

# STATE COORDINATING COMMITTEE ON GROUND WATER

**To promote and guide the implementation of a coordinated, comprehensive and effective ground water protection and management program for the state of Ohio**

Ohio Environmental  
Protection Agency  
Lazarus Government Center  
Columbus, Ohio 43215-1049

Ohio Department of Natural  
Resources  
Fountain Square  
Columbus, Ohio 43224-1387

Ohio Department of Health  
246 North High Street  
Columbus, Ohio 43266-0588

Ohio Department of  
Commerce-SFM  
8895 East Main Street  
Reynoldsburg, Ohio 43068

Ohio Public Utilities  
Commission  
180 East Broad Street  
Columbus, Ohio 43266-0573

Ohio Department of  
Agriculture  
8995 East Main Street  
Reynoldsburg, Ohio 43068-  
3399

Ohio Department of  
Development  
77 South High Street  
Columbus, Ohio 43266-0413

Ohio Department of  
Transportation  
1980 West Broad Street  
Columbus, Ohio 43215

**August 23, 2011**

**Horace Collins Classroom, Ohio Geological Repository  
Delaware, OH**

*The August 23, 2011 meeting consisted of Agency announcements and discussion of a SCCGW-led Salt Workgroup*

## **ATTENDANCE**

Ohio EPA: Barb Lubberger, Jeff Patzke, Aaron Shear, Mark Stump  
ODNR: Douglas Aden, Jim Raab, Tom Tomastik  
ODH: Rebecca Fugitt  
ODOT: Hans Gucker, Scott Lucas  
PUCO: Sue Daly  
USGS: Ralph Haefner  
OSU Ext.: Cindy Folck

## **AGENCY UPDATES AND ANNOUNCEMENTS**

### ***Ohio Department of Natural Resources, Division of Soil and Water Resources***

Water Quantity Complaint. The division recently received a ground water quantity complaint near Elmore (Ottawa County), where shallow drinking water wells completed in limestone are drying up, possibly related to irrigation of tomato crops. Staff are monitoring water levels via unused domestic wells.

House Bill 231. Other signatories to the Great Lakes Compact and numerous Ohioans protested the Ohio House's recent passage of House Bill 231. This bill relaxed the limits for Ohio users on water transferrals from the Lake Erie watershed, in effect allowing larger amounts of water to be transferred without a permit. Governor Kasich ultimately vetoed the bill. ODNR is working with the governor's office to develop a more acceptable proposal.

Farm Science Review. The 2011 Farm Science Review will be held Sept. 20-22 at the Molly Caren field site near London, Ohio. The division will be demonstrating its Earth Resources Information Network (ERIN) via laptop.

Aqtesolv. The division recently purchased the computer software Aqtesolv, which analyzes data from aquifer tests. A two-day training that is open to other interested parties will be held October 20-21. (See attached).

***Ohio Department of Natural Resources, Division of Geological Survey***

Delaware County Karst Map. The [new karst map](#) for Delaware County will be released on September 8<sup>th</sup>, during a presentation to be held at the Horace Collins Classroom starting at 8:30 am. Approximately 350 sinkholes were identified. The division plans to post this map on the website, and will provide a poster session on it at the Midwest Ground Water Conference in Lexington, Kentucky in October. The next karst mapping project will be for Clark County.

***Ohio Department of Transportation***

Staffing Levels. The ODOT Central Office staff are to be reduced by 40 percent, primarily through attrition and hiring freezes. However, private consultants will be hired to complete projects.

Storm Water Program. ODOT has a statewide Spill Prevention, Control and Countermeasures (SPCC) plan to remove underground storage tanks at its facilities and replace them with aboveground storage tanks.

Snow Removal Research. The University of Akron is conducting research on disposal options for rinse water from salt truck washing in areas where large wastewater treatment plants are not available for diluting the chloride. Recycling and treatment are among the options being considered.

