



# Frequently Asked Questions

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Susquehanna River Basin Commission

## SRBC'S ROLE IN REGULATING NATURAL GAS DEVELOPMENT

**Information about the Susquehanna River Basin Commission (SRBC)** and its regulatory functions are available on SRBC's website at [www.srbc.net](http://www.srbc.net). Among the key resources available on the website, there is the Water Resource Portal at [www.srbc.net/wrp](http://www.srbc.net/wrp) for information on approved projects and pending applications for natural gas development and all other regulated water uses.

**Frequently asked questions** from the public about the regulation of water use for natural gas development in the Susquehanna basin and SRBC's responses are provided in this handout. These questions, while not intended to be complete, do represent the types of questions SRBC receives most often. For questions not covered in the *Frequently Asked Questions* handout, please email SRBC at [srbc@srbc.net](mailto:srbc@srbc.net) or call 717-238-0423 and you will be directed to staff members who can answer your questions.

### Overview of What SRBC Does and Does Not Regulate

#### **Question #1: What does SRBC regulate?**

**Answer:** SRBC has a "limited" but very important role in the regulation of natural gas development, namely the regulation of water withdrawals and consumptive water uses. SRBC regulates all withdrawals of surface water and groundwater and consumptive water uses within the basin for natural gas development in tight shale formations and other formations that require unconventional natural gas development. Prior approval from SRBC through an application process is required for water withdrawals and consumptive uses for natural gas development. All surface water and groundwater withdrawal applications are acted on by SRBC's commissioners during their quarterly business meetings. 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 science-based.

Consumptive water uses at natural gas drilling pads are handled through an administrative general permit process, known as Approval by Rule, and are reviewed and acted on by SRBC's Executive Director. (Consumptive uses of 20,000 or more gallons per day not related to natural gas development and not supplied by public water require standard applications and are acted on by the commissioners at the quarterly meetings.)

#### **Question #2: What is SRBC's role in regulating water quality?**

**Answer:** While our regulations are intended to be protective of aquatic resources, SRBC does not regulate and has never regulated water quality for any projects, whether for natural gas development or other purposes. The Susquehanna River Basin Compact - that established SRBC 40 years ago - directs SRBC to avoid regulatory duplication, particularly in the area of water quality. In the Susquehanna basin, water quality regulations fall in the domain of our sovereign member states, New York,

Pennsylvania and Maryland, and the federal government. Since the states had already assumed responsibility for regulating water quality, SRBC consciously chose not to regulate water quality to avoid what would be an obvious duplication. SRBC has an active, long-standing role in monitoring and assessment of water quality in the basin, and much of this would be used to support recommendations made by the project review program. More information on SRBC's monitoring programs can be found at [www.srbc.net](http://www.srbc.net).

**Question #3: Does SRBC regulate frac fluid treatment, recycling and disposal?**

**Answer:** Not directly. SRBC does not regulate the capture, storage, transport, treatment, recycling or disposal of frac fluid wastewater - known as flowback or production fluids - from natural gas drilling and hydraulic fracturing (hydrofracing). The state agencies have the lead on those regulations. However, the injection of water for hydrofracing is a consumptive use regulated by SRBC. In its approvals for the consumptive use of water at drilling pads, SRBC requires natural gas companies to abide by all other agencies' water quality and waste management requirements; failure to do so can result in the modification, suspension or revocation of SRBC's approval. SRBC also requires natural gas companies to report post-hydrofracing information to the commission. These reports allow SRBC to track the quantities of freshwater, recycled flowback fluids, and all other water used, the sources or origin of all freshwater/wastewater used, and destinations of wastewater and unused freshwater whether it be to a permitted treatment facility or reuse at another drilling pad.

**Question #4: Does SRBC regulate gas well drilling?**

**Answer:** No. As with water quality issues, SRBC's member states have the lead responsibility for regulating gas well drilling, including construction of drilling pads and access roads, water storage impoundments, well construction, and hydraulic fracturing (hydrofracing), the method used to release gas from tight shale formations. SRBC regulates the injection of water in fracing fluid as a consumptive use (water lost to the water resources of the basin) and must approve all water sources used by the natural gas industry, including stream withdrawals.

