

Memorandum of Understanding

Between the Federal Highway Administration (FHWA) Washington Division,
the Environmental Protection Agency (EPA) Region 10,
and the Washington State Department of Transportation (WSDOT)

Regarding

Sole Source Aquifers

in the State of Washington

INTRODUCTION

The purpose of this memorandum is to develop an understanding between the Environmental Protection Agency (EPA) Region 10, the Federal Highway Administration (FHWA), and the Washington State Department of Transportation (WSDOT) concerning the review of Federal-aid highway projects which may affect, by having the potential to contaminate, the water quality of designated Sole Source Aquifers in the state of Washington, hereinafter referred to as the Aquifer(s). (See Attachment A). The area in which this agreement applies is the geographic extent of the designated "Sole Source Aquifer" and its associated "Recharge Area". The Safe Drinking Water Act of 1974 Section 1424(e) states that after a notice of determination is made (a Sole Source Aquifer is federally designated) that, "After the publication of any such notice, no commitment for Federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such aquifer through a recharge zone so as to create a significant hazard to public health".

This memorandum outlines the criteria against which projects will be evaluated and the procedures to be followed by FHWA, WSDOT, and EPA in conducting project evaluation and formal review within the State of Washington. The memorandum also outlines the categories of projects that do not need to be submitted to EPA for review.

This MOU does not create any right or benefit, substantive or procedural, enforceable by law or equity, by persons who are not party to this agreement, against FHWA, WSDOT, or EPA, their officers or employees, or any other person. This MOU does not apply to any person outside of FHWA, WSDOT, and EPA.

GOAL

The goal of this memorandum is to assure that each highway project that receives FHWA financial assistance is designed and constructed in a manner that will prevent the introduction of contaminants into an Aquifer.

I. DEFINITIONS AND AGREEMENT

Significant Hazard to Public Health: A "significant hazard to public health" occurs if the level of contaminants in an Aquifer would:

1. exceed National Primary Drinking Water Standards, or
2. exceed public health advisory levels for currently unregulated contaminants, or
3. violate the intent of Executive Order 12088, "Federal Compliance With Pollution Control Standards," or
4. otherwise threaten public health.

In determining whether a level of contamination would threaten public health, the following factors, at a minimum, shall be considered:

1. the toxicity and migration/transformation of the contaminants involved;
2. the volume of contaminants which may enter the Aquifer; and
3. Aquifer characteristics, i.e., geochemical, hydrological, geological, etc., and attenuation capability of the Aquifer.

Additional definitions for terms used in this MOU can be found in Attachment B.

Agreement: EPA, FHWA, and WSDOT hereby mutually agree that all Federal-aid highway projects within the designated Aquifers listed in Attachment A, and amendments thereto, will be constructed in a manner that will prevent the introduction of contaminants into an aquifer and in no case create a significant hazard to public health, including not to cause an exceedance of the maximum contaminant levels promulgated by the Washington State Department of Health in [WAC 246-290-310](#) *Group A Public Water Supplies, Wellhead and Source Water Protection*

II. CRITERIA AND PROCEDURES

a. The Current Procedure for Review of Projects by EPA is Described Below:

1. Complete the [Region 10 Sole Source Aquifer Checklist](#) (available on the [EPA website](#)), and e-mail it to the address found on the [EPA website](#). It will take longer for EPA to respond to requests submitted without a checklist or via hard copy. It is not necessary to submit an Environmental Assessment (EA), Environmental Impact Statement (EIS), or other National Environmental Policy Act (NEPA) documentation with the initial request. EPA may request additional documentation, but usually the checklist is all that is required (this review is separate from EPA's NEPA review).
2. EPA agrees that all requests for Region 10 Sole Source Aquifer Checklist reviews submitted by WSDOT to FHWA and EPA for evaluation or review purposes shall be responded to within thirty (30) calendar days of receipt unless:
 - a) There are comments (with substantiating data) arising from review by the public, interested agencies, and tribes, indicating adverse impacts on the Aquifer. WSDOT, through FHWA, will immediately send these comments to EPA who will notify FHWA and WSDOT within thirty (30) days of receipt of the comments regarding EPA's decision. EPA reserves the right to extend this time period when it finds that additional information is needed, that additional administrative review is necessary, or that it will be in the public interest to hold a public meeting. EPA will notify FHWA of any extension of the review time period.
 - b) EPA receives a citizen's request at any time during the review or at any time before FHWA has approved the project's final environmental document. EPA will immediately notify FHWA and WSDOT (in writing, if time permits or by telephone if the end of the comment period is near). EPA will reevaluate the project with respect to the concern[s] contained in the request, and will notify FHWA and WSDOT within thirty (30) days of receiving such request information of EPA's decision.
 - c) EPA requests additional review time either by telephone or in writing. If EPA requests additional time, EPA will inform FHWA and WSDOT within thirty (30) additional days of the results of this evaluation.
3. The response from EPA should be included in the project's NEPA document or administrative record.

b. Project Categories Exempt from Review.