Salt Storage Facility Design. ODOT is increasingly adopting canvas-top structures for its salt storage facilities.

***United States Geological Survey, Ohio Water Center***

Budget. For the remainder of 2011 the budget is adequate, but the situation for 2012 is unknown. Currently, USGS is under a hiring freeze unless special exemptions are given. Additional budget-cutting proposals include eliminating promotions and step increases and a bureau-wide furlough.

Reorganization. As part of a federal reorganization the director of the Ohio Water Center, Jim Morris, will become the director of a new "Ohio and Michigan Commonwealth", splitting his time between the two states.

"Protect Your Ground Water" Day. The National Ground Water Association is promoting September 13<sup>th</sup> as a national "Protect Your Ground Water" Day.

Columbus' Parsons Ave. Wellfield. On July 20<sup>th</sup> dewatering of up to 40 million gallons per day began in one of the sand-and-gravel quarries in the Parsons Avenue wellfield, in preparation for commercial mining of the limestone that underlies the sediments. The water being withdrawn is disposed of in other quarries in the sand-and-gravel aquifer that supplies Columbus' drinking water. Some observers are concerned about possible impacts on drinking water quality from mixing of lower-quality (more mineralized) water from the limestone aquifer.

Ground Water "Flooding". Ground water recently came within two feet of ground surface in Well E-10, which monitors ground water levels in an area in northern Ohio prone to ground water flooding. USGS is still seeking funding for maintenance and continued monitoring of this well.

Observation Well Network Update. Of the 140 observation wells in the statewide network, 25-26 have now been upgraded with new data loggers.

National Monitoring Well Network. The Ohio Water Center has been asked to put together a list of Ohio wells that could become part of a national ground water monitoring well network.

Arsenic Monitoring. USGS staff recently submitted a proposal to the Ohio Water Development Board for funds to monitor arsenic levels in private wells in Licking County. The proposal is scheduled to be considered next week.

New Publications. Recent USGS publications include:

“Using Existing Data to Estimate Aquifer Properties, Great Lakes Region, USA”, by Robert A. Darner and Rodney Sheets, NGW.org

“Fate and Transport of Nitrate in Shallow Groundwater in Northeastern Mississippi, USA”, Heather L. Welch, Christopher T. Green, Richard H. Coupe, Hydrogeology Journal, published online June 28, 2011.

SEAB Shale Gas Production Subcommittee Ninety-Day Report—August 11, 2011, Executive Summary.

WMAO Conference. The Water Management Association of Ohio (WMAO) will hold its annual fall conference on November 16-17. A panel session on the Marcellus and Utica Shales is planned.

### ***Ohio EPA, Division of Drinking and Ground Waters***

Ground Water Quality Fact Sheets. The division is developing fact sheets on the distribution, occurrence, and trends of various ground water quality parameters, starting with radiologicals and fluoride. A detailed version of the fact sheet will be developed for ground water professionals, and a shorter, less technical version for the general public. Both versions will be posted on the Division’s web page.

Nonpotable Well Fact Sheet. The division is also developing a fact sheet and a guidance on the Ohio EPA well construction rules that apply to nonpotable wells, such as irrigation wells and open-loop geothermal wells.

Source Water Protection Survey. Since making the survey available online in late April, over 500 public water systems have responded, a 67% response rate. The survey has two main purposes: to provide U.S. EPA with credible information on which public water systems are “substantially implementing” source water protection strategies; and to provide Ohio EPA with information concerning which strategies are most used, most valued, or most overlooked. This will enable the program to conduct better outreach.

UIC Database. The Division is currently populating a database for UIC Class I and V wells. It is hoped that entry will be complete by early next year.

### ***Ohio Department of Natural Resources, Division of Mineral Resources Management***

Commercial Prospects. Chesapeake Drilling is projecting some 10-15 billion dollars worth of recoverable product in the Utica Shale. The company plans to have 40 rigs in Ohio by 2014, according to its press release. Meanwhile, other oil companies such as Marathon and Shell are scouting the area.

