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Declaration of a Groundwater Management Area in the Southern Willamette Valley

Date: May 10, 2004

From: Stephanie Hallock, Director

In accordance with the statutory policies set out in ORS 468B.155 and ORS 468B.160 and the authority given in ORS 468B.180, the Department of Environmental Quality (DEQ) is declaring a Groundwater Management Area (GWMA) in the Southern Willamette Valley. The area designated in the Southern Willamette Valley GWMA includes much of the valley floor near the Willamette River between Albany and Eugene. This area is shown on the following map and described in detail in Attachment A.

DEQ conducted groundwater quality monitoring in the Coburg and Junction City areas in 1993 and 1994 as part of statewide monitoring and assessment activities. DEQ conducted additional groundwater quality assessments in the Southern Willamette Valley in 2000 - 2001, and in 2002. Monitoring information from 2000-2001 identified contaminants in groundwater at concentrations exceeding levels set in ORS 468B.180. These initial monitoring results were confirmed by the 2002 study.

Nitrate in the shallow groundwater in parts of the Southern Willamette Valley exceeds 7 mg/L, a level which is 70% of the maximum measurable level (MML) established in OAR 340-040-0090. Groundwater at depths greater than 75 feet below ground surface may also be affected but adequate information is not currently available to assess those potential impacts. The information from groundwater monitoring and assessment activities in the area is summarized in the DEQ Southern Willamette Valley Groundwater Summary Report (January 30, 2004) and other area study reports¹.

The sources for nitrate in groundwater are suspected to be at least in part due to nonpoint source activities such as densely clustered or failing septic systems; agricultural practices; agricultural, commercial, or residential application of fertilizer; or animal waste management practices. Information about the potential nonpoint source activities related to land use in the area is presented in area study reports¹.

Between May and September 2003, DEQ discussed groundwater quality information and provided a working draft Southern Willamette Valley Groundwater Summary Report to a variety of governmental and non-governmental organizations including: Oregon Department of Agriculture; Oregon Water Resources Department; Oregon Department of Land Conservation and Development; Oregon Department of Human Services; Oregon State University Extension Service; Board of Commissioners, Environmental Health Departments and Planning Divisions of Linn, Lane and Benton Counties; Linn, Lane and Benton Soil and Water Conservation Districts; U.S. Department of Agriculture Natural Resource and Conservation Services; United States Geological Survey; and U.S. Department of Agriculture Farm Service Agency. These agencies and organizations were asked to provide informal review and comment on the draft recommendation to declare a groundwater management area in the Southern Willamette Valley.

A public comment period on the proposed Southern Willamette Valley GWMA declaration opened on September 22, 2003 and closed on December 1, 2003. A public notice was issued and published in the Oregon Secretary of State Bulletin on October 1, 2003. Seven informational meetings and public hearings on the proposal were held on October 22, 23, 28, 29, and 30 in Corvallis, Tangent, Harrisburg,

¹ Aitken, G., Arendt, J., and Eldridge, A., 2003, Southern Willamette Valley groundwater assessment 2000-2001 nitrate study: Oregon Department of Environmental Quality, 37 p.

Eldridge, A., 2003, Southern Willamette Valley 2002 groundwater study: Oregon Department of Environmental Quality, 23 p.



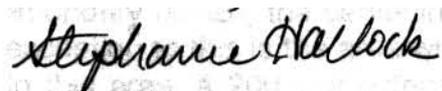
Greenberry, Junction City, and Coburg. Copies of the Southern Willamette Valley Groundwater Summary Report were made available at the Eugene DEQ office and on the internet. During the public comment period, DEQ received written comments (via e-mail) from three parties including representatives from the Willamette Association of Realtors and Benton County. One person provided oral comments on the proposal during the public hearings. DEQ summarized the issues raised, prepared responses, and revised the Southern Willamette Valley Groundwater Summary Report. The January 14, 2004 Response to Comments document along with the comments and the final Southern Willamette Valley Groundwater Summary Report are part of the Southern Willamette Valley GWMA file.

Within 90 days of issuing this declaration of the Southern Willamette Groundwater Management Area, DEQ will designate a lead agency responsible for developing an action plan to reduce existing contamination and to prevent further contamination of the affected groundwater aquifer. The Oregon Department of Agriculture will be responsible for developing the portion of the action plan that addresses farming practices. DEQ will consult with other appropriate state agencies and appoint a groundwater management committee to advise the state agencies developing an action plan regarding local elements of the plan. The action plan will be developed with opportunity for public comment and accepted in accordance with ORS 468B.184, ORS 468B.186, and ORS 468B.187.

This groundwater management area declaration can be found at the following websites: <http://www.deq.state.or.us/wq/groundwa/UpperWillBasin.htm> and <http://groundwater.oregonstate.edu/willamette/> or can be viewed at the following locations: DEQ Headquarters, 811 SW Sixth Avenue, Portland, OR 97204 or DEQ Western Region Office, 1102 Lincoln St., Suite 210, Eugene, OR 97401, (541) 686-7838. This document is also available via a CD, electronic file, or paper copy.

