

August 4, 1994

Introduced by: LARRY PHILLIPS

Proposed No.: 94 - 502

ORDINANCE NO. **11481**

AN ORDINANCE relating to the protection of critical aquifer recharge areas pursuant to RCW 36.70A.

FINDINGS:

1. The Growth Management Act (the GMA), RCW 36.70A.170 and RCW 36.70A.060, requires each county and city to designate critical areas and to adopt development regulations that protect them. In accordance with RCW 36.70A.030, critical areas include areas with a critical recharging effect on aquifers used for potable water. These areas are further defined in WAC 365-190-030(2) as areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water.
2. On January 27, 1992, the King County council adopted Motion 8496 which recited the fact that King County had previously designated critical areas and natural resource lands and had previously adopted regulations for protection of critical areas and conservation of resource lands as required by the GMA. No new regulations were adopted with the passage of Motion 8496.

The adequacy of King County's designation and protection of critical areas, particularly aquifer recharge areas, was challenged before the Central Puget Sound Growth Management Hearings Board (the Board). On April 22, 1994, the Board upheld the validity of King County's designation and protection of all critical areas, with the exception of critical aquifer recharge areas. (Case number 94-3-0003)

4. On May 18, 1994, the Board ordered King County to designate aquifer recharge areas and adopt development regulations to protect these areas, by ordinance following a public hearing, on or before September 16, 1994.
5. Adoption of this ordinance will constitute the county's actions to comply with the ruling of the Board and the requirements of the GMA.
6. Subsequent to the adoption of Motion 8496, the county prepared a map of critical aquifer recharge areas for the Executive Proposed Comprehensive Plan (the Plan). The map entitled Areas Highly Susceptible to Ground Water Contamination, which map is included in the Plan, shows areas in the county most susceptible to ground water contamination, based on a combination of geologic characteristics and information on depth to ground water.
7. The Department of Ecology has identified five ground water management areas in King County: Issaquah Creek Valley, Redmond-Bear Creek Valley, Vashon/Maury Island, South King County, and East King County (WAC 173-100). King County

1 is the lead agency for coordinating the activities of
2 local governments, agencies, and citizens to develop a
3 ground water management program for each area. These
4 programs will provide a description of the ground water
5 resources in the area, identify threats to long-term
6 ground water quantity and quality, and provide management
7 strategies to enhance and protect the ground water
8 resource. The draft programs for Issaquah Creek Valley,
9 Redmond-Bear Creek Valley, Vashon/Maury Island, and South
10 King County are expected to be released for review in
11 1994. The program for East King County is expected to be
12 released in 1995.

- 13
14 8. Public water supplies, serving more than 25 people or 15
15 connections and using ground water as their source, are
16 required to prepare a wellhead protection program in
17 accordance with the federal Safe Drinking Water Act
18 pursuant to the Wellhead Protection Program (WAC 246-290)
19 developed by the state Department of Health. An effective
20 wellhead program will help prevent contamination of ground
21 water used for drinking water. The program will identify
22 management zones around public wells or wellfields to
23 detect and manage potential sources of ground water
24 contamination. The wellhead protection programs are
25 required to be an element of the water purveyor's
26 comprehensive water system plan.
- 27
28 9. The Surface Water Design Manual (the Manual), developed
29 pursuant to K.C.C. Title 9, contains the requirements and
30 standards for designing surface and storm water management
31 systems in King County. These measures help protect the
32 quality of ground water by treating much of the runoff
33 associated with development before it soaks through the
34 soils to replenish ground water. The Manual also
35 encourages infiltration of surface water runoff to
36 supplement the natural recharge of ground water diminished
37 by the creation of impervious surfaces incident to
38 development. The Manual applies these controls to
39 projects that add more than 5,000 square feet of new
40 impervious surface or that contain, or are adjacent to, a
41 floodplain, stream, lake, wetland or closed depression, or
42 a sensitive area as defined by the Sensitive Areas
43 Ordinance (K.C.C. 21.54). An update of the Manual is
44 currently in progress and is expected to be effective in
45 late 1994 or early 1995. The updated Manual will require
46 improved treatment and require more infiltration of water
47 within critical aquifer recharge areas as defined and
48 mapped by this ordinance in order to improve recharge
49 while reducing susceptibility to ground water
50 contamination.
- 51
52 10. The water pollution chapter of the King County Code,
53 K.C.C. 8.12, protects surface and ground water quality by
54 keeping surface water runoff from coming into contact with
55 contaminants.
- 56
57 11. The King County council acting as the King County Board of
58 Health is responsible for addressing issues affecting
59 public health. The Code of the King County Board of
60 Health contains regulations governing solid waste
61 disposal, public water systems, and on-site sewage

1 disposal systems. These regulations directly protect
2 ground water and critical aquifer recharge areas.

