

Wellhead Protection: Identifying Potential Contaminants
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The most effective way to protect the groundwater used as a public water supply is to establish a local wellhead protection program. Your wellhead protection area map is the starting point for developing your own unique and effective wellhead protection program that will protect the quality of the drinking water you provide and the investment that you have made in your drinking water wells. Quite a few communities have taken that next important step in developing a wellhead protection program by conducting a Contaminant Source Inventory (CSI). Performing a CSI involves identifying and documenting information about potential sources of groundwater contamination within the boundaries of your wellhead protection area. I have had the opportunity to help quite a few communities with this activity during the past year. Typically, I work with the local water operator. Depending on the size of the wellhead protection area and the number of potential contaminants we encounter, this process may take anywhere from half a day to several days to complete. It is a relatively easy task. Here is a quick summary of how a CSI is performed.

As I mentioned, a CSI involves identifying potential sources of contamination. To get things rolling I like to review your Source Water Assessment (SWA), which was sent to you by NDEQ, and determine which items on the SWA are located within your wellhead protection area. This will give us an initial list of potential contaminants to document. Then, the water operator and I will travel all of the streets, roads, and highways that intersect the wellhead protection area and look for additional activities, facilities, structures, and land uses that might somehow cause groundwater pollution. At each such location, we will stop for a few minutes to record some basic information about the potential contaminants we have identified. If possible, it is useful to speak with a property or business owner to gain accurate information about the types and quantities of materials of concern. We will also use a handheld GPS unit to mark the location of potential contaminants. The GPS coordinates can later be integrated into your wellhead protection area map to create a visual record of our efforts. This is also useful in determining which contaminants pose the most significant risk to your municipal wells.

Something to keep in mind is the need to update your CSI at a reasonable interval. Every five years is appropriate for many communities. So if you need to conduct a CSI for the first time, or if you are ready to do a five-year update, feel free to give me a call. Thanks for your time and I look forward to hearing from you.