

IOGA Issues Relating to The Marcellus Shale Play

There are a number of issues which will or may affect the new participants in the Marcellus Shale Play that are industry-wide issues or issues specific to the Marcellus. It would be helpful for companies new to Pennsylvania operations to be aware of the issues, what IOGA is doing on the issue, and what remains to be done.

As previously mentioned in the “Who are we” section, IOGA of Pennsylvania is working against the recently introduced state-mandated storm water/NPDES replacement that Pennsylvania’s Department of Environmental Protection had recently instituted. We are working with the PA State Senate Chairperson of the Energy and Environmental Committee to exert political pressure on the Department against this permit.

Although this seems like a rather innocuous general permit, keep in mind that the Department can require a public hearing be scheduled in High Quality and Exceptional Value watersheds. Much of the areas of Northern Pennsylvania and some limited watersheds in Southwestern PA fall in these categories.

With shallow gas development, the permit is rather easy to avoid by continuously stabilizing the well access road and pipeline while construction is ongoing under the current policy. However, any change in policy can void this scenario, making virtually every well subject to the permit. For large wellsites over five acres, such as the sites required by Marcellus activities would require these permits on every location.

Water usage is going to be a large issue with the size of the frac jobs required by Marcellus wells. Act 220 requires that water reporting be done if more than 10,000 gallons per day is withdrawn from any watershed. In addition there are separate requirements for withdrawals in the Susquehanna and Delaware watersheds. Information on the two watersheds may be found in the following sections.

In those sections you will also find links to forms and requirements specific to each watershed. The web links are your best source of information on these requirements.

On the subject of water, another huge issue for Marcellus operators, particularly those operating in regions away from conventional wells, is disposal. Because of the tight nature of geologic formations in Pennsylvania, deep well disposal is not as particularly attractive option as in other geologic basins.

With a limited number of treatment and discharge sites, and limitations on treatment and discharge in different watersheds, disposal will be a huge headache for operators in the Marcellus. It will be important for these incoming operators to examine their options as early as practical as drilling and completion operations begin.

Pennsylvania requires that all DEP permits be subject to a PNDI (Pennsylvania Natural Heritage Information). The PNDI program and its uses can be found at:

<http://www.naturalheritage.state.pa.us/>

You will have to comply with the PNDI searches for all wellsites and pipeline projects. Our biggest challenge with PNDI is the time lag and the need to coordinate with multiple agencies if your PNDI search indicates an endangered or threatened species. Dealing with US Fish and Wildlife on federally listed species is particularly time consuming.

As noted in the “Who we are” section, IOGA is working hard to keep the General Assembly from reinstating the taxation of oil and gas as real estate, or even worse, instituting a severance tax. In October of last year the state House Finance Committee was meeting just two hours after a scheduled IOGA lobbying contact with the Chairman. As a result of our meeting, he pulled the bill - HB 1373 - which would have permitted the institution of the tax. We were successful in stopping the bill from proceeding then, but continue to monitor to prevent its movement later. The link to HB 1373 is:

<http://www.legis.state.pa.us/CFDOCS/Legis/PN/Public/btCheck.cfm?txtType=PDF&sessYr=2007&sessInd=0&billBody=H&billTyp=B&billNbr=1373&pn=1721>

Businesses in Pennsylvania pay one of the nation’s highest corporate income taxes at 9.9%. Comparing to Texas, our income tax equates roughly to the equivalent of a severance tax of 7.5% in a state such as Texas without the corporate income tax.

The hype that the press is fomenting in Pennsylvania is already resulting on questions from the public about taxing the industry via severance tax or some other tax scheme to “punish” our industry. We are very focused politically on stopping that from happening. This will certainly impact the entire industry if we are unsuccessful.

One additional issue is for the most part invisible on the radar screen of most new players to the state of Pennsylvania. For decades the coal and oil and gas industries have peacefully coexisted in PA. Over the last 1.5 years a new problem has arisen. With drilling activity

increasing dramatically in PA at the same time coal reserves are becoming more valuable, coal owners are beginning to reexamine our past relationship.