- 3
4 12. The Code of the King County Board of Health Title 10, King
5 County Solid Waste Regulations, regulates the design,
6 installation, operation and closure of solid waste
7 disposal facilities in King County. Title 10 protects
8 ground water by requiring that a landfill not contaminate
9 ground water underlying the landfill; by requiring liners
10 underneath a landfill; by regulating the distance between
11 the bottom of a landfill and ground water; by requiring
12 ground water monitoring and protection in conjunction with
13 landfills; and by controlling the materials allowed in a
14 landfill.
- 15
16 13. The Code of the King County Board of Health Title 12, King
17 County Public Water System Rules and Regulations,
18 regulates the design, installation and operation of small
19 public water systems. Title 12 protects ground water by
20 requiring that well installations meet state standards; by
21 requiring regular monitoring of water quality to ensure
22 that the water is not contaminated; and by requiring
23 regular evaluation to ensure that activities around the
24 water system do not impact ground water.
- 25
26 14. The Code of the King County Board of Health Title 13, On-
27 Site Sewage Disposal Systems, regulates the design,
28 installation and operation of on-site sewage disposal
29 systems. Title 13 protects ground water by regulating the
30 separation of the on-site system from ground water to
31 ensure that the effluent is treated before reaching ground
32 water, by regulating the daily amount of effluent in a
33 system to prevent overloading of the soil, by monitoring
34 complex and experimental systems to ensure they function
35 properly, and by requiring types of systems suitable for
36 the soil type and lot size to ensure proper treatment.
- 37
38 15. The King County Sensitive Areas Ordinance (SAO), K.C.C.
39 21.54 and K.C.C. 21A.24, is not specifically designed to
40 satisfy GMA requirements for aquifer recharge areas
41 designation and protection; however, the SAO does have
42 regulations, such as wetland protection and sensitive
43 areas buffer requirements, that benefit ground water.
44 Some wetlands, in particular Class III wetlands, commonly
45 function as recharge areas where water soaks into the
46 soils, replenishing ground water supplies. The SAO
47 contains regulations that protect the quality of water in
48 wetlands and streams, reducing the risk of ground water
49 contamination. Sensitive areas buffers require the
50 retention of vegetation that serve to maintain the natural
51 infiltration capability of the soils by enabling water to
52 soak in and replenish ground water supplies.
- 53
54 16. Portions of the King County Code contribute to the
55 protection of ground water by setting standards for
56 retention of vegetation and alteration of the land.
57 Landscape requirements in K.C.C. 21.51 and K.C.C. 21A.16,
58 grading requirements in K.C.C. 16.82, and mineral
59 extraction standards in K.C.C. 21.42 and 21A.22 serve to
60 protect ground water.
- 61

- 1 17. King County community plans and associated area zoning
2 carry-out the policies of the King County Comprehensive
3 Plan by addressing land use issues specific to a
4 geographic area. The following recently adopted community
5 plans contain policies and zoning conditions to protect
6 ground water by restricting the amount of clearing on a
7 site: Bear Creek, Northshore, Soos Creek, Tahoma/Raven
8 Heights, and East Sammamish. Trees and other vegetation
9 maintain the natural infiltration capability of the soils
10 which allows water to soak in and replenish the ground
11 water supplies.
12
- 13 18. The State Environmental Policy Act is a tool available to
14 King County to identify some significant impacts to ground
15 water and to impose reasonable mitigation measures to
16 protect ground water. King County will consider revising
17 the environmental checklist to better evaluate a
18 proposal's impact to ground water.
19
- 20 19. In addition to King County regulations, existing
21 regulations of other agencies contribute to the protection
22 of ground water in the county. The Environmental
23 Protection Agency and the State Department of Ecology
24 regulate underground storage tanks, hazardous waste
25 management and hazardous waste contamination sites. The
26 King County Fire Marshall sets standards for the storage,
27 handling and use of hazardous materials. The Uniform Fire
28 Code, adopted as the Fire Code of King County in K.C.C.
29 17.04.010, prohibits the release of hazardous materials to
30 sewers, storm drains, surface water or ground water except
31 under appropriate agency permit.
32
- 33 20. Two areas in King County, the Lower Cedar Valley and
34 Vashon Island, have been designated as sole source
35 aquifers by the Environmental Protection Agency in
36 accordance with the federal Safe Drinking Water Act. This
37 designation prevents projects receiving any federal funds
38 from contaminating the aquifer. The map entitled Sole
39 Source Aquifers identifies these areas in unincorporated
40 King County.
41
- 42 21. The designations and regulations of critical aquifer
43 recharge areas are to be further evaluated in conjunction
44 with the adoption of the King County Comprehensive Plan.
45 King County anticipates refining critical aquifer recharge
46 area protection measures, as appropriate, once the ground
47 water management programs are adopted by King County and
48 certified by the Department of Ecology. King County will
49 also review wellhead protection programs prepared by water
50 purveyors, and as appropriate, refine critical aquifer
51 recharge area protection measures to implement program
52 recommendations.
53
- 54 22. The King County department of development and
55 environmental services issued a determination of
56 nonsignificance for this ordinance in accordance with the
57 State Environmental Policy Act.
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Council amended 9/12/94