Generally, EPA does not need to see projects that typically will not impact the aquifer in any way. The following project types do not need review: Pavement resurfacing, repair or reconstruction; routine repair of existing facilities; lighting; signalization; signing; pavement marking; rumble strips; guardrail; safety barriers; pathways; sidewalks; bicycle lanes; freeway surveillance and control systems; railroad protective devices; glare screening; energy attenuators; noise walls; routine roadway maintenance activities; landscape activities including seeding and planting

using native species and organic amendments; riparian and wetland mitigation activities; utility installations; rock slope stabilization; intersection improvements, Culvert replacements, and the temporary replacement of highway facilities damaged by natural disasters or catastrophic failures.

When roadways and or bridges need immediate emergency repair per RCW 47.28.170 *Emergency protection and restoration of highways* and a Declaration of Emergency pursuant to WSDOT's Emergency Relief Procedures Manual (M3014.02), and the repair would otherwise be subject to EPA review under Steps 1 and 3 in Attachment C, the review will occur either per this MOU or post-repair if the repair must proceed sooner than the timelines in this MOU would allow. As staff resources and workload allow, EPA will strive to expedite their review in emergency situations. WSDOT will not conduct emergency repairs that have the potential to contaminate a Sole Source Aquifer.

See attachment C for steps to determine if your project requires EPA SSA review.

III. STORMWATER AND OTHER PROGRAMS IMPACTING AQUIFERS

Information about regulatory requirements governing stormwater on WSDOT development and redevelopment projects can be found in Attachment D. Also included in Attachment D are links to other helpful sites for project agency information. For example, these sites provide information on requirements for groundwater and surface water programs, NPDES program, Underground Storage Tank programs, as well as others.

IV. COORDINATION AND CONTACTS

Materials furnished to EPA by WSDOT, with a copy to FHWA, under this Memorandum of Understanding will be addressed to the attention of the Drinking Water Unit in the Office of Water and Watersheds in EPA's Region 10 Office in Seattle. EPA will respond to the submittal with project review comments or findings.

FHWA, WSDOT, and EPA will assign a liaison officer to serve as a central contact point to be responsible for maintaining communications as to procedures and activities of their respective Agency. The liaison officers are:

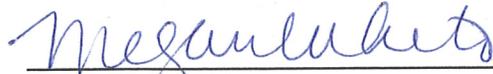
FHWA: Environmental Program Manager, FHWA Washington Division
Suite 501, Evergreen Plaza Building
711 South Capitol Way
Olympia, Washington 98501
(360) 753-9480

WSDOT: Resource Programs Branch Manager, Environmental Services Office
Washington State Department of Transportation
P.O. Box 47332
Olympia, WA 98504-7332
(360) 570-6642

EPA: Unit Manager, Drinking Water Unit
U.S. Environmental Protection Agency
1200 Sixth Avenue, Mail Stop 136
Seattle, Washington 98101
(206) 553 1893

The liaison officers accompanied by appropriate staff will hold meetings as needed to discuss matters of concern related to the Aquifers and this Memorandum of Understanding.

This Memorandum of Understanding is subject to revision upon agreement of all of the following agencies.



Megan White, P.E.
Director, Environmental Services Office
Washington State Department of Transportation

Date: 9/30/2014



Daniel M. Mathis, P.E.
Division Administrator, Washington Division
Federal Highway Administration

Date: 10/01/2014



Daniel D. Opalski, Director
Office of Water and Watersheds, Region 10
Environmental Protection Agency

Date: 25 Sept. 2014

ATTACHMENT A - AQUIFERS

Pursuant to the Safe Drinking Water Act ([42 USC §300h-6](#)), EPA has determined that the aquifers listed below are the sole or principal drinking water source for their respective designated areas. As such, no commitment for federal financial assistance may be entered into within the boundaries of these designated Sole Source Aquifers (and any other sole source aquifer review areas designated after the date of this MOU) for any project which EPA determines may contaminate any of these aquifers through their Recharge Areas (watershed map shown for each aquifer) so as to create a significant hazard to public health or the environment. Maps of these aquifers can be found on the [EPA Region 10 website](#).

