

# SRBC's Role in Regulating Natural Gas Development in the Marcellus Shale:

## Part One – Web Site Resources and What SRBC Regulates

*This column is presented weekly by the Public Education sub-committee of the Clinton County Natural Gas Task Force in an effort to provide accurate, up-to-date information on activities surrounding the Marcellus Shale formation and the natural gas exploration industry. For more information on Task Force activities, visit the Task Force page on the Clinton County government website at [www.clintoncountypa.com](http://www.clintoncountypa.com).*

*This represents the first in a series of articles from the Susquehanna River Basin Commission covering its role as it relates to the natural gas industry.*

The Susquehanna River Basin Commission (SRBC) is a federal-interstate watershed agency established on January 23, 1971 by the Susquehanna River Basin Compact. This year marks SRBC's 40<sup>th</sup> Anniversary, and the commission encourages the public to visit its general web site at [www.srbc.net](http://www.srbc.net) and the 40<sup>th</sup> anniversary web site at [www.srbc.net/anniversary/default.aspx](http://www.srbc.net/anniversary/default.aspx).



The Susquehanna compact joined the federal government and the states of New York, Pennsylvania and Maryland as equal partners for a period of 100 years to manage the Susquehanna basin's water resources through proper planning, development and regulation. As an interstate agency, SRBC manages the basin's water resources based on watershed boundaries, not political boundaries. This gives SRBC the unique ability to help resolve potential interstate water disputes.

**Information on SRBC's Regulatory Functions.** Among the key resources on its web site about the agency's regulatory responsibilities, there is a section devoted to the commission's regulation of natural gas well development in the Marcellus shale region at [www.srbc.net/programs/projreviewmarcellus.htm](http://www.srbc.net/programs/projreviewmarcellus.htm) and the Water Resource Portal at [www.srbc.net/wrp/Default.aspx](http://www.srbc.net/wrp/Default.aspx) for

information on approved projects and pending applications for natural gas development and all other regulated water uses. SRBC established this portal in 2010 to enhance the public's access to information on projects regulated by SRBC. Through the portal, viewers can: (1) find the status of pending and approved projects; (2) be able to view and

A screenshot of the SRBC Water Resource Portal website. The header includes "Water Resource Portal" and "Susquehanna River Basin Commission". The main heading is "Pending Applications and Approved Projects". A welcome message explains the portal's purpose. A sidebar on the left lists navigation links such as "What's New", "About Us &amp; Meetings", "Public Information", "Programs &amp; Activities", "Hydrologic Conditions", "Forms &amp; Applications", "Policies, Guidelines, Regulations", "Planning", "Subbasin Information", "Press Releases", "Buy Partners", "Useful Links", "E-mail Us", "Site Map", and "Home". On the right, there are links for "What to Expect from the Water Resource Portal", "Search for Projects", "Project Location Map", "Approved Source List for Natural Gas Development", and "Subscribe to Project Updates via RSS Feed".

download certain pending applications; (3) be able to view and download all SRBC approvals; (4) find the list of approved water sources for the natural gas industry, by project sponsor; and (5) sign up via RSS Feed to receive electronic notices of pending projects by county, municipality, and project sponsors or for all projects. The RSS Feed is a web-based tool to provide updated information.

**“Frequently Asked Questions (FAQ)” Handout.** SRBC recently produced and posted on its web site at [www.srbc.net/programs/marcellus\\_faq.htm](http://www.srbc.net/programs/marcellus_faq.htm) the FAQ handout in response to questions from the public about the regulation of water use for natural gas development in the Susquehanna basin. These questions, while not intended to be complete, do represent the types of questions SRBC receives most often. Following are a few of the many questions answered in the FAQ.

**QUESTION: Is it true that natural gas companies need approval from SRBC for all water associated with hydraulic fracturing (hydrofracing) in the Marcellus (and Utica) Shale?**

Yes. SRBC requires natural gas companies to seek approval from the commission before withdrawing or using any amount of water. This requirement represents a change from SRBC’s standard regulatory threshold. SRBC adopted the threshold-change for natural gas projects in October 2008, and has successfully applied it since that time. (For all non-natural gas-related projects, the standard thresholds [as 30-day averages] are 100,000 or more gallons per day for withdrawals and 20,000 or more gallons per day for consumptive uses.)