One of our members, Penneco Oil Company has been involved in a lengthy legal battle with Foundation Coal, a Baltimore, Maryland based coal operator. Foundation has threatened to intervene on every well drilled in their coal reserve in order to require extraordinary completion techniques and require plugging on demand without compensation. IOGA of PA is an intervener in the case and has assisted Penneco with funding this effort on behalf of the entire industry. Although we believe the natural gas industry will prevail in this case, this could obviously be a major issue to Marcellus players in the traditional coal regions of Pennsylvania.

The last issue that IOGA of Pennsylvania feels that may have impact on the Marcellus play is the completion of the Rocky Mountain Express Pipeline from Colorado to Ohio. Considering the large volumes of Western gas that this project will dump onto the Eastern US natural gas marketplace, we must be concerned that options are pursued not only to move this supply to the East Coast, but also see that transportation and markets are available to move Marcellus supplies as they come on stream. This will be a major issue for the entire PA natural gas producing industry.

Resources for New Marcellus Exploration Companies

Many of the companies moving into Pennsylvania have already done considerable research on operations in the Commonwealth. IOGA of Pennsylvania would like to provide this brief list of resources for those companies in the early stages of their research. We hope everyone finds this list of use, and urge each company with additional questions to call IOGA if there are any particular questions we can assist with.

Oil and Gas drilling and completion is regulated by the Pennsylvania Department of Environmental Protection, Bureau of Oil and Gas. There are currently two regional offices of the Bureau one in Pittsburgh for Southern Pennsylvania (412-442-4000) and one in Meadville for Northern Pennsylvania (814-336-6860).

The best source of information, forms and regulations is the Bureau of Oil and Gas website at:

<http://www.dep.state.pa.us/dep/deputate/minres/oilgas/oilgas.htm>

The law and regulations include Act 225 the Oil and Gas Act and Act 214 the Coal and Gas Resource Coordination Act for those companies operating in regions with underlying coal. There is also the full version of the Clean Streams Law.

The single most useful publication for oil and gas operations in Pennsylvania is the Operators Manual. The manual outlines all the hoops that PA producers must jump through and includes the legal basis for all the regulations you will be operating under.

This is found on the Bureau of Oil and Gas website or you may link directly at:

<http://164.156.71.80/WXOD.aspx?fs=2087d8407c0e00008000027300000273&ft=1>

Please take full advantage of this resource as it will give you essential guidance on virtually every potential pitfall the DEP can lay for your company.

Those companies seeking to lease state forest land will be dealing with the Department of Conservation and Natural Resources, Bureau of Forestry.

http://www.dcnr.state.pa.us/forestry/oil_gas.aspx

This group is based in Harrisburg. Your contact will be:

Teddy Borawski, Chief
717-772-0269

For mapping and geologic questions you may contact John Harper at (412) 442-4235. Mr. Harper is the Subsurface Geology Section, Chief located in the Pittsburgh office of the Bureau of Topographic and Geologic Survey.

The next section will give you a background and provide links to the Susquehanna and Delaware River Basin organizations and requirements.

Last but not least, with any other questions please call IOGA of Pennsylvania at (724)933-7306. Our website is www.iogapa.org.

Our Executive Director is Lou D'Amico
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Susquehanna River Basin Commission (SRBC)

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SRBC OVERVIEW

The mission of the Susquehanna River Basin Commission (SRBC), which is defined in the Compact, is to enhance public welfare through comprehensive planning, water supply allocation, and management of the water resources of the Susquehanna River Basin.

To accomplish this mission, the SRBC works to: reduce damages caused by floods; provide for the reasonable and sustained development and use of surface and ground water for municipal, agricultural, recreational, commercial and industrial purposes; protect and restore fisheries, wetlands and aquatic habitat; protect water quality and instream uses; and ensure future availability of flows to the Chesapeake Bay.

As a federal-interstate compact commission, its focus is defined by the natural boundaries of the river basin rather than the political boundaries of the member states. As such, the SRBC serves as a forum to provide coordinated management, promote communication among the members, and resolve water resource issues and controversies within the basin.

THE COMPACT

The Susquehanna River Basin Compact, which was signed into law on December 24, 1970, as adopted by the Congress of the United States, and the legislatures of New York State, Pennsylvania and Maryland, provides the mechanism to guide the conservation, development, and administration of the water resources of the vast river basin.