Aquifer Name	Location	Federal Register Notice	Date
Spokane Valley Rathdrum Prairie	Spokane County, WA	Vol. 43, No. 28 5566 <i>et. seq.</i>	2/9/78
Whidbey Island	Island County, WA	Vol. 47, No. 66 14779 <i>et. seq.</i>	4/6/82
Camano Island	Island County, WA	Vol. 47, No. 66 14779 <i>et. seq.</i>	4/6/82
Cross Valley	Snohomish County, WA King County, WA	Vol. 52, No. 95 18606 <i>et. seq.</i>	5/18/87
Newberg Area	Snohomish, County, WA	Vol. 52, No. 192 37215 <i>et. seq.</i>	10/5/82
Cedar Valley	City of Renton King County, WA	Vol. 53, No. 191 38779 <i>et. seq.</i>	10/3/88
Lewiston Basin	Asotin and Garfield Counties, WA	Vol. 53, No. 191 38782 <i>et. seq.</i>	10/3/88
Central Pierce County	City of Tacoma Pierce County, WA	Vol.59, No.1 224 <i>et. seq.</i>	1/3/94
Marrowstone Island	Island County, WA	Vol.59, No.105 28752 <i>et. seq.</i>	6/2/94
Vashon-Maury Island	King County, WA	Vol.59, No.127 34468 <i>et. seq.</i>	7/5/94
Guemes Island	Island County, WA	Vol. 62, No.230 63545 <i>et. seq.</i>	12/1/97
Troutdale	City of Vancouver, WA Clark County, WA	Vol. 71, No. 172 52541 <i>et. seq.</i>	10/5/06
Bainbridge Island	Kitsap County, WA	Vol 78, No. 07409 19262 <i>et seq.</i>	3/29/13

ATTACHMENT B - DEFINITIONS

Aquifer means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring

Recharge means a process, natural or artificial, by which water is added to the saturated zone of an aquifer.

Recharge Area means an area in which water reaches the zone of saturation (ground water) by surface infiltration; in addition, a *major recharge area* is an area where a major part of the recharge to an aquifer occurs.

Sole Source Aquifer means an aquifer which is designated as an Sole or Principal Source Aquifer under section 1424(e) of the Safe Drinking Water Act

Pollution Generating Impervious Surface (PGIS) means an impervious surface that is considered a significant source of pollutants in stormwater runoff, including surfaces that receive direct rainfall (or run-on or blow-in of rainfall) and are subject to vehicular use; industrial activities; or storage of erodible or leachable materials, wastes, or chemicals. Erodeable or leachable materials, wastes, or chemicals are substances that, when exposed to rainfall, measurably alter the physical or chemical characteristics of the rainfall runoff. Examples include roadways, sidewalks that are regularly treated with salt or other deicing chemicals, erodible soils that are stockpiled, uncovered process wastes, fertilizers, oily substances, ashes, kiln dust, and garbage container leakage. A surface, whether paved or not, is considered subject to vehicular use if it is regularly used by motor vehicles. The following are considered regularly used surfaces: roads, unvegetated road shoulders, bicycle lanes within the travel lane of a roadway, driveways, parking lots, unfenced fire lanes, vehicular equipment storage yards, and airport runways.

Non-pollution-generating surface (NPGIS) means a surface that, based on its use, is an insignificant or low source of pollutants in stormwater runoff. For example, roofs that are subject only to atmospheric deposition or have normal heating, ventilation, and air conditioning vents; paved bicycle pathways and pedestrian sidewalks that are separated from roads used by motor vehicles and not treated regularly with de-icing salts or chemicals; fenced fire lanes; infrequently used maintenance access roads; and in-slope areas of roads.

ATTACHMENT C – STEPS TO DETERMINE IF YOUR PROJECT REQUIRES EPA SSA REVIEW

1. Is your project located within a Designated Sole Source Aquifer and/or its associated Recharge Area?

If it is not, EPA SSA review is not required, if it is, continue to question 2.

2. Will your project require the preparation of an Environmental Assessment or Environmental Impact Statement to comply with the National Environmental Policy Act?

If it does, and you answered yes to #1, then you will need to submit your project to EPA for review.

3. Does your project involve any of the following aspects? If so, and you answered yes to #1, then submit the project to EPA for review.

