

Wellhead Protection Program

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The last article, "Regulation Ideology, "Fall 2003", was written to bring about a differing view of the regulations and why they should carry so much importance in our lives as water purveyors. Specifically mentioned in the article was a voluntary program, that has not been gaining much enthusiasm for implementation, and that program is the Wellhead Protection Program (WHPP). In this article a sketch of the WHPP will be attempted to paint a clearer picture of what the program involves and how much effort is required from the public water system to establish the plan.

Step One:

The efforts to establish a WHPP can begin by anyone who is served by the public water system. A single person or group wishing to start a WHPP should contact the authority who manages activities for the water system or the committee who oversees the ordinances within the city, county, special district or Indian Tribe. Typically, a public works director, water system operator, Board of Directors or City personnel will oversee the WHPP.

Step Two:

This next step is called the Local Wellhead Assemble Team development, which focuses on 1) equal representation of all segments of the community, 2) serve as a sounding board for the public, and 3) provide a foundation of leadership for educating the public and implementation of the WHPP.

Examples of Team Participants: Community organizations, elected officials, farmers, businesses, public works, teachers and citizens of the water system.

Step Three:

Finger prints the area that is the surface directly above the section of the aquifer that supplies groundwater to the well. The area required for identification purposes is the capture zone that comprises the movement of water during a 10 year time of travel. This step of the program is completed by the Oregon Health Department-Drinking Water Program. The population served will determine the minimum effort put forward in

finger printing the area and obtaining a state certified plan.

Step Four:

Identify, locate and list an inventory of potential sources of contamination (PCS) will be our next step in the completion of the WHPP. Looking at land usages and activities will assist in better management efforts to assure the drinking water remains the highest quality. Some PCS are regarded as "non-point source" and are a concern on an area wide basis. Pesticides and nitrates are categorized under a "non-point source" inventory list.

A "point source" contaminant is usually thought of as an industrial facility, waste disposal sites and or someplace petroleum products are stored, i.e. "gas station". At times, either large quantity accidental spills or day-to-day operations make up a source of contamination. Volatile organic compounds (VOC) and petroleum compounds are the main focus in reviewing "point source" contaminants. Potential contaminant source inventory list is compiled by the Department of Environmental Quality and is available by request. You may have noticed that the word POTENTIAL has been underlined. It is done so in order to relay the message that all contaminant sources are potential and not attentive on placing blame. The WHPP raises the level of awareness in regard to establishing a proactive approach to managing water resources as opposed to a reactive approach. The cost to incur a clean up of groundwater will far supercede the cost in implementing a WHPP.

Step Five:

Review of the PCS inventory will give you an idea of what sources should be considered high or moderate risk to contaminating future water supplies. While studying the inventory list, the proactive approach is pollution prevention / best management practices (BMPs). These practices are developed for specific operations that serve to reduce or better handle hazardous materials. BMPs are used to describe operational practices, such as spill prevention and good housekeeping. If a business in your area shows conscious effort towards clean operations, it should be recognized as such. BMPs are a way to volunteer information to incorporate into industry to improve efficiency, reduce product usage or disposal amounts as well as reduce liabilities associated with spills.

Step Six:

This step can be branded with many labels, such as contingency plan, emergency response plan, vulnerability plan etc, etc. In regard to the WHPP, the term "Contingency Plan" calls out for the methods used by the water purveyor in response to the contamination of the water or disruption of the water supply to the public consumers. This step of the WHPP outlines the coordinated efforts with those associated with bringing water back on line, clean up efforts of a major chemical spill and other aspects such as availability of equipment and contract services. This is simply drawing a chart of the chain of command of those people associated with responding to an emergency, whether it is a fire or a large chemical spill.

Step Seven:

Many communities in Oregon have experienced tremendous growth since the last consensus of 1990. How does this growth affect the water system? Water systems should explore the development of additional sources of drinking water. This step of the WHPP examines the area for possible future sites that may provide quality drinking water.

Step Eight:

The last step in the WHPP is to submit the report to Department of Environmental Quality for review and certification. Four of the significant incentives for state certification include:

- a. A community that gains plan certification can have confidence that the plan they implement will have a positive impact on the future of their drinking water resource. This plan will likely have credibility throughout the community. *
- b. Communities with certified wellhead protection plans will have their monitoring requirements for organic chemicals (VOCs and SOCs) reduced by 50 percent; from every three (3) years to once every six (6) years. Further reduction may be possible through a use and susceptibility analysis through the Oregon Health Division.*
- c. Communities with an implemented / certified plan may have greater success in securing funding for upgrading their water

system if necessary because lenders will view a protected water system as less of a lending risk than an unprotected system.*

- d. Gaining state certification of a community wellhead protection program will ensure that all requirements associated with the Oregon Department of Land Conservation and Development's land use regulations are addressed. *

* The above were taken directly from the Oregon WELLHEAD PROTECTION PROGRAM Guidance Manual, second printing.

There you have it, a program when completed, will give a better understanding to those involved within their community. How much time and effort will be required to complete a plan? That will depend on the size of the system, number of potential contaminants, as well as the depth that the public water system wants to pursue such a plan. Admittedly, a majority of the plan is developed by the state agencies, OHD and DEQ. The groundwater technician will assist your water system in compiling the data, distributing information and make an attempt at keeping you abreast of recertification procedures. Sounds like a stroll down memory lane, walk through the park and a tip toe through the tulips. It will require work, but the program in its entirety is not as confusing at it may seem.

A simple outline of the wellhead protection program. A program that has been in existence since 1994, yet only nine (9) public water systems have obtained certification. Will your public water system be number ten (10)? Let us assist you in ground and surface water protection programs, so a great sense of community effort will ring throughout your neighborhood. The best of everything that life has to offer. Mr. OpTIMist.

A word of appreciation for those who have developed the Oregon Wellhead Protection Program Guidance Manual, since much of this article was written from the information provided from the manual.