Should you have any questions about this declaration, please contact either Audrey Eldridge 541-776-6010 x223 eldridge.audrey@deq.state.or.us or Keith Andersen 541-686-7838 x246 andersen.keith@deq.state.or.us.

Issued by:

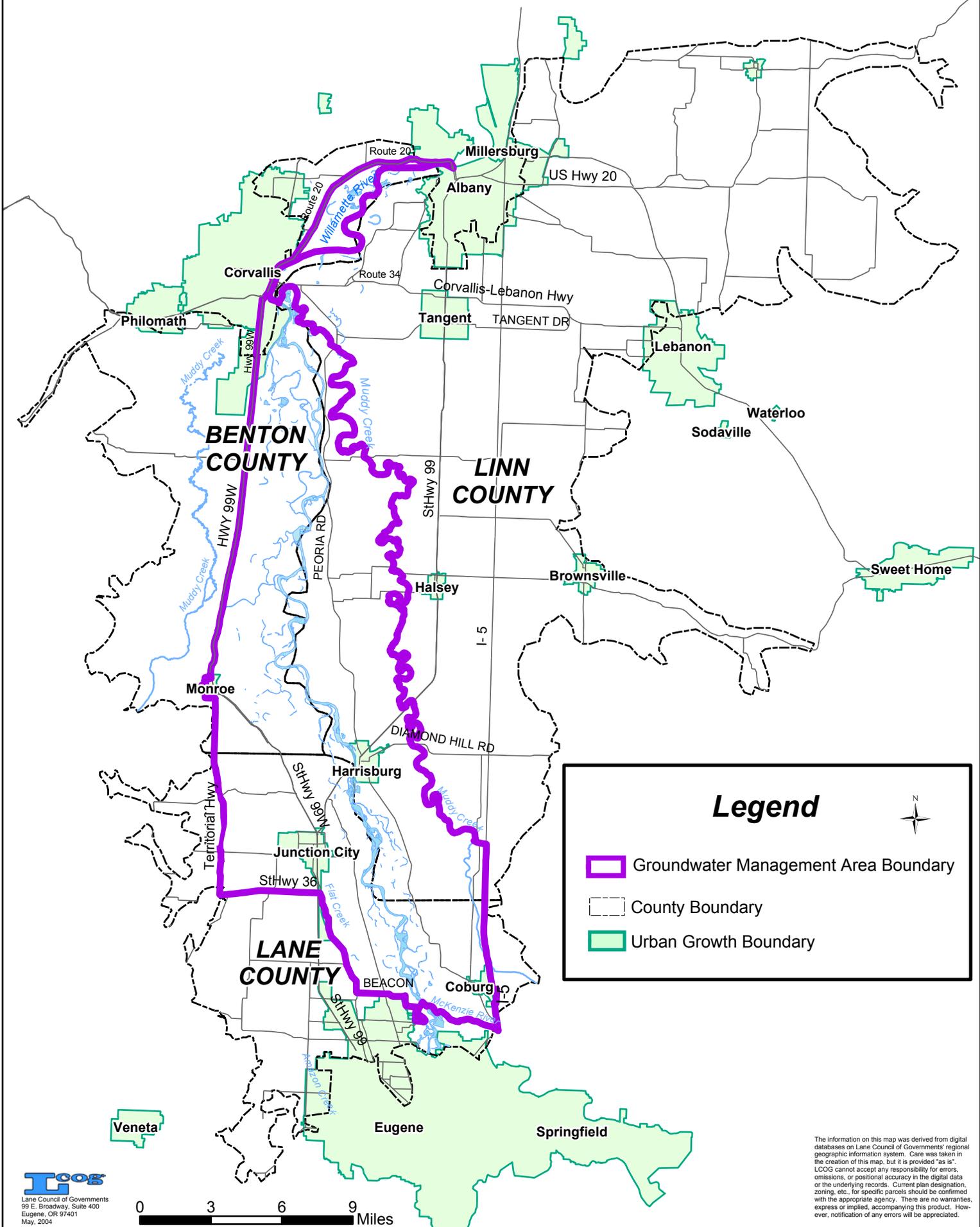


Stephanie Hallock
Director

Date: May 10, 2004

Attch:
Southern Willamette Valley GWMA Boundary Map
Attachment A

SOUTHERN WILLAMETTE VALLEY GROUNDWATER MANAGEMENT AREA



Legend

-  Groundwater Management Area Boundary
-  County Boundary
-  Urban Growth Boundary