- a. Addition of drainage wells, or stormwater infiltration facilities that do not meet treatment requirements of the Washington State Department of Transportation Highway Runoff Manual (WSDOT HRM).
- b. Added Pollution Generating Impervious Surface (PGIS) more than 5000 ft² that does not meet the stormwater treatment requirements of the WSDOT HRM.
- c. Opening of new material sources which could result in potential contamination.
- d. Replacement drywells or other Injection Wells that do not meet treatment requirements of the WSDOT HRM or Underground Injection Control regulations (Chapter 173-218 WAC).
- e. Removal of known Leaking Underground Storage Tanks.
- f. Drilled Shafts or pile-driving, for bridge or other foundations that penetrate, or come close to penetrating the sole source aquifer.
- g. Abandonment of water supply wells that penetrate the sole source aquifer.
- h. Construction or upgrading of sewage disposal stations at rest areas, weigh stations or scenic overlooks.
- i. Landscape construction projects if pesticides, herbicides, and fertilizers are used that contain any of the compounds listed in the [National Primary Drinking Water Regulations, 40 CFR Part 141](#).
- j. Located within the boundaries of a site listed on the EPA National Priorities List (i.e., a Superfund site), or the Department of Ecology Confirmed or Suspected Contaminated Sites List (CSCSL).

ATTACHMENT D – STORMWATER AND OTHER CONSTRUCTION REGULATORY LINKS

1. Regulatory requirements governing stormwater on WSDOT development and redevelopment projects: Washington State Department of Transportation Highway Runoff Manual (equivalent to Washington State Department of Ecology’s Stormwater Management Manuals for both Eastern and Western Washington) applies statewide, in and outside of National Pollutant Discharge Elimination System (NPDES) municipal stormwater permit coverage areas. Use of the manual’s guidelines represents the presumptive approach to meeting state and federal stormwater discharge requirements.
 - a. [WSDOT NPDES Municipal Stormwater and State Waste Discharge Permit](#) in compliance with provisions of the Washington State Water Pollution Control Act ([RCW 90.48](#)) and the Clean Water Act ([33 USC 1251 et seq.](#)) and The NPDES Permit Program ([WAC 173-220](#)).
 - i. Requires the reduction of the discharge of pollutants to the maximum extent practicable (MEP)
 - ii. Requires All Known Available and Reasonable methods of prevention and Treatment (AKART)
 - iii. Does not authorize discharges which would be in violation of:
 1. [WAC 173-200](#) Water Quality Standards for Groundwater;
 2. [WAC 173-201A](#) Water Quality Standards for Surface Water;
 3. [WAC 173-204](#) Sediment Management; or
 4. Human health-based criteria in the [national Toxics Rule](#) (Federal Register, Vol. 57, NO. 246, Dec. 22, 1992, pages 60848-60923)
 - b. NPDES Construction Stormwater General Permit (Water Pollution Control [RCW 90.48](#) and Clean Water Act [33 USC 1251 et seq.](#)) Both NPDES stormwater permits WSDOT is regulated by are also issued by the Department of Ecology as State Waste Discharge Permits, and as such regulate discharges to ground as well as surface waters.
 - c. [Federal Safe Drinking Water Act](#) (Public Health and Welfare 42 USC 6A, sub 12, Part C)
 - i. [WAC 173-218](#) Underground Injection Control Program
 - ii. [RCW 90.48](#) Water Pollution Control
2. WSDOT Agreement with Washington State Department of Health “WSDOT Highways & Drinking Water Well Sanitary Control Areas – Screening Criteria” requires WSDOT meet screening criteria to protect public water supply wells. This agreement relies on:
 - a. [RCW 70.116](#) Public Water System Coordination Act of 1977;
 - b. [WAC 246-290](#) Group A Public Water Supplies;
 - c. [WAC 246-291](#) Group B Public Water Supplies;
 - d. [WSDOT Highway Runoff Manual](#);
 - e. [WSDOT Integrated Vegetation Management](#) Plan (requires practices are compliant with health and environmental standards);
 - f. Clean Water Act ([33 USC 1251](#)); and
 - g. Puget Sound Highway Runoff Program ([WAC 173-270](#)).
3. Local Jurisdictions Critical Areas Ordinances ([RCW 36.70A - Growth Management Act](#))
[WAC 365-195](#) - Growth Management Act - Best Available Science [WAC 365-196-830](#) - Protection of critical areas (which include Critical Aquifer Recharge Areas)
4. Removal of Underground Storage Tanks ([Resource Conservation and Recovery Act of 1976](#) 42 USC 6109, *et seq.* and [Underground Storage Tank Compliance Act of 2005](#) 42 USC 15801 *et. seq.*, and [Energy Policy Act of 2006 P.L. 109-58, Title XV, Subtitle B](#))
 - a. [RCW 90.76](#) Underground Storage Tanks
 - b. [WAC 173-360](#) Underground Storage Tank Regulations