

Drinking Water Source Protection

General Information on Funding and Rating Projects

The FFY-2016 Funding Drinking Water Source Protection (DWSP) Letter of Interest (LOI) solicitation will be used to gather project proposal requests. Each LOI received by the close date will be reviewed, rated, and ranked. Funding for eligible projects begins in 2016 based upon overall project ranking, readiness to proceed, and set-aside funding. Drinking water systems should prepare and submit information about their proposed projects on a *Drinking Water Source Protection Letter of Interest* form. Note that there are guidelines for emergency projects that can be submitted at any time.

Types of Funds

Two types of funding may be available for eligible drinking water source protection projects:

1. **Low interest loans** up to a maximum of \$100,000.
2. **Grant funds** up to \$30,000 per water system.

How Funds are Disbursed

Grant and loan awards must be spent within two years. Any unspent funds at the end of two years are subject to forfeiture. Grant and low interest loan funding is disbursed on a reimbursement basis for costs incurred after all required IFA paperwork has been completed. Costs incurred prior to the completion of all required IFA paperwork are not eligible for funding.

Who is Eligible?

Any Public and Privately-owned Community and Nonprofit Non-Community water systems with a completed *Source Water Assessment* are eligible for funds.

A “community water system” is defined as a public water system that has 15 or more service connections used by year-round residents, or which regularly serves 25 or more year-round residents. This includes water systems that are owned privately, by non-profit or public entities such as a city, district, or port.

A “nonprofit non-community water system” is a public water system that is not a community water system and that regularly serves at least 25 people (more than 6 months per year) and is legally recognized under Oregon law as a nonprofit entity.

Water systems that have received Drinking Water Source Protection loans and/or grants in each of the last two years are not eligible for loans or grants in the current year.

Eligible Projects

Eligible activities include those that lead to risk reduction within the delineated source water area or would contribute to a reduction in contaminant concentration within the drinking water source. Projects can take either a local or regional approach. Local projects are defined as activities that concentrate on a public water system’s source area(s). Regional projects are defined as activities that involve multiple communities and/or water systems attempting to address a common source water issue or group of issues.

The categories for eligible projects for DW Source Protection funding include the following:

1. Enhanced Delineation

OHA and DEQ have completed delineations for most drinking water source areas (DWSA) for the community and non-community public water systems. DWSAs include aquifer recharge areas for groundwater sources and fifth-field watershed areas for surface sources. DW Source Protection funding can be used to complete, update, or refine DWSA delineations using new or additional site-specific information as part of a more comprehensive protection strategy.

2. Enhanced Assessment:

A) ***Inventory*** – Projects that improve upon existing potential contaminant source inventories available from DEQ databases, Geographic Information System layers, and Assessment Reports prepared by OHA/DEQ. A project could involve expanding or updating the inventory of land uses or existing and potential point and non-point contaminant sources.

B) ***Evaluation*** – Projects establishing a water quality monitoring project to evaluate existing and potential threats to water quality, including chemical and/or biological drinking water quality threats not currently regulated under the federal Safe Drinking Water Act. This could include evaluating and prioritizing potential threats (or protection activities) based upon new or more detailed information.

3. Source Protection Planning

Projects designed to identify appropriate protection measures, including development of a comprehensive Drinking Water Source Protection (DWSP) plan, educational projects, projects to identify and ensure implementation of Best Management Practices (BMPs), development of local DWSP ordinances, development of restoration or conservation plans for the source area for future easement or land acquisition.

4. Implementation

Funds can be used to implement many types of protection strategies in drinking water source areas. This can include implementation of any *eligible activities that will reduce risks within the source water area or would contribute to a reduction of contaminant concentration within the drinking water source(s)*. The list of eligible projects has been structured to show specific ideas and higher priorities for current grant funding for source water protection. The highest listed project examples generally score higher in our rating process due to their higher potential risk reduction (described in Section 5 below). These projects can be combined and expanded to include other pollution prevention projects not specifically listed.

