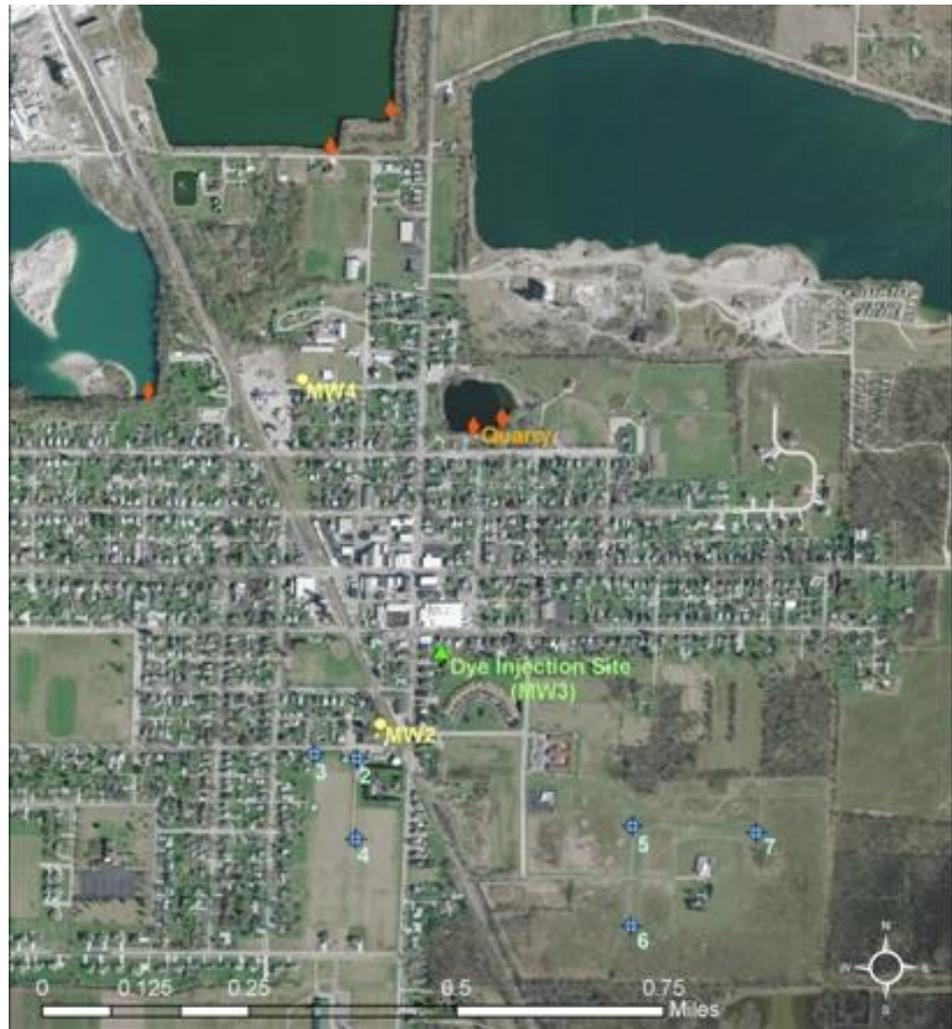


## Drinking Water State Revolving Fund Wellhead Protection Set-aside Annual Report Program Year 2010



Ted Strickland, Governor  
Lee Fisher, Lt. Governor  
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Ohio EPA utilized the Wellhead Protection Set-aside to fund activities specified in the Drinking Water State Revolving Funds Intended Use Plan for Program Year 2010 (DW SRF IUP). These funds were used to complete source water assessment and wellhead protection activities for public water systems; assist communities developing wellhead protection/source water protection plans; conduct source water protection education and outreach; provide technical assistance; and general administrative and information management support. This report summarizes the annual expenditures, goals and objectives of the Wellhead Protection Set-aside, and program accomplishments by Activity as listed in the DW SRF IUP for Program Year (PY) 2010.

### **A. Expenditures and Full Time Equivalent (FTEs)**

Ohio EPA obligated approximately \$983,000 to fund 8.6 full time equivalent staff to support implementation of the wellhead protection and source water assessment activities specified in Ohio's DW SRF Intended Use Plan for PY 2010.

