

Topic	Section	Publication Page	Paragraph	Comments provided by Donna Buxton, City of Olympia
Critical aquifer recharge areas to include deeper aquifers.	2	13-15		The guidance should highlight the susceptibility of deeper aquifers; groundwater protection should not be pertinent to shallow aquifers only. In addition to soil type and surface geology, CARAs should be delineated based also on the characteristics of deeper geology/geologic units. Perhaps Section 2 could include a subsection on how the concept of "critical aquifer recharge area" should be applied to the "depth dimension" of the hydrogeologic setting. For example, Figure 3 could be extended below the confining unit by showing it as discontinuous or leaky, illustrating the possibility of surface contaminants reaching deeper water supply aquifers.
CARAs that cross jurisdictional boundaries.	10	74	Identifying Gaps in Protection and Interjurisdictional Coordination	This section would be even more helpful if it also addressed city-to-city coordination, as many municipalities share a common boundary. Perhaps the regulatory mechanisms would allow the jurisdiction with the source well to regulate within the associated wellhead protection area that's within the neighboring jurisdiction. Ideally, the mechanism would be ordinance-level regulation consistent across the two (or more) involved jurisdictions, but if needed, would have foundation in/the weight of county or state level rule. In simplest form, perhaps the involved jurisdictions (for example, two cities) establish an interlocal agreement or memorandum of understanding for consistency in wellhead protection actions and to support cooperation with/collaboration on implementation. In more complex form, perhaps the County CARA includes wellhead protection area regulations specifically for wellhead protection areas that overlap jurisdictions. As the more peripheral urban areas are developed, protections need to be in place for areas where gaps in regulatory coverage exist. Perhaps the state could provide interlocal agreement/MOU templates or other models for addressing this regulatory gap in critical aquifer recharge area protection.
Voluntary Stewardship Program	1	7	Item 3	This text indicates a VSP can trump a critical area ordinance to regulate a polluter. It seems prudent that the stricter/more responsive of the two (presumably the ordinance) should prevail when polluting activities need to be addressed.
Permit-exempt wells	3	18	1st bullet	Where PE wells are located for water supply helps define locations where groundwater also needs to be protected to support instream flows. This bullet reads as if protecting drinking water supplies is the only reason for understanding where PE wells are located.

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Funding	11	76		Other sources of funding - levied at the city or county level - could include (1) requiring a bond to be posted by businesses/facilities that handle hazardous materials to cover the cost of spill response or remediation, prior to operation in wellhead protection area; (2) charging businesses/facilities a hazardous materials "use" fee to offset the potential cost of aquifer cleanup; (3) establishing building code fees to protect groundwater, for example, charged when septic systems and stormwater ponds are installed; (4) increase the tax rate for potentially polluting products (like fertilizers and pesticides; just as alcohol currently is taxed at a higher rate) to build a fund dedicated to spill response. Such funding mechanisms could apply to wellhead protection areas only or be available for any location given how our water resources are all connected.
Funding				WA Department of Health Source Water Protection Program offers grant funding. Please include a list of specific grant opportunities: the agencies that offer them with a linked website would be great.
Critical Aquifer Recharge Area Reports	9	72	3rd bullet	In addition to knowing hydrogeologic conditions of the water table aquifer or aquifer nearest land surface, any underlying aquifers of importance (say, for drinking water supply - municipal or otherwise) should also be identified. Protections should be in place for the "third dimension"/depth of critical aquifer recharge areas, to protect against any intrusions into deeper aquifers; for example, by the use of deep underground injection control wells for stormwater disposal.
Temporary Construction Dewatering	Appendix G	109	Comment 2	It would be helpful to address TCD in the body of the guidance as having the potential to influence the flow speed/direction of any groundwater contaminant plumes. This comment is in the vein of water rights, but the potentially large amounts of water involved could impact water supply and quality. Perhaps TCD projects are included in the Inventory Section 4, Steps 3 and 6, 7 and 8.
Inventory existing and potential sources of groundwater contamination	4	36	Step 3	Consider including mobile fleet-fueling services as potential sources of contamination, often regulated by fire departments.
Land acquisition				Consider including text on the benefits (while acknowledging the cost) of acquiring land as the ultimate groundwater protection strategy - to keep it from ever being developed. Establishing conservation easements and managing and sustaining prioritized land are other strategies to protect groundwater.
U.S. EPA guidance				U.S. EPA's 2019 Web Page for source water protection is referenced only in Section 12 References. Please reference it in the body of the document as it offers many good ideas and resources.
Response to Comments on the 2005 CARA Guidance	Apx G			Although it was a lot to read through, I found Appendix G very informative. Many of Ecology's Responses were incorporated into the 2021 Guidance; thank you for that.