Types of projects that can be evaluated for funding include:

- Implementing drug-take-back projects in source areas
- Projects for reducing pesticide application rates and loadings in source area
- Implementing household hazardous waste collection events
- Focused workshop events for household/business instruction for changing to alternative nonhazardous product usage (“green chemical” products)

- Closure of high-risk abandoned or unused (private or irrigation) wells near public water supply wells
- Projects for reforestation or replanting in sensitive or riparian areas
- Installation of signs at boundaries of zones or protection areas
- Projects to decommission onsite systems and connect homes to existing sewer lines
- Seismic spill prevention or inspection project in proximate areas for high-risk sources
- Permanent abandonment (i.e. filling in) of inadequately constructed private wells within the source area
- Installation of fencing around the immediate intake or well area to provide protection of sensitive source water areas (see “Security” below)
- Secondary containment for high-risk above ground storage tanks
- Structures to divert contaminated stormwater runoff affecting the source area
- Installation of fencing to protect sensitive riparian source areas
- Implementation of pollution prevention or waste reduction projects
- Restoration and/or conservation projects within the drinking water source area
- Implementation of water reuse and other conservation measures related to source protection
- Implementation of best management practice projects
- Implementation of conservation easements to protect sensitive source areas
- Implementation of a drinking water source protection ordinance
- Establishing management plans for conservation easements or lands purchased within source areas
- Set up Ecosystem Services project in watershed to fund preservation areas
- Development of educational flyers/brochures for purposes of public education
- Purchase of lands within the drinking water source area (**funded only via low interest loans**)

5. *Security*

Funds can be used to implement certain security measures as long as the project reduces the risk of contamination to the source area or intake/well. This can include fencing around sensitive areas near wells or intakes, gates for access roads, alarms, signs, cameras, locks and lights if these are clearly intended to protect highly sensitive source water areas (such as 1- or 2-yr Time-of-Travel zones or a sensitive area within the 2-year Time-of-Travel zone) and not just equipment or facilities.

Types of projects NOT eligible as part of DW Source Protection funding

- Operations and maintenance of the system
- Routine or required follow-up source water monitoring
- Purchase or maintenance of treatment facilities
- Fencing of routine 100-foot setbacks, or fencing around storage tanks or reservoirs
- Security measures designed to reduce theft or vandalism of facilities
- Routine regulatory requirements for other programs
- Easements for required 100-ft setbacks around public water supply wells or springs

EMERGENCY Grants

A project may be funded outside of the regularly scheduled grant funding cycle under the “Emergency Project” designation. In order to be characterized as an “emergency”, the project must meet all of the following characteristics:

1. The water quality threat came from a reasonably unexpected occurrence or catastrophe (Note that a situation arising from preventable negligence on the part of the water system will not likely be eligible),
2. The water quality threat has occurred within 180 days before Letter of Interest (LOI) is submitted to the Authority,
3. Entails an immediate risk of a dangerous lack or loss of potable drinking water for an extended time period,
4. Represents a current or future threat to public health,
5. The Letter of Interest for the “Emergency Project” must score 85 or more points using the existing Drinking Water Source Protection LOI scoring system.

Public Notification Requirements:

DWSRF Public Notice Policy <i>(revised 12-11-15)</i>	
Project Type:	Days Published*
Infrastructure (non-emergency loans)	30
Infrastructure (Emergency loans)	N/A**
DWSP (non-emergency grants and/or loans)	30
DWSP (Emergency grants only)	N/A**
DWSP (Emergency grants with loans)	grant: N/A** & loan: 30
SIPP (non-emergency grants)	30
* Days published is a requirement that must occur prior to the project moving forward in the funding process	
** Courtesy 7-day public notice is published, but no comment period is required	

Next Step - after a Letter of Interest is submitted

Attachment A, at the end of this document, contains a flowchart of the major steps that occur from the time that an LOI is submitted through the close of a selected project. Each Drinking Water Source Protection project proposal that’s submitted on a Letter of Interest form is reviewed and evaluated. Letters of Interest received from groundwater systems are reviewed and evaluated by the Drinking Water Program staff at the Oregon Health Authority. Letters of Interest received from surface water systems are reviewed and evaluated by the Drinking Water Protection staff at the Department of Environmental Quality, Water Quality Division.

Each scored project is then placed on a numerically ranked DW Source Protection Project Priority List. Oregon Health Authority DWS will notify the project contacts of their selection.

Those projects that are ready to proceed to the financing phase may begin the funding process with the assistance of Business Oregon, Infrastructure Finance Authority (IFA). Please contact Business Oregon (503-986-0123) or visit their website at, <http://www.orinfrastructure.org/SDWRLF> if you have questions specific to funding timelines.

Projects selected for funding must be completed within two years. **At the end of two years, the project will be considered closed and any remaining award monies that have not been spent will be forfeited.**

Project Reporting Requirement

At the close of the project, the water system will be required to complete a one page questionnaire that must be returned to IFA before the final grant disbursement. When a project involves a study that includes the collection of data or water quality monitoring results, in addition to the questionnaire, a brief report will be required that includes a project narrative, presentation of data, data interpretation, and conclusions.