1 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

2 SECTION 1. Critical Aquifer Recharge Areas means areas
3 that have been identified as sole source aquifers, areas that
4 have a high susceptibility to ground water contamination, or
5 areas that have been approved pursuant to WAC 246-290 as
6 wellhead protection areas for municipal or district drinking
7 water systems. Areas with high susceptibility to ground water
8 contamination occur where aquifers are used for drinking water
9 and there is a combination of permeable soils, permeable
10 subsurface geology, and ground water close to the ground
11 surface.

12 SECTION 2. The map entitled Areas Highly Susceptible to
13 Ground Water Contamination, attached as Exhibit A, and the map
14 entitled Sole Source Aquifers, attached as Exhibit B, are
15 hereby adopted as the designation of critical aquifer recharge
16 areas in King County pursuant to RCW 36.70A.170.

17 SECTION 3. In order to protect critical aquifer recharge
18 areas, K.C.C. Chapter 9.04 is hereby adopted in accordance
19 with RCW 36.70A.060.

20
21 SECTION 4. The following Titles of the Code of King
22 County Board of Health are hereby adopted in accordance with
23 RCW 36.70A.060 to protect critical aquifer recharge areas:
24 Title 10 "King County Solid Waste Regulations", Title 12 "King
25 County Public Water System Rules and Regulations", and Title 13
26 "On-Site Sewage Disposal Systems."

27 SECTION 5. The following elements of the King County Code
28 are hereby adopted in accordance with RCW 36.70A.060 to protect
29 critical aquifer recharge areas: K.C.C. 8.12, K.C.C. 16.82,

1 K.C.C. 17.04.01, K.C.C. 21.42, K.C.C. 21.51, K.C.C. 21A.16, and
2 K.C.C. 21A.22.

3 SECTION 6. The clearing restrictions in the area zoning
4 in the following community planning areas, as such zoning
5 restrictions may be amended, are hereby adopted in accordance
6 with RCW 36.70A.060 to protect critical aquifer recharge areas:
7 Northshore, Bear Creek, Soos Creek, Tahoma/Raven Heights, and
8 East Sammamish.

9 SECTION 7. King County will evaluate and implement, as
10 appropriate, ground water management plans and wellhead
11 protection programs to further protect ground water resources.

12 King County will also revise, as appropriate, the map of
13 critical aquifer areas, adopted in Section 2, to include areas
14 of high recharge to ground water as identified in ground water
15 management plans and wellhead protection programs.

16 SECTION 8. Severability. The provisions of this
17 ordinance are declared to be separate and severable. The
18 invalidity of any clause, sentence, paragraph, subdivision,
19 section or portion of this ordinance or the invalidity of the
20 application thereof to any person or circumstances shall not
21 affect the validity of the application of any other clause,

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1 sentence, paragraph, subdivision, section or portion of this
2 ordinance to other persons or circumstances.

