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CLARK COUNTY
WASHINGTON

STAFF REPORT

TO: Clark County Planning Commission
FROM: Oliver Orjiako, Director, Community Planning
PREPARED BY: Gary Albrecht, Planner III
DATE: November 16, 2017
SUBJECT: CPZ2017-00025 Critical Areas Update

BACKGROUND

This is a proposal to amend two critical areas ordinances, Clark County Code (CCC) CCC Chapter 40.410 (CARA) and CCC Chapter 40.420 (FLOOD HAZARD AREAS).

Chapter 40.410 is a procedural update. This update is a GMA requirement as a periodic review.

Chapter 40.420 update is required by the Federal Emergency Management Agency (FEMA) since they have updated the Flood Insurance Rate Map (FIRM) for the Washougal River. On April 20, 2016, FEMA with Clark County Public Works held an open house to discuss The Lower Columbia-Sandy HUC-8 Watershed Flood Study. Clark County Public Works posted a news release in the Columbian Newspaper and on their Public Works webpage. <https://www.clark.wa.gov/public-works/preliminary-washougal-flood-maps> Public works also sent over 4,500 notifications to property owners impacted by these map revisions. No appeals were submitted in response to these revised maps. Officially, Clark County has until January 19, 2018 to adopt these updated FIRM panels.

Commerce 60-day notification submitted on October 18, 2017. SEPA published on October 31, 2017. Comment period ends on November 16, 2017. DEAB reviewed these changes on November 2, 2017.

PROPOSED ACTION

CPZ2017-00025_Critical Areas Update. **Proposed** draft amendment (Exhibit 1) to update Clark County Code (CCC) 40.410 Critical Aquifer Recharge Areas (CARAs) is a procedural update. **Proposed** draft amendment (Exhibit 2) adds best available science to Clark County Code 40.420 Flood Hazard Areas adopting the Federal Emergency Management Agency (FEMA) Flood Insurance Study that produced an updated Flood Insurance Rate Map (FIRM) for the Washougal River that becomes effective January 19, 2018.

NEXT STEPS

Clark County Board of County Councilors will hold a hearing on January 9, 2018 to discuss these proposed changes.

1 Subtitle 40.4

2 CRITICAL AREAS AND SHORELINES

3 **40.410 CRITICAL AQUIFER RECHARGE AREAS (CARAs)**

4

5 **40.410.010 Introduction**

6

7 A. Purpose.

8 This chapter is intended to protect public health, safety, and welfare by preventing
9 degradation, and where possible, enhance the quality and quantity of groundwater which
10 will be, or might likely be, used in the future for drinking water or business purposes. This
11 will be accomplished by limiting potential contaminants within designated critical aquifer
12 recharge areas (CARAs). The requirements of this chapter are intended to fulfill
13 obligations of state law under the Growth Management Act, Chapter 36.70A RCW; the
14 Public Water Systems Penalties and Compliance, Chapter 70.119A RCW; the
15 Washington State Wellhead Protection Program and the Public Water Supplies, Chapter
16 246-290 WAC; the Dangerous Waste Regulations, Chapter 173-303 WAC; the Water
17 Quality Standards for Groundwater of the State of Washington, Chapter 173-200 WAC;
18 the Underground Injection Control Program, Chapter 173-218; and the Regulation of
19 Public Ground Waters, Chapter 90.48 RCW.

20 (Amended: Ord. 2005-04-15)

21 B. Applicability and Exemptions.

- 22 1. Applicability. This chapter applies to all critical aquifer recharge areas as defined
23 in Section 40.410.010(C). Parcels that are partly within Category I and Category II
24 shall be subject to the Category I provisions in this chapter. Parcels that are partly
25 inside Category II, but outside Category I, shall be subject to the Category II
26 provisions in this chapter.
- 27 2. Exempt Activities. The following activities do not require a CARA permit:
- 28 a. Existing activities that currently and legally existed on July 31, 1997;
 - 29 b. All residential uses other than those having activities covered by Section
30 40.410.020(A);
 - 31 c. Group A public water system source development and associated infrastructure;
 - 32 d. Public water supply aquifer storage and recovery (ASR) facilities;
 - 33 e. Public water pipelines;
 - 34 f. Public water supply storage structures;
 - 35 g. Other uses not listed in Sections 40.410.020(A), (B) or (C); and
 - 36 h. Activities already permitted and regulated by the state and the Clark County
37 Health Department to incorporate best management practices.
- 38 3. The following underground storage tank (UST) systems, including any piping
39 connected thereto, are exempt from the requirements of this chapter:
- 40 a. Any UST system holding hazardous wastes subject to Subtitle C of the Federal
41 Solid Waste Disposal Act, or a mixture of such hazardous waste and other
42 regulated substances;
 - 43 b. Any wastewater treatment tank system that is part of a wastewater treatment
44 facility regulated under Section 402 or 307(b) of the Clean Water Act;

