

Source Water Protection Plans

By Mary Baker, OAWU Source Water Technician

Researching information for my new Source Water Protection Specialist position at the Association, of which I started 18 days ago, revealed numerous programs used by water system utilities to enhance provision of safe reliable drinking water. There are so many in fact, that I had to start taking notes to keep them all straight and to see how they worked together to address water system needs. With all these programs, assessments and surveys facing water systems, some that are necessary and others that are available to them, how does the source water protection plan (SWPP) stack up. Here is a description of some of the programs available.

- **Wellhead Protection Program (WHPP)** – Is a pollution prevention and management program designed to protect ground water-based sources of drinking water. It requires delineation, contaminant source inventory, and source management.
- **Sanitary Surveys** – An evaluation and documentation of the capabilities of a public water system to continually provide safe drinking water and identify deficiencies.
- **Sole Source Aquifer Program (SSAP)** - Designated groundwater SSA's are the sole source of a community's drinking water system, with few or no alternative resources. This designation protects an SSA by requiring U.S. E.P.A. review of any federally financed projects proposed within the designated area.
- **Nonpoint Source Program** – The largest source of water pollution in Oregon's rivers, lakes and streams comes from surface water runoff. This program helps to reduce non-point source pollution in the watershed.
- **Watershed Protection Program** – A strategy for effectively protecting and restoring aquatic ecosystems and protecting human health. This strategy has as its premise that many water quality and ecosystem problems are best solved at the

watershed level rather than at the individual water body or discharger level.

- **Vulnerability Assessments and Emergency Response Plans** – Community water systems need to conduct a vulnerability assessment and develop an emergency response plan based upon “..a terrorist attack or other intentional acts intended to substantially disrupt the ability of the system to provide safe and reliable supply of drinking water.”
- **Underground Injection Control (UIC)** – The UIC program regulates the injection or disposal of waste into the subsurface to protect drinking water sources from being contaminated.
- **Comprehensive State Groundwater Protection Program (CSGWPP)** – the CSGWPP is designed as a comprehensive management tool for states to use to integrate all programs which affect ground water quality. The use of this program will allow better water system management decisions to be made.
- **Source Water Assessment Plan (SWAP)** - Authorized in the 1996 Amendments to the Safe Drinking Water Act this assessment process will inventory contaminants and assess the water system's susceptibility to contamination and inform the public of the results. It requires source area delineation, source inventory, susceptibility determinations and public participation. These plans address surface water sources as well as groundwater sources.

Source water assessments take into account any information compiled about the water system in other programs, plans, assessments and surveys. Therefore, they are a valuable tool for drinking water operators and system managers. Drinking water, which may be from ground water, surface water, or both, is vulnerable to contamination. Contamination can cause a community much expense, time, stress and heartache as well as creating a potential

public health risk. Mitigating contamination or finding an alternate supply of drinking water is complicated, costly and potentially impossible. These assessments will help drinking water system operators and managers plan for the protection of their source water from contamination.

The State of Oregon is responsible for ensuring that all public drinking water systems receive a source water assessment. The Oregon Department of Environmental Quality and the Oregon Department of Human Services are responsible for completing the assessments. Many source water assessments have already been completed but there are many to be done too. You can find out if a source water assessment has already been completed for your drinking water system by using the following web site addresses.

There are two links to the Department of Human Services web site for groundwater source water assessments, one for community systems and one for transient systems:

- Community Systems:
<http://www.ohd.hr.state.or.us/dwp/docs/gwater/cnreport.pdf>
- Transient Systems:
<http://www.ohd.hr.state.or.us/dwp/docs/gwater/tcreport.pdf>

The Department of Environmental Quality also has a web site of completed surface water source water assessments which can be accessed using the following web site:

- <http://www.deq.state.or.us/wq/dwp/SWACompleteSW.asp>

Source Water Protection Plans (SWPP) -

Communities can use the SWA prepared by the DEQ and DHS in the development of a Source Water Protection Plan. A SWPP is very similar to the Drinking Water Protection Plans recommended by DEQ and

DHS. A complete source water protection plan includes:

- A map of the source water protection area
- A source water inventory
- A potential contaminant inventory
- A definition of each potential contaminant source/entity's authority and responsibility in the event of contamination
- Source water contamination preventative management plan
- A contingency plan providing for a strategy for supplying safe water in the event of contamination or disruption of service
- The development of a steering committee and public education efforts to follow through on preventative measures

SWPP's can assist your community in planning for and developing contamination protection for your drinking water source. OAWU can assist you in the development of these plans. Please review this information and if you have any questions or would like assistance developing a SWPP call our office at 503-873-8353 and I will be more than happy to assist you. More information about all these programs can be found on the following web sites:

- <http://epa.gov/safewater/>
- <http://dhs.state.or.us/publichealth/dwp/>
- <http://www.deq.state.or.us/wq/dwp/>
- <http://www.nrwa.org/>