PROGRAM WHICH ADEQUATELY PROTECTS THE GROUNDWATER RESOURCE.

THE FOLLOWING GROUNDWATER PROTECTION ADMINISTRATION GUIDANCE CHART SHALL DETERMINE HOW PROJECTS COMPLY WITH THIS CHAPTER:

GROUNDWATER ORDINANCE ADMINISTRATION GUIDANCE CHART

PROJECT	HYDROGEOLOGIC SITE EVALUATION	BEST MANAGEMENT PRACTICE
1. UNDERGROUND STORAGE TANKS (UST)		XX Proof of compliance w/DOE. License # of installer.
2. COMMERCIAL, INDUSTRIAL, INSTITUTIONAL FACILITIES WHICH USE HAZARDOUS SUBSTANCES		XX
3. LARGE ON-SITE SEWAGE SYSTEMS	Proof of compliance with DOE and/or DOH Criteria.	
4. PETROLEUM PIPELINES	XX	XX
5. SURFACE MINING WHICH NEEDS DNR PERMIT		XX
6. SOLID WASTE FACILITIES	XX	XX
7. LAND APPLICATION OF SEWAGE SLUDGE	XX Study determines ---->	XX application rate.
8. SALT WATER INTRUSION	DOE pump test if salt water intrusion is within 1 mile.	XX

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1. underground storage tanks as defined by WAC 173-360;
2. commercial, industrial, institutional or other facilities which store, use, handle, or produce hazardous substances or waste products (as defined by WAC 173-303-101);
- ~~3. on-site sewage disposal systems serving commercial or industrial development, or any single use generating sufficient effluent to require approval of its plans by the Department of Ecology under WAC 173-240;~~
3. ON-SITE SEWAGE DISPOSAL SYSTEMS SERVING LARGE DEVELOPMENT, OR ANY SINGLE USE, GENERATING SUFFICIENT EFFLUENT OVER 3500 GALLONS PER DAY, REQUIRE APPROVAL OF ITS PLANS BY THE DEPARTMENT OF HEALTH UNDER WAC 246.272 OR THE DEPARTMENT OF ECOLOGY UNDER WAC 173-240;
4. petroleum pipelines;
5. surface mining operations requiring a permit from the state Department of Natural Resources;
6. solid waste facilities;
7. land application of sewage sludge from sewage treatment works which combine industrial waste and commercial waste with domestic waste or any sewage sludge application exceeding two acres in size;
8. projects in known areas of contamination as evidenced by depletion of fresh water quality and quantity, i.e. salt water intrusion; and
- ~~9. commercial and recreational uses where repetitive pesticide and fertilizer applications are required, and where the application is not done by a state licensed applicator.~~

~~((Section 2.))~~ 32.11.020 Documentation and mitigation plan.

1. If the evaluation UNDER ~~conducted pursuant to ((section 2))~~ SCC 32.11.010 identifies significant impacts to critical aquifer recharge areas, the project applicant will be required to fully document potential impacts in ~~the submittal required by section 1~~ and provide a discussion of alternatives by which such impacts could be avoided or prevented.
2. The applicant shall provide a detailed ~~proposed~~ mitigation plan for any unavoidable potential impacts. The county may require that the mitigation plan include preventative measures, monitoring, process control and remediation, as appropriate. The mitigation plan must be approved by the county and be implemented as a condition of project approval.

~~((Section 3.))~~ 32.11.030 Hydrologic site evaluation. IF A hydrogeologic site evaluation prepared pursuant to the requirements of IS REQUIRED BY ~~((section 1))~~ SCC 32.11.010 THE EVALUATION shall address, ~~but not be limited to,~~ the following:

1. soil texture, permeability and contaminant attenuation properties;
2. characteristics of the ~~vadose zone~~ (the unsaturated top layer of soil (THE VADOSE ZONE) and geologic material) including permeability and attenuation properties;
3. depth to groundwater and/or impermeable soil layer;
4. aquifer properties such as hydraulic conductivity and gradients; and
5. ~~any other relevant factors.~~

The scope of the study shall be in direct relationship to the scope of the project.

~~((Section 4.))~~ 32.11.040 Imposition of conditions on projects. Based upon available information including that provided by the applicant pursuant to the requirements of ~~((section 1,))~~ SCC 32.11.010(2) AND (3), the Department of Planning and Community Development shall ~~have discretion to~~ impose conditions on projects designed to prevent degradation of groundwater quality or quantity. Such conditions may include determining background water quality and quantity prior to development, determining groundwater levels, monitoring of those levels, mitigation plans including prevention, and development of groundwater quality or quantity management plans. All conditions to permits shall be based on all known, available and reasonable methods of prevention, control, and treatment.

~~((Section 5.))~~ 32.11.050 Definitions. As used in this ~~((ordinance))~~ chapter, the terms listed in this section shall have the following definitions: ~~unless the context clearly indicates otherwise.~~

- (1) Aquifer - water bearing formation, bedrock, sand or gravel that yields usable supplies of water to wells.
- (2) Background Water Quality - ~~background water quality~~ means the concentrations of chemical, physical, biological, or radiological constituents, or other characteristics in or of groundwater at a particular point in time and upgradient of an activity that have not been affected by that activity.
- (3) Best Management Practice Program - a written plan outlining widely accepted practices, such as liquid containment, transfer practices and emergency procedures whose purpose is to prevent contamination from contaminant loaded uses, for instance monitoring and secondary containment for underground storage tanks.