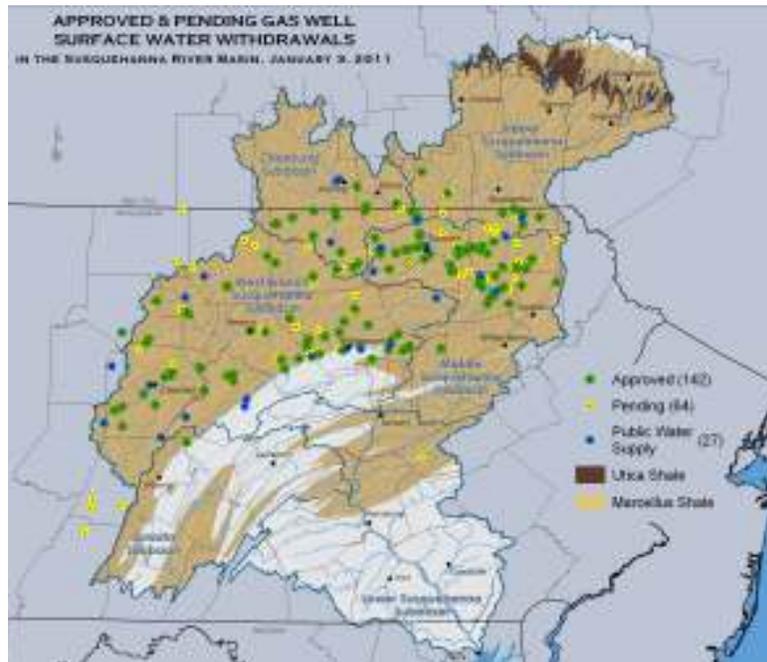


**QUESTION: What does SRBC regulate?**

SRBC regulates all withdrawals of surface water and groundwater and consumptive water uses within the basin for natural gas development in the Marcellus or Utica Shale formations. Prior approval from SRBC through an application process is required for water withdrawals and consumptive uses for natural gas development. (The term “approval” is equivalent to what is commonly called a “permit” by other agencies.)

**All surface water and groundwater withdrawal applications** are acted on by

SRBC’s commissioners during their quarterly business meetings (*see map of withdrawal approvals*). Before the commissioners act on proposed withdrawal applications, SRBC staff routinely conducts scientific and/or engineering studies as part of the technical review process to ensure that decisions are based upon good science.



When reviewing **proposed surface water withdrawals**, SRBC evaluates whether the proposed withdrawal would adversely impact other water users, fish, wildlife, other living resources or their habitat, recreation and flows in streams; or cause water quality degradation that may be injurious to water uses. SRBC also assesses the potential for the withdrawal to cause adverse impacts, both individually and cumulatively, to the water resources of the basin and other nearby water users, including residential uses.

When reviewing **proposed groundwater withdrawals**, SRBC evaluates whether the withdrawal is sustainable and consistent with the long-term protection of the water resources of the basin. Project sponsors requesting approval of a groundwater withdrawal are required to conduct a constant-rate aquifer test (72 hours in duration) according to a pre-approved testing plan, and submit the results of this testing with their application. SRBC determines whether there is adequate groundwater available to meet the needs of the project without adversely impacting water resources, assesses possible lowering of groundwater or streamflow levels related to the withdrawal, and considers the potential for causing water quality degradation that may be injurious to water uses. SRBC also uses the aquifer testing results to identify potential adverse impacts of the proposed withdrawal to other water uses, including domestic water supplies, and requires that these be mitigated prior to issuance of an approval.

**Consumptive water uses at natural gas drilling pads** are handled through an expedited administrative general permit process, known as Approval by Rule (ABR), and are reviewed and acted on by SRBC's Executive Director (see map for ABR approvals as of January 3, 2011).

Consumptive water use is water that is withdrawn and used in a manner that it is not reasonably returned to the watershed. Consumptive water use depletes the total volume of water available in streams and reaching the Chesapeake Bay, which can create severe problems particularly during periods of drought.

The ABR process allows SRBC to track the sources of water transported to and from the site, quantities of water consumptively used, and provide for mitigation.



**QUESTION: How is water consumptively used by natural gas companies?**

At a drilling pad, water is consumptively used for well drilling and construction; various well completion processes; hydrostatic, geophysical, and other testing; and for dust control. It is also evaporated from holding ponds, if any, and used in any water-related infrastructure to the drilling pad. The largest consumptive use is for hydrofracturing the well to stimulate production of the natural gas. Water is mixed with sand and chemicals (incorporated into a “product” – the fracturing fluid) and injected into the well. Although a percentage of the fracturing fluid flows back to the ground surface, SRBC considers all water when it is injected to be consumptively used.

