

Drinking Water Source Protection Update

October 2008



Water suppliers (left to right) for the Villages of Yorkville (Chad Buksa), Mt. Pleasant (Dave Call), Tiltonville (Carl Sgalla), Dillonaire (Lyle Zerla), Brilliant Water & Sewer (David Roush) and Mingo Junction (Barry Edwards and George Stoddart).

Jefferson County Water Suppliers Complete Protection Plans

Six public water suppliers in Jefferson County helped develop a multi-session Source Water Assessment and Protection (SWAP) planning workshop that culminated this year in the completion of endorsable source water protection plans. Working with source water protection staff from Ohio EPA's Southeast District Office and the Ohio Rural Water Association, the operators participated in 13 meetings over two years, and completed their plans using the small systems template. Ohio EPA endorsed all six plans in June 2008. Each operator was awarded five continuing education contact hours on endorsement. Due to the success of this workshop format, the source water protection program has adopted it for outreach efforts statewide.

More Source Water Protection Plans Endorsed in 2008

In addition to the Jefferson County systems, Ohio EPA congratulates the following villages whose local source water protection plans were endorsed by Ohio EPA in State Fiscal Year 2008.

Amanda	Baltimore
Bremen	DeGraff
Dunkirk	Holloway
Kalida	Lithopolis
Martins Ferry	Millersport
New Miami	New Richmond
North Lewisburg	Pleasantville
Pomeroy	Spencerville
Sugar Grove	Syracuse
West Mansfield	

continued on page 2...

Highlights

- Jefferson County Completes Protection Plans
- More Source Water Protection Plans Endorsed in 2008
- SWAP Technical Assistance and Outreach
- Source Water Assessment Integrated Into New Well Siting
- Ohio River Systems Protection Plan Template
- Great Lakes Approach to Source Water Protection
- Alternative Energy and Source Water Protection
- Drinking Water Source Protection Sorrows and Successes

Source Water Protection Plans *continued from page 1*

Ohio EPA also endorsed protection plans for the following entities:

City of Ashland
Fairfield County Utilities
Geauga City Services Center
Greenfield Township Water District
City of Orville
City of Oxford
City of Pickerington
City of Springboro
Western Water Company
Wright-Patterson Air Force Base

Together, these systems provide water to almost 200,000 Ohioans. Throughout Ohio, 105 systems now have endorsed source water protection plans.

SWAP Technical Assistance and Outreach

District SWAP staff continue to assess new systems as they come online, unless the systems opt to do it themselves. From July 2007 to July 2008, 75 source water assessment reports were completed and mailed out. Of these, the majority were for transient systems pumping small amounts of water. Additional outreach activities completed during this time are listed below.

Workshops

Multi-session source water protection planning workshops were completed for Jefferson, Trumbull and Logan county municipalities. New workshops were initiated for Medina, Holmes and Wayne county municipalities as well as communities in the Maumee River watershed, the Lower Muskingum watershed and the Sandusky River watershed.

Individualized Outreach

Ohio EPA staff attended more than 80 meetings with 45 public water systems operators or local source water protection teams, where they provided information and guidance on developing or implementing a local source water protection plan.

Certificates of Recognition

Ohio EPA staff returned certificates of recognition to 87 public water systems that sent in an endorsable source water plan (municipal systems) or checklist (nonmunicipal systems).

Web Page

The source water assessment and protection Web site (www.epa.state.oh.us/ddagw/pdu/swap.html) was accessed 6,246 times – more than twice the number of times accessed last year.

SWAP Secure Web Page

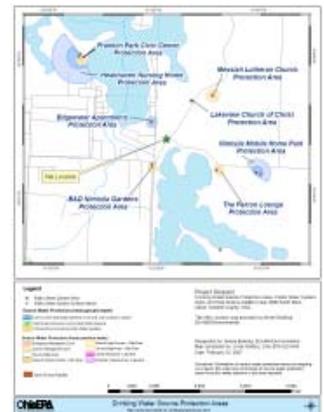
During State Fiscal Year 2008, 117 new users registered for the source water protection secure Web page, bringing the total number to 323.

Wellhead Protection Reports Scanned

About 95 percent of the assessment reports done by consultants under wellhead protection (before 1999) were scanned in and now can be accessed through the secure Web site.

SWEET Outreach

County-based Source Water Environmental Education Teams (SWEETs) conducted 96 outreach events throughout the state, reaching more than 9,853 Ohioans through a variety of venues. For more information, go to www.epa.state.oh.us/ddagw/swap/SWEET/.



Technical Assistance

Ohio EPA staff responded to 558 technical assistance requests for site-specific maps showing the locations of source water protection areas near regulated facilities. Average response time was less than two days and 45 percent of the responses were sent out the same day the request was received.

What's New...

Source Water Assessment Integrated Into New Well Siting

Ensuring an adequate drinking water source is the first barrier in the “multiple-barrier approach” to providing safe drinking water. It makes sense then to conduct source water assessment before a new well is installed. The Division of Drinking and Ground Waters is developing internal procedures to integrate source water assessment into the initial site visit and evaluation, which typically occurs before a new well is drilled. The procedure allows for private consultants to complete the source water assessment where desired, but

continued on page 3

What's New

continued from page 2

for most nonmunicipal wells the assessment typically will be conducted by district SWAP staff. The completed assessment report will be sent to the owner/operator shortly after the division formally approves the detail plan.

