

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

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**October 21, 2010
ODNR Fountain Square
Conference Room C-4**

The October 2010 SCCGW meeting consisted of Agency announcements and discussion of the ground water metadata project and a possible future workgroup on salt piles and other unregulated ground water contaminants

ATTENDANCE

Ohio EPA: Michael Eggert, Barb Lubberger, Aaron Shear
ODNR: Mike Hallfrisch, Mac Swinford, Tom Tomastik
ODH: Rebecca Fugitt
ODOT: Kevin Hodnett
PUCO: Sue Daly
USGS: Ralph Haefner
NRCS: John Armentano

AGENCY UPDATES AND ANNOUNCEMENTS

SCCGW Chair:

Geothermal Workgroup. The workgroup met in September to review the first draft of the guidance/recommendations. In addition to the technical guidance, the group wants to include a section that lays out the need for guidance and regulations. ODH will survey the local health districts for anecdotal or documented issues with geothermal systems that are installed by individuals lacking adequate training in well drilling.

OEPA, Division of Drinking and Ground Waters:

Retirement. Linda Friedman, the long-time chief of Ohio EPA's Division of Environmental Services, recently retired. Kirk Leifheit, DDAGW's assistant chief of the Drinking Water Program, has been appointed as acting chief of DES.

Harmful Algal Blooms. With the arrival of autumn, harmful algal blooms are finally disappearing from Ohio's lakes and reservoirs, while funding to address harmful algal blooms is increasing. The USGS has submitted a proposal to the Ohio Water Development Authority to conduct a study at Grand Lake St. Marys. The Natural Resources Conservation Service has funded another gauge on the Wabash River, intended to quantify nutrients and water quality improvements from installation of best management practices.

Salt Piles. A fifth salt pile issue has cropped up recently, this one in Miami County. Meanwhile, the Village of Camden is still trying to figure out a long-term solution to the loss of their public water supply due to unpalatably high levels of salt in the drinking water.

Unsafe Water Supply Investigation in Devola. Ground water flow direction and standard nitrate analyses have been reviewed, but the nitrate isotope and pharmaceutical data for this investigation have not been received, delaying the report. The division now hopes to issue the summary report by the end of 2010.

Natural Resources Damage Assessments. The division is working with Ohio EPA's Division of Emergency and Remedial Response (DERR) on using assessments of natural resources damages to protect land for natural resources preservation. Up till now, assessments have usually resulted in monetary payments. Instead, an evaluation would be made of how much protected land would "equal" the damages inflicted nearby. Brian Tucker is DERR's lead on this project; Jeff Patzke is the lead in DDAGW.

Total Coliform Rule. Final comments for the federal Total Coliform Rule were due on October 13th.

Village of Gratriot. The division recently activated three water systems within the village that were first identified as public water systems in late 2007, but were not activated because village and Licking County officials had agreed to create a centralized water treatment and distribution system to replace them. However, the project has stalled. Ground water pumped by two of the three systems contains above-MCL levels of arsenic and will require treatment.

Eastern Sandusky County Cancer Cluster. In September, Ohio EPA completed additional sampling at two private residences to support ODH and SCHD childhood cancer cluster investigation.

Ohio EPA, Division of Solid and Infectious Waste Management

Landfill Subsurface Reaction Workgroup. The guidance document on how to prevent and control subsurface reactions in landfills is in final draft and should be available by the end of the year. An internal process for dealing with them is also being finalized.

506 Ground Water Rules. A detailed concepts paper is now posted on the division's website.

C&DD Disposal Fees. Ohio Revised Code 3714.071 (passed in 2005) provides for a ten-cents per-ton disposal fee to be used exclusively for ground water monitoring at Ohio's construction and demolition debris landfills. The division is using a scoring sheet to prioritize which landfills will be monitored. Landfills located in source water protection areas, "sensitive areas" as recognized in various environmental rules, and areas with high DRASTIC scores will be prioritized. The division is putting out a Request For Proposal for drilling and sampling assistance and plans to start monitoring next year.

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

Great Lakes Compact. A workgroup has been discussing how to regulate the transfer of water out of the Great Lakes watershed. Their next and final meeting is scheduled for December 2, 2010, at which time they will approve the final report that will go to the state and provincial governors for signing. The draft report will be available on the ODNR website in late November.

The workgroup agreed on baseline withdrawals and programs for water conservation and efficiency. More difficult topics were threshold levels for permitting, and what level of withdrawal constitutes an “adverse impact”.

Midwest Ground Water Conference. The conference, held in Columbus in October, was a success, bringing in over 90 attendees.