- 1 c. Equipment or machinery that contains regulated substances for operational
- 2 purposes such as hydraulic lift tanks and electrical equipment tanks;
- 3 d. Any UST system whose capacity is one hundred ten (110) gallons or less;
- 4 e. Any UST system that contains a de minimis concentration of regulated
- 5 substances;
- 6 f. Any emergency spill or overflow containment UST system that is expeditiously
- 7 emptied after use;
- 8 g. Farm or residential UST systems of one thousand one hundred (1,100) gallons
- 9 or less capacity used for storing motor fuel for noncommercial purposes (i.e.,
- 10 not for resale);
- 11 h. UST systems used for storing heating oil for consumptive use on the premises
- 12 where stored; except that such systems which store in excess of one thousand
- 13 one hundred (1,100) gallons are subject to the release reporting requirements
- 14 of WAC 173-360-372;
- 15 i. Septic tanks;
- 16 j. Any pipeline facility (including gathering lines) regulated under:
- 17 (1) The Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. App. 1671, et seq.),
- 18 or
- 19 (2) The Hazardous Liquid Pipeline Safety Act of 1979 (49 U.S.C. App. 2001, et
- 20 seq.), or
- 21 (3) Which is an intrastate pipeline facility regulated under state laws
- 22 comparable to the provisions of the law referred to in Section
- 23 40.410.010(B)(3)(j)(1) or (2) of this definition;
- 24 k. Surface impoundments, pits, ponds, or lagoons;
- 25 l. Stormwater or wastewater collection systems;
- 26 m. Flow-through process tanks;
- 27 n. Liquid traps or associated gathering lines directly related to oil or gas
- 28 production and gathering operations; or
- 29 o. Storage tanks situated in an underground area (such as a basement, cellar,
- 30 vault, mineworking drift, shaft, or tunnel) if the storage tank is situated upon or
- 31 above the surface of the floor.

32 (Amended: Ord. 2005-04-15)

33
 34 C. Definitions.

35 For the purposes of this chapter, the following definitions shall apply:

36
 37

1- Category I CARA	"Category I CARA" means the highest priority critical aquifer recharge area, represented by the one-year time-of-travel for Group A water wells.
2- Category II CARA	"Category II CARA" means the primary critical aquifer recharge area, represented by the ten (10) year time-of-travel for Group A water wells. This area also consists of the unconsolidated sedimentary aquifer and the Troutdale gravel aquifer.

1 (Amended: Ord. 2005-04-15)

2
3 D. Map.

4 The map entitled Clark County, Washington Critical Aquifer Recharge Areas ~~as signed by~~
5 ~~the board~~ is adopted in the 20 Year Clark County Comprehensive Growth Management
6 Plan as best available science, and is on file with the County Auditor. If a conflict exists
7 between the map and on-site conditions, the on-site conditions shall supersede the map.
8 The county will update the CARA map as warranted by new information. GIS Map Store
9 produces maps for free in the following link. [Critical Areas Ordinances Maps](#)

10 (Amended: Ord. 2005-04-15; Ord. 2009-03-02)

11
12 **40.410.020 Standards**

13
14 A. ~~Permitted~~ Activities requiring a CARA permit in Categories I and II, include the
15 following:

16 ~~The following activities require a CARA permit in both Categories I and II:~~