Ohio River Systems Protection Plan Template

A source water protection plan template is now available for systems that provide water from the Ohio River. This template was developed jointly by the Ohio River Sanitation Commission (ORSANCO), the City of Cincinnati and Ohio EPA. It includes standard language describing the early warning, emergency response, water quality monitoring and educational activities routinely conducted by ORSANCO.

In 2008, ORSANCO presented the template at regional meetings of Ohio River water suppliers from Pennsylvania to Illinois. The Ohio SWAP Program's follow-up outreach efforts will focus on coordinating source water protection efforts among communities on opposite banks of the river.



Spills from barges transporting toxic materials are the greatest threat to drinking water derived from the Ohio River.

Great Lakes Approach to Source Water Protection

Over the past year, Ohio EPA staff worked with counterparts in other Great Lakes states and Ontario to coordinate source water protection expectations for systems that withdraw water from the Great Lakes.

"Offshore systems" are systems with intakes significantly distant from shore and with no known land-based impacts. These systems are expected to have, at a minimum:

- (1) a contingency plan that addresses spills from shipping and recreational boating near intakes; and
- (2) discussions of source water protection in the annual consumer confidence report (CCR).

"Shoreline systems" are systems with intakes near the shore or systems with measurable land-based water quality impacts. In addition to meeting the contingency plan and CCR requirements of offshore systems, these systems also are expected to propose protective strategies to prevent water quality impacts from land-based sources.

The 2006 Ohio EPA guidance developed for surface water systems using inland water bodies (www.epa.state.oh.us/ddagw/Documents/swap_sw_protplan_FINAL.pdf) is relevant for these types of protective measures recommended for inland streams, protective strategies may need to be developed for such activities as confined and open-lake dredge disposal sites, shoreline stockpiling of materials, bridges over estuaries, nuclear power plants and marinas.

In the next year or so, Ohio EPA will begin outreach to Ohio's Lake Erie-based water systems to assist them in developing local source water protection plans that, at a minimum, meet these expectations.



A September 2008 satellite photo shows blue-green algae coating much of the Western Lake Erie basin. For drinking water suppliers, algae creates numerous problems that are costly to treat.

Alternative Energy and Source Water Protection

Everyone knows that alternative energy is a hot topic these days. But did you know that some processes for generating energy can also contribute significantly to source water protection?

One example is the generation of biogas from animal manure to produce heat or electricity. With a manure digester, farmers no longer have to regularly apply manure to the fields or pay someone to haul it away when their manure lagoons fill up. Instead, it goes to the digester where it produces energy that can heat and/or fuel the farm or be sold year-round to the local utility grid. This has the side benefit of reducing the levels of nitrates washed into Ohio's waterways — a major concern for public water systems that provide drinking water from surface water bodies surrounded by farmland.

In addition, manure digesters greatly reduce emissions of methane — a greenhouse gas — into the atmosphere. Odor is minimized, and the remaining ash can be sold for bedding or fertilizer. Unlike corn, wind or solar power, this energy source is not dependent on weather conditions. Finally, the operator can sell carbon credits on the Chicago Climate Exchange.

This technology may be especially effective in areas with a high density of confined animal operations. More information about manure digesters and other alternative energies is available at www.epa.gov/agstar/resources/protocol.html.

Drinking Water Source Protection Sorrows and Successes (from the SWAP Scrapbook)

... on the value of vigilance
and public awareness

Sorrow - SEWAGE LEAK

Several years ago, a broken sewer line released raw sewage into Buckeye Lake over the course of at least several days before the spill was reported. After the spill was discovered, the director of the county water and wastewater department expressed regret that no one in the area was paying attention, saying, "It could have all been avoided if [somebody]'d just called."

Success - SOLVENT REMOVED

A northeastern Ohio city conducts frequent visual inspections of its protection areas, much of which are privately owned and extensively developed. One recent inspection uncovered several unprotected 50-gallon drums of paint thinner within the one-year time-of-travel area. Through a meeting with the city fire inspector and the company safety manager, the situation was quickly rectified.

... on the value of pre-emptive zoning
to protect natural resources

Sorrow - MINING AN AQUIFER

Several years ago, many folks in a central Ohio village were dismayed to learn that property within the village's source water protection area had been sold to a sand-and-gravel mining operation. Ohio EPA has no regulatory jurisdiction over such operations, and the company's application fulfilled the Ohio Department of Natural Resources' permit requirements. If the village had previously zoned this area as a nonindustrial area, they might have been able to direct this operation away from the wellfield. Eventually the company will move on, leaving behind a quarry lake that will continue to provide drinking water to the wells but without the natural filtration that the sediments once provided.

Success - SAVING A PARK

Several years ago a northeastern Ohio city was approached by developers who wanted to build a retail development in the park that surrounded the city's water wells. The city has a source water protection plan that was endorsed in 2001, and is very attentive to threats to the drinking water. Largely because of the proximity to the wells, the city leaders decided to turn the proposal down.



Protecting
Ohio's Drinking
Water Sources

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Looking Ahead...

Proposed Rule Requires Source Water Protection for New Wells

Proposed Ohio Administrative Code Rule 3745-91-10 will require systems adding a new well to develop (or update) a drinking water source protection plan. The rule will be applicable to most community water systems that serve a political subdivision of Ohio (cities, villages, townships, counties, etc.). The rule is part of a package of water well standards revisions being prepared for initial filing. They are expected to become effective in early 2009.