Project Rating Criteria

Drinking Water Source Protection project submittals will be rated by the state agencies based upon the following five criteria:

- area and level of sensitivity of the drinking water source,
- presence of high-risk sources of contamination within the drinking water source area,
- contaminant detections at the source,
- proposed reduction or prevention activities, and
- risk reduction potential.

1. Area in which the proposed project is focused (either A or B): [maximum 20 points]

- A For surface water, within identified sensitive areas in the source watershed, defined as any one of these:
1. Project within 1000 feet from the centerline of all perennial streams or canals, and within an 8-hour time-of travel upstream from the stream/canal intake [20]
 2. Project within 1000 feet from the perimeter of a reservoir or lake, and within 1000 feet from the centerline of all perennial streams flowing into the reservoir or lake [20]
 3. Project within other sensitive areas identified in the Source Water Assessment Report [20]
 4. Project outside of sensitive areas, but significant contribution to source waters [10]
- B. For groundwater, within identified sensitive areas in the source area, defined as any one of these:
1. Highly sensitive water sources based on aquifer characteristics or well construction
 - a. Project within 2-year time-of-travel boundary for wells or within Zone 1 for springs [20]
 - b. Project outside 2-year time-of-travel boundary for wells or outside Zone 1 for springs [10]
 2. Moderately sensitive water sources based on aquifer characteristics or well construction

- a. Project within 2-year time-of-travel boundary for wells or within Zone 1 for springs [15]
- b. Project outside the 2-year time-of-travel boundary for wells or outside of Zone 1 for springs [5]

2. Number and distribution of potential contaminant sources within the drinking water source area: [maximum 10 points]

- A. For surface water systems, either 1 or 2:
 - 1. The number of identified high and moderate risk potential contaminant sources within the sensitive areas as identified in the Source Water Assessment
 - a. <3 [3]
 - b. 3-7 [5]
 - c. >7 [10]
 - 2. The percentage of sensitive area(s) covered by high- and moderate- risk NONPOINT potential contaminant sources, including Irrigated crops, Grazing animals (>5 large animals/acre), Biosolids application site, Privately-owned managed forest lands, Recent burn areas (<10 years), High density septic systems (>1/acre):
 - a. <25% [3]
 - b. 25-50% [5]
 - c. >50% [10]
- B. For groundwater systems:
 - 1. The number of identified high-and moderate-risk potential contaminant sources within the sensitive areas
 - a. Within the 2-year time-of-travel boundary for wells or within Zone 1 for springs
 - 1. <3 [1]
 - 2. 3-10 [3]
 - 3. >10 [5]
 - b. Outside the 2-year time-of-travel boundary for wells or outside Zone 1 for springs
 - 1. <10 [1]
 - 2. 10-20 [3]
 - 3. >20 [5]
 - 2. The density of high-risk sources within the entire source area
 - a. <10/ mi² [1] (mi² = square miles)
 - b. 10-25/mi² [3]
 - c. >25/mi² [5]

3. Confirmed contaminant detections at a system's well(s), spring(s), intake(s), or data demonstrating an imminent threat to those systems with detections in groundwater or surface water source area: [maximum 20 points]

- A. Turbidity (ntu = nephelometric turbidity units)
 - 1. Routinely >1.0 ntu [5]
 - 2. Occasional spikes > 5.0 ntu [15]
 - 3. More than one closure due to high turbidity [20]
- B. Acute illness threats (nitrate and microorganisms)
 - 1. Nitrate at concentrations between 20 and 50% of the SDWA MCL [10]
 - 2. Nitrate, multiple detections of concentrations between 50% and the SDWA MCL

- [15]
- 3. Confirmed fecal coliforms, viruses, or protozoa in the source [20]
- 4. Nitrate, multiple detections of concentrations at or above the SDWA MCL [20]
- C. Chronic illness threats (volatile organics, pesticides, and non-SDWA toxics)
 - 1. Confirmed multiple detections at concentrations <50% SDWA MCL [10]
 - 2. Confirmed multiple detections of non-SDWA toxics (listed within most current DEQ Agency Toxics Strategy) [10]
 - <http://www.oregon.gov/deq/Pages/ToxicsReduction.aspx>
 - 3. Confirmed multiple detections at concentrations between 50% and the SDWA MCL [15]
 - 4. Confirmed multiple detections at concentrations at or above the SDWA MCL [20]