3 INTRODUCED and READ for the first time this
4 15th day of August, 1994.

5 PASSED by a vote of 12 to 1 this 12th day of
6 September, 1994.

7 KING COUNTY COUNCIL
8 KING COUNTY, WASHINGTON

9 Kent Pullen
10 Chair

11 ATTEST:

12 Gerald A. Peter
13 Clerk of the Council

14 APPROVED this 12th day of September
15 , 1994.

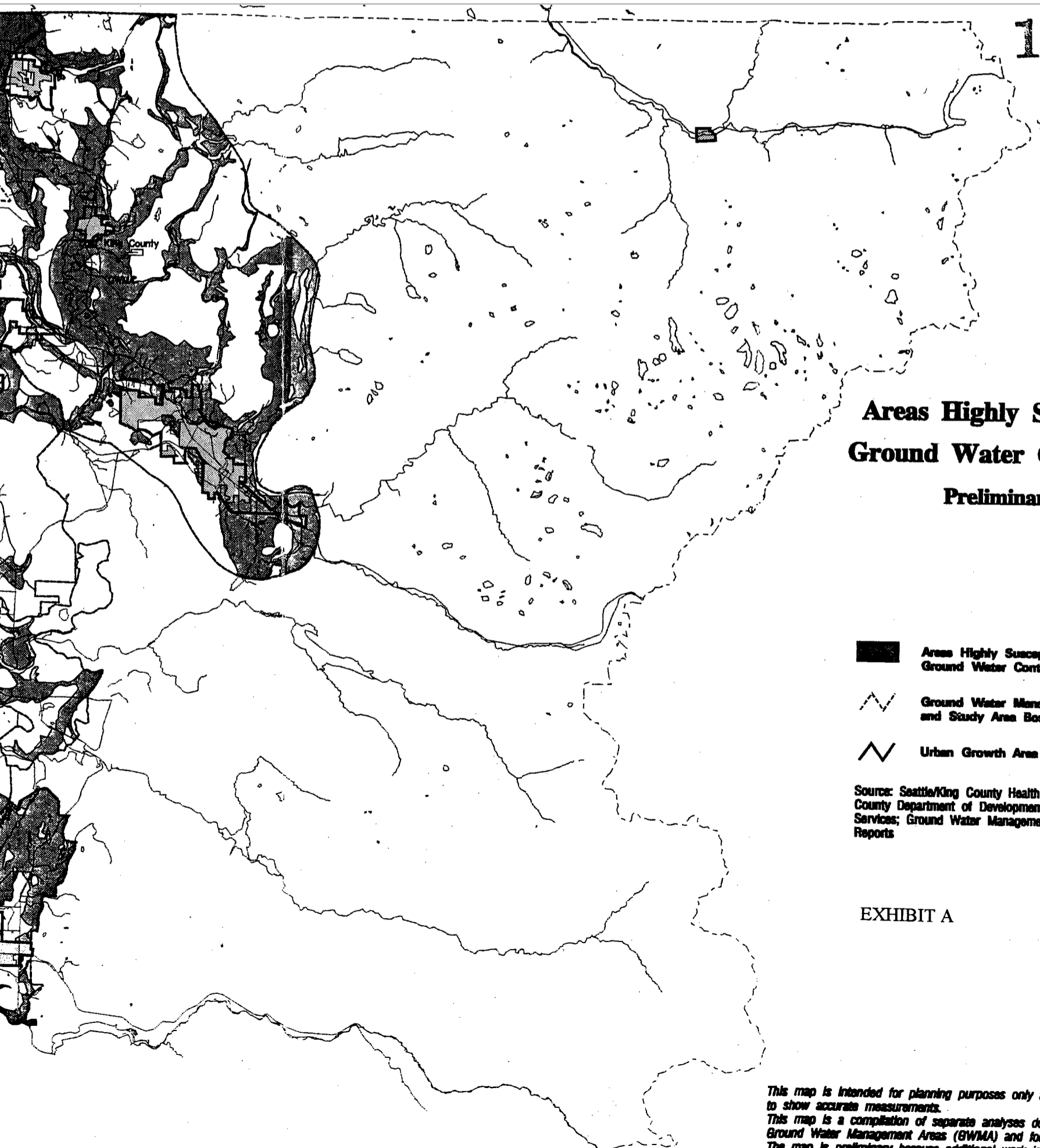
16 Ray Locke
17 King County Executive

18 Attachment:




19 A. Exhibit A: A map entitled Areas Highly Susceptible to
20 Ground Water

21 B. Exhibit B: A map entitled Sole Source Aquifers
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**Areas Highly Susceptible to
Ground Water Contamination
Preliminary Map**

-  Area Highly Susceptible to Ground Water Contamination
-  Ground Water Management Area (GWMA) and Study Area Boundaries
-  Urban Growth Area Line



Source: Seattle/King County Health Dept.; King County Department of Development and Environmental Services; Ground Water Management Area Technical Reports

EXHIBIT A

*This map is intended for planning purposes only and is not guaranteed to show accurate measurements.
This map is a compilation of separate analyses done for the five Ground Water Management Areas (GWMA) and four additional study areas.
The map is preliminary because additional work is necessary to resolve inconsistencies between areas.*

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**Sole Source Aquifers
in Unincorporated King County**

-  Sole Source Aquifer *
-  Sole Source Aquifer Designated Area Boundary

Source: Seattle/King County Health Dept.; King County Department of Development and Environmental Services; City of Renton

EXHIBIT B

* The Lower Cedar River Sole Source Aquifer exists partially inside the City of Renton. The Sole Source Aquifer Designated Area Boundary shows the entire Designated Area, however, only the portion of the Designated Area in Unincorporated King County is shaded.