- 17 1. Above- and below-ground storage tanks (tanks and pipes used to contain an
- 18 accumulation of regulated substances (see Section 40.100.070);
- 19 2. Facilities that conduct biological research;
- 20 3. Boat repair shops;
- 21 4. Chemical research facilities;
- 22 5. Dry cleaners;
- 23 6. Gasoline service stations;
- 24 7. Pipelines;
- 25 8. Printing and publishing shops (that use printing liquids);
- 26 9. Below-ground transformers and capacitors;
- 27 10. Sawmills (producing over ten thousand (10,000) board feet per day);
- 28 11. Solid waste handling and processing;
- 29 12. Vehicle repair, recycling, and recyclable materials – automotive;
- 30 13. Funeral services;
- 31 14. Furniture stripping;
- 32 15. Motor vehicle service garages (both private and government);
- 33 16. Photographic processing;
- 34 17. Chemical manufactures and reprocessing;
- 35 18. Creosote and asphalt manufacture and treatment;
- 36 19. Petroleum and petroleum products refining, including reprocessing;
- 37 20. Wood products preserving;
- 38 21. Golf course;
- 39 22. Regulated waste treatment, storage, disposal facilities that handle hazardous
- 40 material;
- 41 23. Medium quantity generators (dangerous, acutely hazardous, and toxic extremely
- 42 hazardous waste); and
- 43 24. Large quantity generators (dangerous, acutely hazardous, and toxic extremely
- 44 hazardous waste).

45 (Amended: Ord. 2005-04-15)

1
2 B. Prohibited Activities in Category I.

3 The following activities are considered high-impact uses due to the probability and/or
4 potential magnitude of their adverse effects on groundwater. These activities are
5 prohibited in Category I, and require a permit for Category II:

- 6 1. Landfills;
7 2. Class V injection wells;
8 3. Agricultural drainage wells;
9 4. Untreated sewage waste disposal wells;
10 5. Cesspools;
11 6. Industrial process water and disposal wells;
12 7. Radioactive waste disposal;
13 8. Radioactive disposal sites;
14 9. Surface mining operations; and
15 10. Electroplating activities.

16 (Amended: Ord. 2005-04-15)

17
18 C. Additional Standards.

19 The following additional standards apply in all CARAs:

- 20 1. Pesticides, herbicides and fertilizers shall be applied in accordance with federal
21 law.
22 2. Vehicle repair and servicing.
23 a. Vehicle repair and servicing must be conducted over impermeable pads and
24 within a covered structure capable of withstanding normally expected weather
25 conditions. Chemicals used in the process of vehicle repair and servicing must
26 be stored in a manner that protects them from weather and provides
27 containment if leaks occur.
28 b. No dry wells shall be allowed in CARAs on sites for vehicle repair and
29 servicing. Dry wells on the site prior to the facility establishment must be
30 abandoned using techniques approved by the Department of Ecology prior to
31 commencement of the proposed facility.

32 (Amended: Ord. 2004-06-11; Ord. 2005-04-15)

33
34 **40.410.030 Administration**

35
36 A. CARA Permit Requirements.

- 37 1. To receive a CARA permit required by section 40.410.020, the applicant must
38 demonstrate, through a Level 1 site evaluation report, how they will integrate
39 necessary and appropriate best management practices (BMPs) to prevent
40 degradation of groundwater. The applicant must also meet existing local, state,
41 and federal laws and regulations.
42 2. If an applicant wants to avoid implementation of ~~best management~~
43 ~~practices (BMPs) the standard~~, they must submit a Level 2 site evaluation report
44 and develop and implement a monitoring program that:

- 1 a. Demonstrates how the applicant will prevent degradation to groundwater. The
2 applicant must also meet existing local, state and federal laws and regulation;
3 and
- 4 b. Includes quarterly reporting to the department. The department will evaluate
5 the monitoring program and may require periodic changes based on the
6 monitoring results, new technology, and/or BMPs.
- 7 3. Applicants that agree to implement all relevant BMPs are exempt from preparing a
8 site evaluation report. Applicants will demonstrate how the implementation of
9 BMPs will be used to prevent degradation to groundwater and will submit quarterly
10 monitoring reports to the department.

11 (Amended: Ord. 2005-04-15)

12
13 B. Level 1 Site Evaluation Report/Approval Criteria.