## **Questions About Surface Water and Groundwater Withdrawals**

**Question #1: Is it true that natural gas companies need approval from SRBC for all water associated with hydraulic fracturing (hydrofracing) in tight shale formations?**

**Answer:** Yes. SRBC requires natural gas companies to seek approval from the commission before withdrawing or using any amount of water for unconventional natural gas development. SRBC adopted this threshold for natural gas projects in October 2008. (For withdrawals by project sponsors other than natural gas companies, the regulatory 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 #2: What kinds of approvals from SRBC do natural gas companies need to operate?**

**Answer:** Natural gas companies need approvals for surface water and groundwater withdrawals and consumptive water uses. SRBC issues separate approvals for each of these activities. Both surface water and groundwater withdrawal applications are acted on at a quarterly SRBC business meeting and are referred to as "dockets." Consumptive water use pertaining to the natural gas industry is approved through an administrative Approval by Rule. (The terms "approval" and "approval by rule" are equivalent to what is commonly called a "permit" by other agencies.)

When reviewing applications for surface water withdrawals, SRBC evaluates water availability and 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 applications for 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 use on drilling pads is regulated through the Approval by Rule process. These approvals allow SRBC to track the sources of water transported to and from approved locations, quantities of water consumptively used (lost to the system), and the fate of flowback and produced fluids.

**Question #3: How much water has SRBC approved for natural gas development and how much more does SRBC anticipate approving?**

**Answer:** As of March 2012, SRBC had approved withdrawal amounts of about 91 million gallons per day at 173 locations largely in Pennsylvania but a few in the New York portion as well. This answer is somewhat misleading unless it is viewed within the context of how the natural gas industry operates. A typical hydraulic fracturing operation for a horizontal gas well in a tight shale formation uses 3 to 5 million gallons of water over a 2- to 5-day period. However, because each company's operations, and the natural gas industry as a whole, is decentralized across the Susquehanna River Basin, a large number of sources are necessary to meet the potential water demands. Companies also continue to seek new withdrawals that are closer to their current drilling areas, thereby minimizing hauling distances for water tanker trucks or lengths of water pipelines. The natural gas industry feels it needs redundant sources so that hydrofracing operations can continue when an individual withdrawal will be interrupted due to a passby flow condition. It is highly unlikely that the total peak day withdrawal at all approved locations will ever be utilized by the natural gas industry considering the geographically distributed operations and redundant sources.

Further, as more wells are drilled, the natural gas industry continues to focus on improved water management and conservation practices to limit the increase in demand for water. Many companies reuse of flowback and production fluids, thereby reducing the quantity of freshwater necessary for hydrofracing; others are using treated wastewater effluent and mine drainage water to offset the need for water withdrawals. SRBC allows gas companies to share sources (stream withdrawals) previously approved for use by another natural gas company to reduce the number of intake locations, as long as the access and use agreements are registered with SRBC. SRBC staff is continuing to analyze changes in the water use profile of the gas industry, focusing on quantities of water used, the sources, and the locations of the withdrawals to facilitate planning for the changing demand from this sector.

SRBC has estimated that water use for the entire gas industry developing tight shale formations in the Susquehanna basin at full build-out is expected to be approximately 30 million gallons per day. For 2011, 2011, total industry consumptive use averaged approximately 10 million gallons per day. At this rate of

use, SRBC believes the largely water-rich Susquehanna basin can accommodate the natural gas industry's water needs along with the demands from other uses, especially during times when our waterways are flowing very high or at normal levels. For times when water quantities are stressed such as during droughts, the many protective conditions imposed on project sponsors will ensure the withdrawals cease until water supplies naturally recover.

**Question #4: Is there an upper limit for the amount of water SRBC will approve for withdrawals?**

**Answer:** Yes. In each of its approvals, SRBC sets a maximum withdrawal quantity based on the "reasonable foreseeable need" demonstrated by the project sponsor and quantity of water available for use. SRBC approvals do not insure that water will always be available for taking by the project sponsor, only that when hydrologic conditions are favorable, the specified quantity of water may be withdrawn. Many approvals are conditioned so that the withdrawal must be interrupted at a prescribed low flow (called a passby flow condition). SRBC also assesses the potential for adverse cumulative impacts from multiple withdrawals and could cap quantities approved within a watershed to protect the water resources and downstream uses. This has not been necessary to date because so many of the approvals currently in place require that withdrawals cease when flows approach the low end of the spectrum.