“Induced Earthquakes”. The Underground Injection Control program staff are studying earthquakes thought to be induced by Class II injection of drilling wastes. A report should be available by the end of 2011.

Injection of Water Treatment Wastes. The City of Marysville is still looking at drilling a Class I injection well for disposal of 14.5 million gallons a day of wastewater from its reverse osmosis treatment facility (used to treat public drinking water). Class I wells are regulated and permitted by Ohio EPA.

Reorganization. As of October 1<sup>st</sup>, the oil and gas program will be split out of Mineral Resources Management, to form its own Division of Oil and Gas Resources Management.

### ***Ohio EPA, Division of Surface Water***

Staff Changes. With Gail Hesse’s appointment to direct the Ohio Lake Erie Commission, Trinka Mount will be taking on Gail’s managerial duties and Paul Novak will manage the 401/404 program.

Water Quality Rules Package. The comment period for a major water quality rules package produced 400 pages of comments that the division must now address.

Marcellus/Utica Shale Wastewater. The permit issued to the City of Warren for treating oil and gas drilling wastes at its municipal wastewater treatment plant will expire in January, 2012 and will not be renewed.

Possible Changes to TDS Standard. Currently the federal wastewater quality standard for total dissolved solids is 1500 mg/l, but U.S. EPA is considering halving this. This is causing concern for public water systems using surface water, because for every 10 million gallons of surface water treated to drinking water standards, 1-2 million gallons of “reject water” is produced that must be treated as wastewater before returning it to waters of the state.

### ***The Ohio State University Agricultural Extension Service***

Staff Changes. Bill Lynch is retiring.

Pesticides in Water. According to a recent court order, a NPDES permit will be required to apply any pesticide to water. It is expected that Congress will overrule this.

Stop-Sale Order. U.S. EPA recently issued a stop-sale order for Imprelis, a turf herbicide, due to claims it was damaging Norway spruce, white pine, and other trees around areas where it has been applied. An investigation is underway.

Bedbugs. The State of Ohio requested temporary permission from U.S. EPA to treat against bedbugs using an organophosphate pesticide that was removed from “residential use” but is still approved for outdoor use by certified applicators. Bedbugs appear to have acquired resistance to approved indoor pesticides such as pyrethrins.

### ***Ohio Department of Health***

Winter Irrigation Study. The Sewage TAC has recommended that ODH fund a study of winter irrigation of reclaimed wastewater to determine if runoff occurs on spray irrigated lots during winter conditions. This research is being conducted to address concerns raised by Ohio EPA on the use of spray irrigation of treated wastewater for homes.

Oil/Gas Health Registry. ODH is conducting a review of health concerns related to oil and gas drilling, and is working with Pennsylvania to set up a multi-state health registry, benchmarking off a pilot effort in a four-county area of northeastern Pennsylvania.

Water Well Registration. The annual fall registration of water well drillers is underway.

Lead in Ground Water. ODH is investigating a complaint of high lead levels (up to 19 ug/l) in a domestic well in Darke County. The levels appear to represent actual levels in the ground water and not leaching from pipes or other more common sources.

## **DISCUSSION**

The remainder of the SCCGW meeting was devoted to discussion of forming a “Salt Workgroup” to develop environmental guidance for salt storage facilities and evaluate current state oversight, as directed by the Ohio Water Resources Council. Volunteers were solicited from the SCCGW members in attendance, and representation will be requested from the County Engineers Association, the Ohio Township Association, and salt distributors. Jeff Patzke will lead the workgroup. A kickoff meeting will be scheduled once the workgroup membership is finalized.

## **NEXT SCCGW MEETING**

... will be held October 20<sup>th</sup>, 8:30-11:30 am at ODNR, Conference Room C-4.