- 14 1. For all proposed activities to be located in a critical aquifer recharge area, the
15 site evaluation report shall include a Level 1 hydrogeological assessment by an
16 engineer as defined in Section 40.386.010. ~~The site evaluation report and~~
17 ~~assessment shall be done by, or under the direction of, and signed by a~~
18 ~~qualified groundwater professional who is a hydrogeologist, geologist or~~
19 ~~engineer, who is licensed in the state of Washington and who has experience~~
20 ~~in preparing hydrogeologic assessments.~~ The report will identify appropriate
21 BMPs and show how they will prevent degradation of groundwater. Examples
22 of pollution source controls BMPs are described in the guidance documents in
23 Section 40.410.040(A)(4). Clark County Stormwater Manual, and WAC
24 173-218, Underground Injection Control Program.
- 25 2. The report will identify how the applicant will follow the requirements of RCW
26 90.48 (Water Pollution Control), RCW 70.105D ~~the~~ (Model Toxics Control Act),
27 Chapter 173-340 WAC, and the Dangerous Waste Regulations, Chapter
28 173-303 WAC, in the event hazardous material is released onto the ground or
29 into groundwater.
- 30 3. ~~The report will include site specific hydrogeologic information to support a~~
31 ~~conclusion of no degradation to groundwater. Hydrogeologic information is~~
32 ~~available from existing U.S. Geological Survey reports (A Description of~~
33 ~~Hydrogeologic Units in the Portland Basin, Oregon and Washington,~~
34 ~~Water Resources Investigation Report 90-4196); U.S. Department of~~
35 ~~Agriculture, Natural Resources Conservation Service (Soil Survey of Clark~~
36 ~~County, Washington, 1972); Clark County; the Clark County Health~~
37 ~~Department; and from local purveyors.~~
- 38 3. 4. The report will be reviewed by the department, in consultation with the Clark
39 County Health Department and the local water purveyor, in conjunction with the
40 same process as the primary development permit. If approved, the applicant
41 will receive a CARA permit allowing the activity on the subject property.

42 (Amended: Ord. 2005-04-15)

43
44 C. Level 2 Site Evaluation Report/Approval Criteria.

- 45 1. A qualified groundwater professional as defined in Section ~~40.420.030(B)(1)~~
46 40.100.070 will determine whether the proposed activity will have any adverse

1 impacts on groundwater in CARAs. This determination must be based upon the
2 requirements of the Safe Drinking Water Act and the Wellhead Protection Area
3 Program, Public Water Supplies, Chapter 246-290 WAC; Groundwater Quality
4 Standards for the State of Washington, Chapter 173-200 WAC; and Dangerous
5 Waste Regulations, Chapter 173-303 WAC. By this reference, Chapters 173-200,
6 173-303, Chapter 173-218 WAC, and 246-290 WAC, as written and hereafter
7 updated, will be part of this chapter. ~~Chapters 173-303, 173-200, and 246-290~~
8 ~~WAC shall be available for review at the Community Development department,~~
9 ~~Public Works department, and Health department; and at local water purveyors.~~
10 ~~Copies shall be available for a fee at Community Development department and the~~
11 ~~Public Works department. Copies will also be provided to local public libraries.~~

- 12 2. The Level 2 site evaluation report will include the following:
- 13 a. Identification of the proposed development plan, along with potential impacts
14 (e.g., on-site septic systems and other on-site activities) that may adversely
15 impact groundwater quality underlying or down gradient of the project or project
16 area;
 - 17 b. Site plans or diagrams at an appropriate scale (1:2,400 or one (1) inch to two
18 hundred (200) feet) showing the location of abandoned and active wells,
19 springs, and surface water bodies within one thousand (1,000) feet of the
20 project or project area; and
 - 21 c. A description of the geologic and hydrologic characteristics of the subject
22 property including the following:
 - 23 (1) Lithologic characteristics and stratigraphic relationships;
 - 24 (2) Aquifer characteristics including recharge and discharge areas, depth to
25 and static water-flow patterns, and an estimate of groundwater-flow
26 velocity;
 - 27 (3) Contaminant fate and transport including probable migration pathways and
28 travel time of a potential contaminant release from the site through the
29 unsaturated zone to the aquifer(s) and through the aquifer(s), and how the
30 contaminant(s) may be attenuated within the unsaturated zone and the
31 aquifer(s);
 - 32 (4) Appropriate hydrogeologic cross-sections which depict lithology,
33 stratigraphy, aquifer, units, potential or probable contaminant pathways
34 from a chemical release, and rate of groundwater flow;
 - 35 (5) Existing groundwater quality; and
 - 36 (6) A proposal for quarterly monitoring of groundwater quality to detect
37 changes and a description of corrective actions that will be taken if
38 monitoring results indicate contaminants from the site have entered the
39 underlying aquifer(s).
- 40 3. The report will be reviewed by the department, in consultation with the Clark
41 County Health Department and the local water purveyor, in conjunction with the
42 same process as the primary development permit. If approved, the applicant will
43 receive a CARA permit allowing the activity on the subject property.

44 (Amended: Ord. 2005-04-15)

45
46 D. Appeals.