**Question #5: How does SRBC account for upstream and downstream withdrawals in its review process?**

**Answer:** The timing and location of proposed withdrawals is important to the technical review of applications. Each proposed withdrawal is evaluated for both its individual and cumulative impacts within a watershed, and protective conditions or mitigation may be required to minimize impacts to downstream uses during low flow periods. Cumulative demand is the total net upstream water use including the proposed withdrawal. It is important to note that SRBC's cumulative impact analysis is conservative in its assumption that all withdrawals are operating at their approved maximums and looks beyond SRBC approvals out of necessity. Because SRBC's surface water withdrawal regulation did not go into effect until 1995, there are numerous withdrawals throughout the basin that are not SRBC-regulated projects. Therefore, the cumulative impact analysis also relies on data from state water resource agencies (e.g., the Pennsylvania Department of Environmental Protection and the New York State Department of Environmental Conservation) for both reported and estimated water withdrawals, including public water supply.

**Question #6: Does SRBC protect streams during low flows?**

**Answer:** Yes. SRBC reviews the quantity of a requested withdrawal, the proposed rate of withdrawal, and stream conditions (hydrology, habitat, and aquatic resources) in its evaluation of potential adverse impact on a stream during low flows.

SRBC uses a statistical estimate called the Q7-10 flow as an indicator of low flow conditions during drought. By definition, the Q7-10 flow represents the lowest average flow that would be experienced during a consecutive 7-day period that is estimated to recur on average only once in 10 years. The data used to estimate the Q7-10 values come from streamflow quantity records from stream gaging stations operated by the U.S. Geological Survey, which are translated for estimating streamflow conditions at ungaged sites using statistical hydrologic principles and regional studies. Estimates of the Q7-10 flow are often used by state water resource agencies as the base flow condition in streams at which certain water quality standards apply, particularly for defining permit limits for effluent standards at wastewater treatment facilities. In its program standards, SRBC has determined that the potential for adverse impacts must be addressed if a proposed withdrawal, either individually or cumulatively when coupled with withdrawals for upstream users, exceeds 10 percent of the Q7-10 flow. Only proposed withdrawals

10 percent or less than this very low flow are considered to have minimal impact on aquatic resources, competing users and downstream water quality. If it is necessary to mitigate for potential adverse impacts from the proposed withdrawal, SRBC places a protective condition in its withdrawal approval-known as a passby flow.

**Question #7: What is SRBC’s passby flow requirement and how does it protect streams?**

**Answer:** A withdrawal conditioned with a passby flow requirement must be interrupted during low flows. A passby flow is a prescribed streamflow below which withdrawals must cease. SRBC often uses passby flows for defining limits in its approvals of stream withdrawals, essentially making the withdrawal cease at a particular flow threshold during periods of low streamflow and drought. The applicable passby flow threshold is prescribed in the approval and is site specific.

SRBC, in its docket approval, also establishes the monitoring protocols for the project sponsor. It is important to note that although streamflow may continue to decline after withdrawals cease, the passby flow requirement prevents the project’s withdrawal from further exacerbating naturally low flows in the stream system. It is important to recognize that although streamflow may continue to decline after withdrawals cease, the passby flow requirement prevents the project’s withdrawal from further exacerbating naturally low flows in the system.

The passby flow threshold is determined using published flow statistics, and factors in stream classification and information about the fishery and aquatic habitat that should be maintained. For certain streams, SRBC oversees an aquatic resource survey at the proposed withdrawal location to assess the condition of the aquatic community with the stream ecosystem as part of its technical review of an application for withdrawal.