### **B. Goals and Objectives**

The goals and objectives for the Wellhead Protection Program for PY2010 were as follows:

1. Complete source water assessments for new public water systems, and refine delineations in potential

karst/shallow fractured bedrock hydrogeologic settings;

2. Assess and conduct source water quality investigations to evaluate potential contaminant sources impacting source water quality for water systems with contaminant concentrations near or exceeding a MCL;
3. Encourage and provide direct technical assistance to public water systems in development and implementation of source water protection plans;
4. Conduct general public outreach and education and disseminate source water assessments to public water systems and the public via a secure web site;
5. Collaborate with State environmental programs to develop and implement source water protection strategies; and
6. Provide general program support.

### **C. Overview of Program Accomplishments**

During PY 2010, the program has focused on promoting protective strategies, conducting training workshops, providing direct technical assistance to public water system officials, developing education and outreach activities, completing source water assessment reports for new public water systems, re-delineating some of the wellfields in karst geologic settings and QA/QC of the source water

assessment information geographic information system databases.

During PY 2010, 104 source water assessment reports were completed and mailed out. Of these, 40 were revisions of earlier source water assessment reports due to new wells at existing wellfields, changed pumping rates, and other types of changes that warranted a revision of the earlier report.

Staff completed multi-session source water protection planning workshops for the Village of Wilmot, the City of Logan, Adams County Regional Water, the Medina County Southern Water District, the City of Minerva, Ohio American Water Company (14 small systems), the City of Akron, the City of Alliance, the Village of Gnadenhutten, Le-Ax Water District, the Leading Creek Conservancy District, the City of Ashtabula, the Village of Tuscarawas, and the Village of Orwell.

In addition to the workshops, staff reported one or more meetings with 26 public water system operators or local source water protection teams, where they provided information and technical guidance on developing or implementing a local source water protection plan.

Twenty-six source water protection plans developed by public water systems were received by the Agency during PY2010 and 24 of the plans were endorsed by the agency within that

timeframe. As of June 30, 2009, 43 percent of all community water systems covering 64 percent of the population served are substantially implementing source water protection measures under the criteria described in Ohio EPA's program.

Finally, staff responded to over 496 technical assistance requests for site-specific maps showing locations of source water protection areas near existing or proposed waste or product management and storage facilities. They also reviewed 58 coal or industrial minerals mining applications for potential drinking water impacts.

#### ***D. Program Accomplishment by Activity***

Accomplishments for each of the program activities identified in the PY 2010 DW SRF IUP are summarized below:

**Activity 1 - Complete source water assessments for new public water systems and refine delineations in potential karst /shallow fractured bedrock hydrogeologic settings.**

#### **Proposed Outcome/Product**

1. Complete source water assessment reports for new public water systems and systems requiring revised reports.
2. Review for endorsement assessment reports completed by public water systems.

3. Re-delineate and re-inventory source water areas, as needed.

### **Actual Work Completed**

- Completed 104 WHP/SWAP reports for public water systems using ground water.
- Revised delineations for public water systems located in karst areas of southwest and central Ohio.
- Assisted Drinking Water inspectors with siting 37 new wells, in accordance with new well siting process (see Activity 5).
- Provided refresher training in GFLOW to Ohio EPA source water protection staff.

### **Supplemental Environmental Benefits**

Mapped source water assessment and protection areas and incorporated into a statewide geographic information management system, which facilitates identification and association with other environmentally regulated activities.

**Activity 2 – Assess and conduct ground water quality investigations to evaluate potential contaminant sources impacting source water quality for water systems with contaminant concentrations near or exceeding a MCL.**

### **Proposed Outcome/Product(s)**

1. Statewide evaluation of water quality compliance data to establish priority public water systems

2. Study Plans
3. Sample Collection and Analysis
4. Summary Reports
5. Identify probable cause of contamination.

### **Actual Work Completed**

- Completed second (confirmatory) dye-trace study at Gibsonburg, completed analysis, and wrote up results.
- Presented results of dye-trace study at Region V Source Water Protection Managers Meeting (Oct. 13-15), the Water Management Association of Ohio's Fall Conference (Nov. 4-5) and several Agency meetings.
- Submitted abstract for, and developed presentation on, the Gibsonburg dye-trace study for the 2010 Midwest Ground Water Conference (to be held in October, 2010)
- Continued developing guidance for delineation of protection areas in shallow karst settings of northwest Ohio.
- Drafted new delineations for five municipal systems in northwest Ohio.

### **Supplemental Environmental Benefits**

Information from the dye-trace studies will be used to provide a more scientifically defensible time-of-travel area for systems drawing ground water from karst aquifers. This information also can be used by other Ohio EPA programs and other agencies, such as

the Ohio Department of Natural Resources and the U.S. Geological Survey.