### **REMINDER:**

Meeting agendas and final meeting summaries are posted on the SCCGW Web site:

<http://wwwapp.epa.ohio.gov/ddagw/SCCGW/>

Dear Prospective AQTESOLV Student:

Recently, ODNR Division of Soil and Water Resources purchased the AQTESOLV Version 4.5 program for aquifer test analysis. A multiple user site license was purchased with unlimited access for the ODNR employees. Glen Duffield, HydroSOLVE, Inc. the developer of the AQTESOLV program will be presenting the short course here at the ODNR. He will be teaching all attendees how to use the program. The dates for the course will be October 20 and 21. The course outline has been attached for reference. Each individual that attends would have a computer to use during the course with the software loaded and ready to go.

The AQTESOLV software is an authoritative and respected aquifer test analysis program that provides a powerful tool for solving complex groundwater problems using a number of technical solutions. The best way for a number of users to learn the program in the shortest period of time is to have the AQTESOLV software loaded on to their personal work computer and read the help manual prior to attending the course so that you can ask questions as well as get the most from Glen Duffield's presentations. **THIS CAN BE DONE BY CALLING THE HELP DESK AND ASKING TO HAVE THE SOFTWARE INSTALLED ON YOUR PERSONAL WORK COMPUTER. THEN READ THE ATTACHED USER MANUAL THAT COMES WITH THE SOFTWARE PACKAGE.**

As outlined in the short course syllabus, topics cover the pump test options and provide exercises for solving pumping test recovery analysis, single-well tests, and slug tests, along with strategies for overcoming parameter estimation leading to optimum solutions to complex problems in glacial and fractured bedrock aquifers.

ODNR has secured a Purchase Order that will be used to pay HydroSOLVE, Inc. for presenting the short course. **Non-exempt employees can qualify for prepayment from the Union Educational Trust (UET).** The individual costs for attending the short course are reimbursable. **Each employee that does not qualify for prepayment can apply for reimbursement through either the Union Education Trust (for non-exempt employees) or the Exempt Professional Development Program as appropriate. Also, CEU Credit with a certificate of completion will be presented at the end of the Course.**

The greater the number of people that attend the course, the more cost effective the course becomes. It is currently estimated that based on 10 students the course would cost \$350/person. By holding the course here at the ODNR, travel expenses, and room and board costs would be saved. For those that don't qualify for prepayment, Checks should be made out to the ODNR Division of Soil and Water Resources. **Please let me know if you are interested in attending this short course by September 9, 2011** Once I have a count of the number of people attending, I will let you know what your exact cost for attending the short course will be. Please forward this to any of your co-workers who might be interested in this program. If you want to learn more about the AQTESOLV program, go to <http://www.aqtesolv.com/>. Don't miss this chance to increase your knowledge and advance your professional career, sign up today to reserve your place to attend.

Curtis J. Coe, CPG, PG  
ODNR Division of Soil and Water Resources  
2045 Morse Road, Columbus, Ohio 43229-6505  
Phone:614-265-6733, Fax:614-265-6767

**AQTESOLV Short Course – ODNR Division of Soil and Water**

**October 20 and 21 - Building I-2 Computer Room**

**Aquifer Test Analysis Using AQTESOLV**

**Thursday, October 20**

**Application of Derivative Analysis and Other  
Diagnostic Techniques for Pumping Test Analysis**

**8 am to Noon (including AQTESOLV exercises)**

**Techniques for Recovery Test Analysis**

**1 pm to 3 pm (including AQTESOLV exercises)**

**Single-Well Test Analysis**

**3 pm to 5 pm (including AQTESOLV exercises)**

**Friday, October 21**

**Analysis of Slug Tests Using AQTESOLV**

**8 am to 10 am (including AQTESOLV exercises)**

**Strategies for Overcoming Parameter Estimation**

**Difficulties**

**10 am to Noon (including AQTESOLV exercises)**

**Project Data: Evaluation and Discussion**

**1 pm to 5 pm**