Tornado Damage. Observation Well WN-8 on The Ohio State University’s Agricultural Research campus near Wooster was damaged by a recent F-3 tornado that actually bent the casing beneath the ground surface and destroyed the wellhouse. The cost to pull and replace this well is expected to be around \$4,300.



Ohio Department of Natural Resources, Division of Geological Survey

Division Hiring. Due to the number of projects the division has picked up recently, it is hiring several 3-year project employees, including a GIS specialist and two Geologist 3s.

Guidebook 21. The division has published Guidebook 21 which is a geology field guide along Lake Erie from Painesville to Marblehead.

Collins Lab. Recently geologists from oil companies have been visiting the Collins Lab to study the rock cores, anticipating opening oil and gas wells in the Marcellus or Utica Shales.

Coastal Erosion Maps. The division also is resolving two landowner objections to the division’s interpretation of erosion on their lakefront property, as shown on the Lake Erie Coastal Erosion Area (CEA) maps released in January 2010.

Wind Turbines. Wind turbines were to be installed in the Lake Erie CEA, about 5 miles out from the shoreline. However, bad weather has pushed this project back to Spring, 2011.

Ohio Department of Natural Resources, Division of Mineral Resources Management (MRM)

Bainbridge Water Problems. An expert panel completed a report concluding that the problem of natural gas in the wells of over 30 Bainbridge residents—which came to light in 2008 when a home exploded--was caused by the failure of an oil and gas well. Ohio Valley Energy Systems, which drilled the well, has paid to have the homes connected to a public water system at the cost of over \$1.5 million.

Oil and Gas Complaints. The division is receiving numerous complaints about private wells possibly being impacted by oil and gas activities, but most of the investigations reveal general poor maintenance of the well by the homeowner, not contamination.

Marcellus and Utica Shales. Momentum is building among oil and gas companies to exploit the oil and gas potential of the Marcellus and Utica Shales in eastern Ohio. The Farm Bureau has

been organizing meetings to explain the issues to landowners who are being approached by “landmen” trying to purchase their mineral rights. These meetings have been attended by 400-500 people. The division currently is reviewing two applications for 5,000-foot-deep wells into the Utica Shale. Also, five applications are in for installing Class II injection wells. Meanwhile, drilling fluids from wells in Pennsylvania and West Virginia are being shipped to Ohio for disposal in Ohio’s Class II injection wells.

In addition to concerns about accidental contamination, disposal of drilling fluids and general wear and tear on infrastructure, the “fracing” technique requires enormous quantities of fresh water. Water withdrawal requests have increased and along the Lake Erie-Ohio River divide, water users must take care not to pump on one side of the divide and dispose of water on the other. Ground water users must register their withdrawal with ODNR’s Division of Soil and Water Resources, if they are pumping over 100,000 gallons per day. However, there are no restrictions on individuals who divert water from a stream on their own property.

So far, there appear to be no studies indicating contamination of a drinking water aquifer from upward migration of product or frac fluid from a production or injection zone. The main problem to date has been horizontal methane migration from poorly constructed oil/gas wells.

Although much concern has focused on the chemicals in frac water, they reportedly only constitute 0.5% of “frac fluid”; the other 99.5% is water and sand. Of the frac fluid that is injected into the production zone, only about 10-15% is recovered but there is a big push underway to recycle the recovered fluid.

It is estimated that there may be 20-35 years of gas production within the shale units. The Utica Shale additionally could be exploited for petroleum.

Deep Injection Wells. As reported previously, two deep Class II injection wells are being drilled in Belmont County to handle oil and gas wastes. One of them will reach a depth of 14,000 feet, and is projected to cost \$40 million.

Injection Well Fee. Senate Bill 165 establishes a disposal fee of five cents per barrel of injectate produced within the same or an adjoining MRM regulatory district. The fee is 20 cents per barrel for injectate produced outside these districts. All money received from this fee is credited to the Oil and Gas Well Fund, which supports the Division of Mineral Resources Management.

Hiring. Due to the increasing demand for permits related to oil and gas exploration in the Marcellus and Utica Shales, the division expects to add another 37 full-time equivalents (FTEs), including eight inspector positions. Senate Bill 165 provides the needed additional funding to the division via various fees.

Pipeline. A pipeline is planned that will bring natural gas to the heavily urbanized northeast portion of the country, including New York City.

Ohio Department of Health

Private Water System Rule Revisions. The private water system rule revisions were submitted to the Public Health Council on September 23rd, 2010. They will then go to JCARR and be returned to the Council in January, 2011 for adoption.

Well Driller Registration. Annual registration of private well drillers will begin soon. DOH is moving toward Web-based training to help applicants meet the registration requirements.