**Activity 3 - Encourage and provide direct technical assistance to public water systems in development and implementation of source water protection plans.**

**Proposed Outcome/Product(s)**

1. Local development of source water protection plans and local implementation of protective strategies.
2. Up to ten local/regional source water protection workshops, led by Ohio EPA.
3. Direct technical assistance to public water systems developing local source water protection plans.

**Actual Work Completed**

- Reviewed 24 municipal Source Water Protection Plans; all were endorsed by the Agency. See list in Appendix 1.
- Assisted in the development of source water protection planning. Not including their participation in workshops (see below), District staff documented one or more meetings with 26 public water system operators or local source water protection teams, where they provided information and guidance on developing or implementing a local source water protection plan. See list of public water systems in Appendix 2.

- Staff completed multi-session source water protection planning workshops for the Village of Wilmot, the City of Logan, Adams County Regional Water, the Medina County Southern Water District, the City of Minerva, Ohio American Water Company (14 small systems), the City of Akron, the City of Alliance, the Village of Gnadenhutten, Le-Ax Water District, the Leading Creek Conservancy District, the City of Ashtabula, the Village of Tuscarawas, and the Village of Orwell. These workshops are targeted to local organizations, community officials and public water system operators. Eligible participants receive one contact hour per session (with 5 sessions planned), which are awarded upon submission of an endorsable protection plan.
- Received 95 Source Water Protection Plan checklists from non-municipal systems.
- Returned certificates of recognition to 119 public water systems that had sent in a source water protection plan or a checklist.
- Supported and collaborated with the Ohio Rural Water Association (OWRA) and Source Water Protection Technician in their efforts to assist public water systems developing protection plans. Attended ORWA Annual SWAP workplan meeting in March 2010.
- Substantially revised the Small Systems Template for Source Water Protection Plans and made it

available for downloading from the SWAP website.

**Activity 4 - Conduct general public outreach and education and disseminate source water assessments to public water systems and the public via a secure web site.**

#### **Proposed Outcome/Product(s)**

1. Continue development and maintenance of secure web page to access reports.
2. Document management.
3. Respond to technical assistance requests.
4. Update source water assessment and protection web pages.

#### **Actual Work Completed**

- During SFY10, 153 new users registered for the Source Water Protection secure Web page, bringing the total number to 557. The registered users are primarily environmental consultants, but also include state, local, and federal agencies, regulated communities, schools, and non-profit organizations representing 13 states and the District of Columbia.
- Continued to add new SWAP reports to the DDAGW intranet, where they are available to all Ohio EPA staff.
- Continued to QA/QC the statewide geographic information system data layer of Source Water Protection areas and well locations.

- Initiated a special QA/QC project to complete updates to delineations that had been originally completed by consultants under contract to municipalities.
- Statewide, 54 SWEET teams provided ground water education and information about local source water protection planning to audiences in 58 counties. From July 2009 to June 2010, 41 teams participated in a total of 169 events reaching 18,428 people. Since the inception of SWEET teams in October 2005, SWEETs have reached out to almost 65,000 people.  
[www.epa.state.oh.us/ddagw/swap/SWEET/index.html](http://www.epa.state.oh.us/ddagw/swap/SWEET/index.html)
- Continued to update the SWEET Web page, fact sheet, and listserv to provide continued support and education to SWEETs, encourage statewide communication among the teams, and advertise the availability of teams to the general public. The web page can be accessed at the following address:  
<http://www.epa.state.oh.us/ddagw/SWEET/index.html>
- Completed the 2009 SWAP newsletter, summarizing Source Water Protection accomplishments in Ohio during PY 2009, and posted it on the SWAP Web site in September, 2009.
- The source water assessment and protection web site has been accessed 3,413 times since September 1, 2009. (Due to a

comprehensive overhaul of the Agency's internet during the summer of 2009, counts are not available for the first quarter of PY2010.)

- Responded to 496 technical assistance requests for site-specific maps showing locations of source water protection areas near regulated facilities. Average response time was six hours from receipt of request to e-mailing out the requested map.
- In addition to the above, responded to 58 technical assistance requests for site-specific maps showing locations of source water protection areas near coal or industrial mining sites.
- Participated in ORSANCO outreach meeting in St. Clairsville (Sept., 2009), which presented source water protection to major industrial and municipal dischargers along the Ohio River.
- DDAGW staff were interviewed on ground water flow and source water protection for a 30-minute local TV Cable network show, Trinity Broadcast Network (Oct. 14, 2010)
- Gave presentation (Aug. 2009) on source water protection to group of public water system staff who operate systems using Lake Erie as source water.
- Gave presentation (Feb. 3, 2010) on "SWAP in the 21<sup>st</sup> Century" for the Northeast Four County Regional Planning Commission (NEFCO).
- Wrote and presented a training module for the April 20, 2010

"Envirothon", a regional all-day training for six teams of high school students. The assigned theme was land uses and ground water protection.