THE SUSQUEHANNA RIVER BASIN COMMISSION

The Compact established the Susquehanna River Basin Commission (SRBC) as the agency to coordinate the water resources efforts of the three states and the federal government.

Each member is represented by a commissioner who serves as the spokesperson for the government that he or she represents. In the case of the federal government, the commissioner and his alternate are appointed by the President of the United States. For the three states, the commissioners are the governors or their designees. The governors also appoint alternate commissioners.

The commissioners, or their alternates, meet periodically to act on applications for projects using water, adopt regulations, and direct planning and management activities affecting the basin's water resources. Each of the four commissioners has a single vote.

SRBC COMMISSIONERS AND ALTERNATES

<p>New York</p> <p>Commissioner, Currently Vacant</p> <p>Kenneth P. Lynch - Alternate</p> <p>Scott J. Foti - Alternate</p>	<p>Pennsylvania</p> <p>Kathleen A. McGinty -Commissioner, Chair</p> <p>Cathy Curran Myers - Alternate</p> <p>John T. Hines - Alternate/Staff Advisor</p> <p>Susan K. Weaver - Alternate/Staff Advisor</p>
<p>Maryland</p> <p>Dr. Robert M. Summers, Commissioner - Vice Chair</p> <p>Herbert M. Sachs - Alternate/Staff Advisor</p>	<p>U.S. Government</p> <p>BG Todd T. Semonite - Commissioner</p> <p>Colonel Peter W. Mueller - Alternate</p> <p>Colonel Christopher J. Larsen - Alternate</p> <p>Lloyd C. Caldwell - Staff Advisor</p> <p>Amy M. Guise -Staff Advisor</p>

RESPONSIBILITIES OF THE SRBC

Commission staff develops and implements the programs as directed by the commissioners and as found in the Commission's comprehensive plan, **Comprehensive Plan for the Management and Development of the Water Resources of the Susquehanna Basin**. The six major areas of the Comprehensive Plan and specific Commission functions within them are listed below.

Flood Plain Management & Protection

- Approves flood control projects.
- Assists in establishing flood warning systems.
- Establishes community self-help flood warning programs.
- Advises individuals, communities, businesses, and industries on flood loss reduction.
- Produces flood plain mapping and other information utilized for flood plain management.

Water Supply

- Inventories available water resources.
- Administers and manages interstate water resources.
- Determines the basin's storage needs and allocates water as needed.
- Assists in planning, developing, and financing water resources projects.
- Develops water supply storage and release plans.
- Regulates consumptive water uses.
- Develops data on flow conditions.
- Institutes emergency actions.

Water Quality

- Monitors water quality programs of signatory members.
- Conducts special surface and groundwater studies.
- Measures the impact of the Susquehanna River on the ecology of the Chesapeake Bay.
- Provides technical assistance to federal, state, and local governments.
- Conducts basin-wide monitoring.

Watershed Protection & Management

- Promotes protection of wetlands.
- Encourages proper agricultural practices.
- Recommends priorities for suitable uses of certain sensitive land areas.
- Reviews large-scale urban and rural development as it relates to water and wastewater needs.

Recreation, Fish & Wildlife

- Seeks development of water-based recreational resources.
- Encourages inclusion of public recreation programs at water resource projects.
- Promotes migratory fish restoration and propagation of indigenous species.
- Regulates releases of water to protect fishery resource and recreational uses.

Cultural, Visual, and Other Amenities

- Assists signatory members in designating and classifying historic and wild and scenic areas.
- Considers the impact of water resource projects on cultural values.

FORMS & APPLICATIONS

Link to SRBC Website that contains all forms & applications - <http://www.srbc.net/forms/index.htm>

THE SUSQUEHANNA

The Susquehanna River is the nation's sixteenth largest river and is the

largest river lying entirely in the United States that flows into the Atlantic Ocean. The Susquehanna and its hundreds of tributaries drain 27,510 square miles, an area nearly the size of South Carolina, spread over parts of the states of New York, Pennsylvania, and Maryland.