1 Appeals of county decisions under this chapter may be filed under the provisions of
2 Chapter 40.510.

3 (Amended: Ord. 2005-04-15)
4

5 E. Penalties.

6 Any person, firm, or corporation who violates, disobeys, omits, neglects, or refuses to
7 comply with any of the provisions of this chapter shall be subject to penalties as
8 defined in Chapter 70.119A RCW; Chapters 173-200 and 246-290 WAC; Title 32 of
9 this code; and other local, state, and federal laws.

10 (Amended: Ord. 2005-04-15)
11

12 **40.410.040 Incentives, Education, and Technical Assistance**

13 A. Incentives .

14 1. ~~Best Management Practices (BMPs). Individuals who implement BMPs to~~
15 ~~safeguard groundwater may not be required to provide additional geologic and~~
16 ~~hydrologic characteristics of the subject property, pursuant to Sections 40.410.030(B)~~
17 ~~and (C). Individuals shall implement the Washington Department of Ecology's~~
18 ~~Stormwater, Water Quality, Hazardous Waste, Wetland, and Solid Waste Programs~~
19 ~~BMPs; Chapter 13.26A; and BMPs from the Washington Departments of Health,~~
20 ~~Agriculture, Transportation, and State Conservation District Office.~~

21 2. ~~Maintain Open Spaces. An individual may receive a tax reduction for not~~
22 ~~creating impervious surface within Category I. Open space may allow recharge to~~
23 ~~replenish the groundwater supply.~~

24 3. ~~Land Exchange. The purpose of land exchange is to locate high-use impacts~~
25 ~~outside Category I. State agencies and local government may convey, sell, lease, or~~
26 ~~trade existing public lands in order to obtain public ownership over all or part of a~~
27 ~~CARA. Such exchanges may occur only upon agreement between the recorded~~
28 ~~landowner and state and local agencies authorized to exchange the subject land.~~

29 (~~Amended: Ord. 2005-04-15; Ord. 2009-03-02~~)

30 B. ~~Education.~~

31 1. ~~Participation in the County's Business Partners for Clean Water Program. This~~
32 ~~program provides public recognition to businesses that implement BMPs, such as~~
33 ~~safely handling and disposing of chemicals in a CARA.~~

34 2. ~~Provide Free Information (Pamphlets, Fast Facts) to Building Permit Applicants~~
35 ~~About How to Protect Groundwater Inside a CARA. Applicants seeking additional~~
36 ~~information about water quality and resource management issues will be placed on~~
37 ~~the department's mailing list. In addition, owners will be notified if they are in Category~~
38 ~~I and will be placed on the department's mailing list to receive groundwater protection~~
39 ~~newsletters, fact sheets, and pamphlets.~~

40 (~~Amended: Ord. 2005-04-15~~)

41 C. ~~Technical Assistance.~~

42 ~~To assist applicants in locating existing Group A and Group B public water supply~~
43 ~~wells in CARAs, the Clark County Health Department will provide a list of the physical~~
44 ~~location of all Group A and Group B public water supply wells in CARAs. A record of~~
45 ~~these wells will be available for review at the Clark County Health Department. Copies~~
46 ~~of the current Group A and Group B public water supply wells records may be~~

- 1 ~~purchased from the Clark County Health Department or Community Development~~
- 2 ~~department.~~
- 3 (Amended: Ord. 2005-04-15)

40.420 FLOOD HAZARD AREAS

40.420.010 Introduction

D. Flood Insurance Study and Maps.

1. The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in a report entitled "Flood Insurance Study, Clark County, Washington and Incorporated Areas" (FIS), effective ~~September 5, 2012~~ January 19, 2018, and accompanying Flood Insurance Rate Maps (FIRMs) and any revisions thereto are hereby adopted by reference. The FIS and the FIRMs are on file with the Public Works Department.

2. For the FIS and the FIRMs, the vertical datum was converted from the National Geodetic Vertical Datum of 1929 (NGVD29) to the North American Vertical Datum of 1988 (NAVD88). In addition, the Transverse Mercator, State Plane coordinates, previously referenced to the North American Datum of 1927 (NAD27), are now referenced to the North American Datum of 1983 (NAD83).

3. The best available information for flood hazard area identification as outlined in Section 40.420.030(D)(6)(c) shall be the basis for regulation until new information is incorporated into the FIRMs.

(Added: Ord. 2012-07-15)