- (4) Contaminant - a substance which, when distributed in the soil, renders the groundwater unpotable.
- (5) Groundwater - the portion of water contained in interconnected pores or fractures in a saturated zone or stratum located beneath the surface of the earth or below a surface water body.
- (6) Groundwater Management - the management and coordination of groundwater regulations, strategies, policies and technical information for the protection and use of groundwater resources.
- (7) Hydrogeologic Site Evaluation - an evaluation which encompasses some or all of the following checklist of items. It shall be prepared by a professional who has training and experience in hydrogeology:
 - a. Hydrogeologic Setting
 - 1) Describe the geologic setting of the site and illustrate with geologic and soil maps.
 - 2) Generally describe the lithology, stratigraphy, and areal distribution of soil and rock material in the area.
 - 3) Discuss geologic features which may control groundwater movement such as faults, folds, joint patterns, igneous intrusions, etc.
 - 4) Describe the occurrence and movement of groundwater in the area. Generally discuss such topics as recharge and discharge, depth to groundwater, and regional groundwater flow patterns. Illustrative material such as water level maps or flow nets are recommended.
 - 5) Generally discuss groundwater quality trends, natural and human-induced, including discussion of cumulative changes over an area.
 - b. Water Quality Goals and Standards
 - 1) Describe the water quality goals, standards and related measures associated with the aquifer(s) underlying the site, and for nearby surface waters.
 - 2) Discuss how water quality goals, standards and related measures apply to contaminants from the site.
 - c. Site-specific Hydrogeology
 - 1) Depict on an appropriately scaled map the location of well(s) (whether abandoned or active) and springs within 1,000 feet of the site, or within a five year time of travel (whichever is greater).

- 2) Prepare hydrogeological cross-sections through the site and surrounding area which illustrate available borehole and trench information. Include references of other information used to prepare the cross-sections.
 - 3) Describe the nature of groundwater movement beneath the site. This description should consider the following:
 - a) areal distribution, stratification, and hydraulic conductivity of saturated and unsaturated earth materials
 - b) probable migration pathways for wastewater released to the septic drainfields
 - c) an estimate of probable time of travel through the soil horizontally from a potential contaminant source
 - 4) Describe how the contaminants of concern will be attenuated within the unsaturated zone.
 - 5) Estimate the quantity and quality of water recharged to the saturated zone under anticipated operation.
 - 6) Describe the contaminant attenuation processes anticipated within any saturated zone upon which an estimate is based.
 - 7) Devise a system for monitoring groundwater quality. Describe what steps will be taken if monitoring results show considerably higher levels of contaminants than predicted.
- (8) Hydrogeology - the study of groundwater -- its origin, occurrence, movement and quality.
- (9) Interim Development Regulations - regulations required by the Growth Management Act, as amended, to protect critical areas, including areas with a critical recharging effect on aquifers used for potable water until 1994 when permanent protection measures will be put in place.
- (10) Potable Water - water suitable for drinking.
- (11) Remediation - the cleanup and restoration of groundwater to some acceptable level. ~~Frequently, groundwater cannot technically be restored to its previous beneficial level or use.~~
- (12) Requirements (Water Quality) - a set of predetermined distances (setbacks), design criteria and materials, and other groundwater protection measures such as disallowing the use of drywells, etc.
- (13) Sole Source Aquifer - an area so designated by the Environmental Protection Agency.

- (14) Standards (Groundwater) - Standards established by EPA regulations and/or State of Washington regulations, which are represented by health based numbers such as the maximum contaminant levels (MCL).
- (15) Surface Water - waters that flow over the land surface and frequently interact with groundwater.
- (16) Vulnerability - the degree to which groundwater may become contaminated depending on the local hydrogeologic characteristics and amounts of potential groundwater contaminant present.
- (17) Wellhead Protection Area - the surface and subsurface area surrounding a well or wellfield that supplies a public water system through which contaminants are likely to pass and eventually reach the water well or wellfield.

32.11.060 Applicability. For purposes of environmental review pursuant to the State Environmental Policy Act, RCW 43.21C, and the Snohomish County environmental policy ordinance, Title 23, SCC, this chapter shall apply to all proposed project actions for which a complete application is received on or after June 1, 1992.

Section ((6))2. Effective Date. This ordinance shall be effective on June 1, 1992.

Section ((7))3. Repealer. This ordinance is hereby repealed on July 1, 1994, unless amended or reenacted prior to that date.

DATED this 27th day of April, 1992

SNOHOMISH COUNTY COUNCIL
Snohomish County, Washington

Liz McLaughlin
Chairperson

Approved as to Form Only:

Deputy Prosecuting Attorney

DATE: 5/7/92

(Date)

[Signature]
County Executive

ATTEST:

Sheila McCallister
Clerk of the Council

- APPROVED
- VETOED
- EMERGENCY

PUBLISHED _____ AND _____.