Update on Sewage Law and Regulations. The 2007 suspension of sewage law (sections of ORC 3718) ended July 1, 2010. Substitute Senate Bill 110—which became effective September 17, 2010—requires that new statewide rules be adopted no sooner than January 1, 2012. To develop these rules, ODH created a rule advisory committee that meets twice a month. A secure website with a discussion board has been set up and continuously updated rule development information is available for viewing at <http://www.odh.ohio.gov/odhPrograms/eh/sewage/sewage1.aspx>

Professional Surveyors. (For background, see the August 2010 SCCGW summary) Local health districts have received warning letters recently to refuse septic system designs if they are not based on measurements done by a registered surveyor.

Beach Monitoring. ODH is developing a database for beach monitoring.

United States Geological Survey, Ohio Water Science Center

ODNR Observation Well Network. The USGS is working with the ODNR to utilize Capital Improvement funds to upgrade 50 -75 observations wells with new recorders and shelters. Water-quality sampling and geophysical logging will be done on 38 wells. Analyses will include major cations and anions, nutrients, and possibly some other constituents.

New Publications.

- “Quality of Water from Public-Supply Wells in the United States”, 1993-2007, Patricia Toccalino and Jessica Hopple, Circular 1346 (at <http://pubs.usgs.gov/circ/1346>)
- “A Fresh Look at Road Salt: Aquatic Toxicity and Water-Quality Impacts on Local, Regional, and National Scales”, Corsi et al., Environmental Science and Technology, Vol. 44, No. 19, 2010.

WMAO Conference. The fall conference for the Water Management Association of Ohio will be held at the Quest Conference Center (near Polaris) on November 17-18.

Natural Resources Conservation Services

Budget. NRCS is currently funded by a continuing resolution until the federal budget is approved. Funding levels for FFY 2011 are expected to be about the same as this year.

Reorganization. Staff are now focused on either easement programs or noneasement programs. Easement programs include: Grassland Reserve, Farm and Ranch Land, Healthy Forest Reserve, Wetlands Reserve and Flood Plain Easements. Noneasement programs include: Asst. State Conservationist programs, Environmental Quality Incentives, Wildlife Habitat Incentives, Conservation Innovation Grants, Cooperative Conservation Partnership Initiative, Conservation Security Program and Conservation Reserve Program.

Ohio Department of Transportation

Wind Turbine Study. ODOT will study impacts on wildlife from a wind turbine to be installed at its Northwood facility (east of Bowling Green). The study will be conducted between August and October and cover a 50 meter radius around the turbine.

DISCUSSION

Ground Water Meta-database

The Ohio Water Resources Council has agreed SCCGW may go forward with improving the Ground Water metadatabase that was developed over five years ago. They have expressed willingness to fund ongoing upkeep and housing it with an external web host (around \$140/year). The database needs to be redesigned for easier use, made faster, populated with more recent information, and publicized. Rather than establish a workgroup to tackle this, SCCGW will try to deal with various aspects of the project at their scheduled SCCGW meetings. Representatives are asked to take a look at the database at <http://www.dnr.state.oh.us/OWRC/OWIG/default.aspx> and prepare to discuss data gaps and needs at the next meeting.

OWRC Action Items

Rebecca distributed the October 15th draft of the OWRC Strategic Plan and shared some edits that were made during the Ohio Water Resources Council (OWRC) Advisory Group meeting on October 20th. SCCGW will take the lead on some action items under “water quality” (geothermal heating/cooling systems workgroup and evaluation of impacts from salt storage facilities) and “data and information” (revitalizing the ground water metadatabase).

The OWRC Advisory Group will meet on December 6th to finalize the Strategic Plan, then forward it to the agency directors for approval.

Salt Pile Workgroup

Attendees agreed that a salt pile workgroup should not be established until the geothermal workgroup is finishing up. However, DDAGW wishes to start evaluating the extent of the threat by the beginning of 2011. Meanwhile, Rebecca will ask Gail Hesse to forward an example of an OWRC workgroup charter so that we can draft up a charter. She will also look into including industry representatives and county/township officials.

NEXT SCCGW MEETING

... will be our annual holiday meeting, tentatively set for **December 16th at the Dutch Kitchen** in Plain City. You will be notified when the date and location are finalized. Former SCCGW members will be invited. Agenda includes a presentation on water withdrawal guidelines for the Great Lakes Compact and discussions of the geothermal and salt pile workgroups and the ground water metadata project.

REMINDER:

Meeting agendas and final meeting summaries are posted on the SCCGW Web site:
<http://wwwapp.epa.ohio.gov/ddagw/SCCGW/>