4. Drinking water protection activities: [maximum 20 points]

- A. Risk reduction plans.
 - 1. The water system/community has developed detailed risk-reduction plans for one or more of the high-risk potential contaminant sources within their source area but has not yet achieved substantial implementation [10]
 - 2. The water system/community has a certified Drinking Water Protection Plan but has not yet achieved substantial implementation [10]
 - 3. The water system/community has developed detailed risk-reduction plans for one or more of the high-risk potential contaminant sources within their source area or has a certified Drinking Water Protection Plan and has already achieved substantial implementation [5]
 - 4. The water system/community has developed detailed risk-reduction plans to address moderate risks within their source area [3]
- B. The project involves multiple public water systems, addresses local land-use planning issues, or is connected to regional water quality issues and strategies [10]

5. Risk reduction potential: [maximum 30 points]

- A. Project specifically focuses on priority pollutants
 - 1. Surface water systems: turbidity, sediments, microorganisms, nitrates, volatile organics, pesticides, non-SDWA toxics (defined in Section 3 above) [10]
 - 2. Groundwater systems: nitrates, microorganisms, volatile organics, pesticides, non-SDWA toxics (defined in Section 3 above) [10]
- B. Based on the project description submitted in the Letter of Interest, the project has a reasonable likelihood to reduce the risk or pollutant load from identified potential sources of contamination. Anticipated project results will be evaluated based on similar project successes, as well as effectiveness and ease of implementation. The reduction of pollutants must be expected within a reasonable timeframe. Pollutants to be addressed must be those of toxicological concern at the current levels or spikes, detected either in the source area or at the intake/well. [20]

For More Information:

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Background Information

The Oregon Health Authority (OHA), in collaboration with the Department of Environmental Quality (DEQ) are pleased to announce the availability of Drinking Water Source Protection Loans and Grants. Loans and grants are available to implement projects to protect existing sources of public drinking water.

The 1996 Federal Safe Drinking Water Act (SDWA) Amendments provided the means to initiate protection of public drinking water at its source in Oregon. In developing those amendments, the US Congress recognized the need to go beyond the traditional emphasis on treatment to address the new challenges to provide clean drinking water. The SDWA amendments mandated that states conduct “source water assessments” for all public water systems. These assessments include delineating the source areas for all groundwater and surface water-supplied public water systems and identifying potential sources of contamination for drinking water in each state. Source Water Assessments were required for all federally defined systems i.e., where people live (community), where they work or go to school (non-transient non-community) and where they visit, e.g., campgrounds, restaurants, etc. (transient non-community water systems).

To meet the federal requirements, OHA and DEQ formed a partnership to complete source water assessments for the public water systems in Oregon. The active list of public water systems in Oregon as of 1999 included 2656 federally-defined public water systems. Of those, 1171 were community or non-transient non-community systems, requiring a full assessment and report. Transient water systems received a limited assessment and streamlined report. The required source water assessments were completed in Oregon in June 2005.

The Source Water Assessment Reports were prepared and provided to each federally-regulated public water system that was in existence in 1999. Each report includes maps that identify the geographic area that supplies the public water system, as well as locations of the potential contaminant sources (natural and man-made) that may affect their water quality. The assessments identify potential sources of contamination from both non-point and point sources.

Source water assessments are the foundation for drinking water protection planning. There are no federal or state requirements for developing protection plans as a follow-up to the assessments, but OHA and DEQ provide technical assistance to communities that choose to move beyond the assessments and develop and implement drinking water protection strategies. These strategies can be prepared either by a consultant or the community. In either case, strategies should be developed with the assistance and input of stakeholders and local leaders. With agency assistance, the local community can use the assessment results to voluntarily develop a management approach to reduce the risks of contamination, or simply elect to implement pollution reduction strategies within their source area.

The primary incentive for local communities to voluntarily implement drinking water protection is the benefit of a more secure source of high quality water. Other incentives include lower costs to the public by: (a) a reduction in OHA public water supply monitoring requirements, and (b) reduced likelihood of costs for replacement and/or treatment of contaminated drinking water. It is extremely expensive to treat contaminated drinking water or to find an alternative source should a water supply be lost because of

contamination. Long-term assurances of a safe and adequate drinking water supply also helps to protect property values and preserve the local and regional economic growth potential for the area.

State agencies realize that most public water providers are not able to develop or implement strategies to protect their source water without assistance through low interest loans or grants. Many public water providers also need technical assistance from state staff. Oregon OHA and DEQ are committed to providing as much assistance as possible to achieve pollution prevention or reduction activities to reduce the risk of contamination. Agency staff can assist in planning for protection, or choosing the most cost-effective reduction measures and locations. After public water systems receive loans or grants, staff resources are also available to assist in implementation of the funded strategies.

Attachment A: Drinking Water Source Protection Loans & Grants Process and Approximate Timelines.