The river meanders 444 miles from its origin at Otsego Lake near Cooperstown, N.Y., until it empties into the Chesapeake Bay at Havre de Grace, Md. The Susquehanna contributes one-half of the freshwater flow to the Bay.

The river basin borders the major population centers of the east coast, and although relatively undeveloped, has experienced problems of water pollution and overusage. Because the Susquehanna River flows through three states and is classified as a navigable waterway by the federal government, there are state, regional, and national interests involved. There is a need to coordinate the efforts of three states and the agencies of the federal government, as well as a need to establish a management system to oversee the use of the water and related natural resources of the Susquehanna.



Susquehanna River Basin

Delaware River Basin Commission (DRBC)

25 State Police Drive
P.O. Box 7360
West Trenton, NJ 08628-0360
Tel:(609) 883-9500
Fax: (609) 883-9522
Carol R. Collier, Executive Director carol.collier@drbc.state.nj.us

DRBC OVERVIEW

The Delaware River Basin Commission was formed in 1961 by the signatory parties to the Delaware River Basin Compact (Delaware, New Jersey, New York, Pennsylvania, and the United States) to share the responsibility of managing the water resources of the Basin. Since its formation, the Commission has provided leadership in restoring the Delaware River and protecting water quality, resolving interstate water disputes without costly litigation, allocating and conserving water, managing river flow, and providing numerous other services to the signatory parties.

Commission programs include water quality protection, water supply allocation, regulatory review (permitting), water conservation initiatives, watershed planning, drought management, flood loss reduction, and recreation.

The five members appoint alternate commissioners, with the governors selecting high-ranking officials from their state environmental agencies. Each commissioner has one vote of equal power with a majority vote needed to decide most issues. Exceptions are votes on the commission's annual budget and drought declarations, which require unanimity.

DRBC COMMISSIONERS AND ALTERNATES

New York Gov. David A. Paterson – Member Alexander B. "Pete" Grannis - Alternate Sandra L. Allen - Alternate Mark Klotz - Alternate James DeZolt - Alternate Emily Lloyd - Advisor	Pennsylvania Gov. Edward G. Rendell – Member Cathy Curran Myers - Alternate John T. Hines - Alternate Susan K. Weaver – Alternate
Delaware Gov. Ruth Ann Minner - Member	New Jersey Gov. Jon S. Corzine – Member

John A. Hughes - Alternate	Lisa P. Jackson- Alternate
Katherine Bunting-Howarth - Alternate	Mark N. Mauriello- Alternate
Dr. Harry W. Otto - Alternate	Michele Putnam- Alternate
	Dr. Joseph A. Miri – Alternate
U.S. Government	
BG Todd T. Semonite - Member	
Colonel Christopher. J. Larsen - Alternate	
Lieutenant Colonel Gwen E. Baker - Alternate	

The Mission of DRBC is to:

- Provide comprehensive watershed management.
- Act as stewards of the Basin's water resources particularly with respect to:
 - Surface water quality, including both point and nonpoint sources of pollution;
 - Ground and surface water quantity, including water demands, water withdrawals, water allocations, water conservation, and protected areas;
 - Drought management; and
 - In-stream flow management
- Promote effective inter-agency coordination to prevent duplication of efforts.
- Seek increased public involvement.

REGULATIONS

For a complete list of DRBC Regulations – please link to <http://www.state.nj.us/drbc/regula.htm>

FORMS & APPLICATION

Link to DRBC Website that contains forms & applications - <http://www.state.nj.us/drbc/pjrev.htm>

Delaware River Basin



THE DELAWARE

The Delaware is the longest un-dammed river east of the Mississippi, extending 330 miles from the confluence of its East and West branches at Hancock, N.Y. to the mouth of the Delaware Bay where it meets the Atlantic Ocean. The river is fed by 216 tributaries, the largest being the Schuylkill and Lehigh Rivers in Pennsylvania. In all, the basin contains 13,539 square miles, draining parts of Pennsylvania (6,422 square miles or 50.3 percent of the basin's total land area); New Jersey (2,969 square miles, or 23.3%); New York (2,362 square miles, 18.5%); and Delaware (1,004 square miles, 7.9%). Included in the total area number is the 782 square-mile Delaware Bay, which lies roughly half in New Jersey and half in Delaware.