- Organized and hosted the annual Region V Source Water Protection Managers meeting (Oct. 13-15)

**Activity 5 – Collaborate with State environmental programs to develop and implement source water protection strategies.**

#### **Proposed Outcome/Product(s)**

1. Development of regulations or guidance
2. Implementation of best management practices

#### **Actual Work Completed**

- Finalized new well rules (OAC 3745-91-10) that require community systems serving 250 or more to complete or update a Source Water Protection plan within two years of OEPA plan approval issued for a new well. These rules went into effect September 1, 2009.
- Created Fact Sheet on new rule, for distribution at state AWWA meeting
- Developed electronic process to track due dates for Protection Plans required via this rule.
- Gave presentation on new rule at state AWWA meeting (Oct. 1, 2009) and Water Management Association of Ohio's fall conference (Nov. 4-5, 2009)

- Distributed new guidance for evaluating new well sites, which incorporates SWAP inventory and preliminary delineations as part of siting. This guidance also requires Agency staff to observe reciprocity, i.e., avoiding siting a well so close to an existing SWAP-restricted activity (such as a landfill) that the siting would threaten the activity's economic viability and the ultimate safety of the well.
- Gave presentations on the new well rules and new SWAP process at six statewide seminars for small systems operators, organized by the Ohio Rural Water Association. The seminars were attended by approximately 400 operators.
- Completed and posted on the SWAP website a set of fact sheets about environmental rules addressing SWAP areas, to cover:
  - landfills near SWAP areas;
  - USTs near SWAP areas;
  - Voluntary Action Program (urban setting designations near SWAP areas);
  - biosolid application near SWAP areas;
  - wastewater spray application near SWAP areas; and
  - animal feeding operations near SWAP areas.
- Participated in Balanced Growth initiative for the Lower Olentangy River watershed, starting in March 2010.
- Coordinated with Farm Service Agency to create an article on the

higher value of CRP in source water protection areas. This was to be provided to County FSA staff for inserting into their monthly newsletters.

- Met with ODNR staff to discuss the advisability of any restrictions on permeable pavements in source water protection areas; drafted guidance on this issue for inclusion in their permeable pavement guidance document.

**Activity 6 – Provide general administrative program support for staff.**

#### **Proposed Outcome/Product**

1. Federal reporting

#### **Actual Work Completed**

- Completed Program Year 2009 DW SRF Wellhead Protection Set-aside Annual Report, September 2009
- Provided general management and supervision to staff, completed annual report and director's quarterly reports; all staff performed time accounting procedures and provided support for accounting, budgeting and purchasing.
- Administrative staff provided general office support to program staff.
- Information management staff provided technical support for staff.

**Appendix 1 – List of Public Water Systems that received Endorsement of a Source Water Protection Plan during PY 2010**

- Village of Convoy
- Village of Payne
- Village of Utica
- Knox County Water
- Village of Chagrin Falls
- Berlin Water Co.
- City of Columbiana
- Village of Garrettsville
- Village of Lodi
- City of North Canton
- Adams County Regional
- Village of Beverly
- Village of Gnadenhutten
- Leading Creek Conservancy District
- City of Logan
- Village of Lowell
- Village of Manchester
- Village of Middleport
- Putnam Community Water
- Tri-County Rural Water and Sewer
- City of Greenfield
- Village of Lynchburg
- Village of Phillipsburg
- City of Trenton

## Appendix 2 – List of Public Water Systems that Ohio EPA Provided Direct Technical Assistance to during PY 2010

- Village of Spencerville
- Village of Convoy
- City of Ottawa
- Village of Payne
- Village of Chagrin Falls
- City of Columbiana
- Village of Lisbon
- City of Canton
- City of North Canton
- Village of Middlefield
- City of Cuyahoga Falls
- Village of Andover
- Village of Granville
- Village of Utica
- Southwest Licking Water & Sewer District
- Oh-American Water-Lakeview
- City of Pataskala
- Fairfield County systems (10)
- City of Logan
- City of Martins Ferry
- City of Nelsonville
- Jackson County Water Co.
- City of Manchester
- City of Trenton
- City of Oakwood
- Clark County-Park Layne
- City of Greenfield