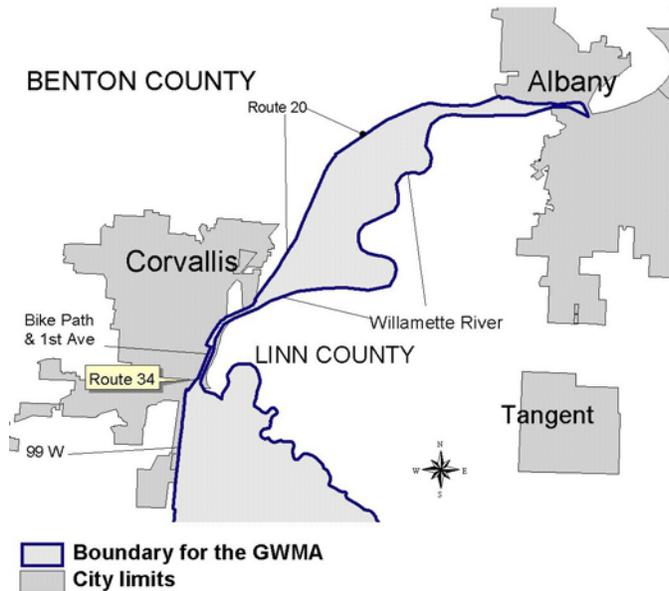
ATTACHMENT A GROUNDWATER MANAGEMENT AREA DECLARATION

The boundary for the entire Southern Willamette Valley Groundwater Management Area (GWMA) is shown on the preceding map entitled *Southern Willamette Valley Groundwater Management Area*. As there was no consistent correlation of high nitrate levels to geologic or hydrogeologic attributes, the boundary was constructed using recognizable geographical features that encapsulate the majority of the identified high nitrate groundwater. It is likely there are isolated areas in the Southern Willamette Valley with groundwater impacts similar to those in the proposed Management Area. These areas were not included either because (1) they did not have a high density (greater than 10% in the grid cell) of total nitrate values over 7.0 milligrams per liter (mg/L); or (b) these areas were not part of the original 2000-2001 study, and did not have representative groundwater samples analyzed. DEQ could not justify including these areas into the GWMA due to a lack of sufficient data to conduct a meaningful evaluation. DEQ anticipates that the Action Plan created for the GWMA should be useful for all areas in the Southern Willamette Valley with nitrate contamination of the shallow groundwater, where there are similar geologic and hydrogeologic conditions.

When the geographical feature used is the I-5 interstate or any waterway, the centerline of that geographic feature will be the actual boundary. In the unincorporated areas of the three counties, the non-interstate roadway boundaries will include a 200-foot extension from the centerline of the road towards the outside of the area of concern. The intention of this 200-foot extension is to keep neighbors and neighborhoods together. When a road is inside or adjacent to an Urban Growth Boundary (UGB), the centerline of the road will be the actual boundary line. The one exception to this is the area where 99W traverses through the UGB of south Corvallis. In this area, a 200-foot extension to the west of 99W and south of the Highway 34 bypass is used. Neighborhoods in this area of Corvallis are separated by Highway 99W and most are on septic systems and use private wells as their source of drinking water. These neighborhoods are similar to those found in the more rural areas. The cities of Coburg, Harrisburg, Monroe, and Junction City are included in the GWMA.

The eastern boundary of the S. Willamette Valley GWMA starts at the intersection of I-5 and the McKenzie River, continues north along I-5, encapsulating Coburg's UGB and the developed and committed exception area to the east of I-5 (See *Southern Willamette Valley Groundwater Management Area* map and Figure 2.) This boundary then continues on I-5 approximately 1.6 miles north of the Linn/Lane County line to the intersection of I-5 with Muddy Creek. The boundary then travels north-northwest along Muddy Creek to the East Channel of the Willamette River (see Figure 1.) The boundary follows the East Channel of the Willamette River to the north (in the downstream direction) until merging with the main channel of the Willamette River. The boundary continues generally northeast (in the downstream direction) on the Willamette River until reaching the Albany Route 20 bridge over the Willamette River.

Figure 1: Close-up of the Northern Portion of the GWMA Boundary



At this junction, the GWMA boundary continues west along Route 20 to the intersection of Tyler Street. The boundary then continues east along Tyler Street to 1st Street, south along 1st Street to the Riverside Paved Foot & Bike Trail, south on the Foot & Bike Trail to Route 34 bypass, west on Route 34 to 99W. The boundary continues south on 99W with the 200-foot buffer inside the City of Corvallis southern portion of their UGB (see Figure 1.)

The boundary for the GWMA continues south on 99W and follows the western-edge of the UGB of Monroe, including this city in the GWMA. The boundary then

continues south on Territorial Highway. At the intersection of Route 36 and Territorial, the boundary follows Route 36 to the east. The boundary crosses Route 99W and then follows Prairie Road to the south-southeast. At the T-intersection of Beacon Drive West and Prairie Road, the boundary continues east on Beacon Drive West, then east and then south on Beacon Drive East, south on River Loop #1, and then east on Chapman Drive to the Whiteley Landing (see Figure 2.) At the Whiteley Landing, the boundary continues on the Willamette River until the confluence with the McKenzie River, and then southeast along the McKenzie River (in the upstream direction) to I-5.

Figure 2: Close-up of the Southern Portion of the GWMA Boundary