**Question #8: What other kinds of conditions are included in SRBC’s withdrawal approvals?**

**Answer:** SRBC imposes certain requirements on sponsors of water withdrawal projects including a specified maximum rate of withdrawal and maximum daily withdrawal amount-and notably the metering, monitoring and reporting requirements to insure compliance with these conditions-that are intended to control and track quantities of water withdrawn daily at each location. Metering specifications, as well as a disinfection plan or other controls to prevent the spread of aquatic nuisance species, also are approved within dockets. With respect to direct regulation of water quality aspects of projects, SRBC relies on the agencies of its member jurisdictions with those existing authorities (e.g., the Pennsylvania Department of Environmental Protection and the New York State Department of Environmental Conservation) as directed by the policy established in the Susquehanna River Basin Compact. Dockets may be found at SRBC’s web site at [www.srbc.net](http://www.srbc.net) <<http://www.srbc.net>>.

Dockets also include provisions for reopening the approval as necessary, and a limited term of operation, currently set at 4 years for withdrawals related to natural gas projects. All dockets for natural gas include a provision requiring signage at facility locations.

**Question #9: How are the locations of surface water withdrawals selected?**

**Answer:** In its application, a project sponsor identifies to SRBC a “specific location for a requested surface water withdrawal” both by plotting the location on a map and by providing the latitude and longitude (accurate to 10 meters). SRBC staff does not propose withdrawal locations to a project sponsor. SRBC simply reviews the withdrawal location proposed by the applicant. If the commissioners grant an approval, the approval is for that specific location originally selected by the project sponsor. The project sponsor cannot move that point of taking once approved without submitting a new application.

**Question #10: How can the public find out if a withdrawal site is approved?**

**Answer:** Approved withdrawal locations are shown on maps at SRBC’s web site at the Water Resource Portal at [www.srbc.net/wrp](http://www.srbc.net/wrp), and the project sponsor must install signs at the withdrawal location that identify the project sponsor and other pertinent information about the project. This signage requirement is unique to the natural gas industry and one of the most important SRBC docket requirements. Early on, SRBC recognized that because these withdrawals are not tied to “brick and mortar” facilities like most SRBC-approved projects, signage would be necessary for SRBC staff and others to be able to easily identify approved projects for compliance purposes. Prior to any withdrawal of water, the project sponsor must post a sign that meets SRBC specifications identifying the project sponsor; the project name; docket approval number; conditions of the withdrawal approval including the quantity, rate and passby flow information; docket expiration date; and contact information for the project sponsor and SRBC.

**Question #11: Can a private landowner sell water to the natural gas industry if its property has a pond, an old well or a stream?**

**Answer:** Yes. In many instances, private landowners have provided access to a natural gas company who then applied for the withdrawal approval. A private landowner also can apply for and receive SRBC approval for a withdrawal, as would any other public or business interest. Natural gas companies developing tight shale formations in the Susquehanna basin must have prior SRBC approval to utilize any water source.

**Question #12: What does a private landowner have to do to sell water to the gas industry?**

**Answer:** In most instances, natural gas companies submit the applications to withdraw water from privately-owned lands after reaching access agreements with the landowner. However, a private landowner may submit a application directly to SRBC requesting approval for a withdrawal and bulk sale of that water to the natural gas industry. The landowner must demonstrate, through written agreements, that one or more natural gas companies have committed to purchase the water. The application process including forms, fees and notices is the same as for other project sponsors. Information about the process and the appropriate forms are available on SRBC’s web site.

**Questions About Consumptive Water Use Approvals**  
**(Approval By Rule (ABR))**

**Question #1: Why do natural gas companies need consumptive water use permits in addition to withdrawal permits to operate?**

**Answer:** As with many projects, the development of water resources can potentially impact the resource if not properly managed. 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. SRBC reviews consumptive use projects and requires mitigation for impacts related to that loss to protect the environment while allowing water use.

**Question #2: How does SRBC regulate consumptive water uses by the natural gas industry?**

**Answer:** SRBC regulates the consumptive use of water on a drilling pad basis through an expedited administrative Approval by Rule (ABR) process. This allows SRBC to track the sources of water transported to and from the site, quantities of water consumptively used, and provide for mitigation. While SRBC’s consumptive use regulations provide for several mitigation options (including

discontinuance of the water use, reliance on water storage, replacement of the water, or payment of a consumptive use fee), the payment of the consumptive use fee is the only option available for mitigation under the expedited ABR process.

**Question #3: In addition to SRBC-approved withdrawals, what other sources of water can be used by natural gas companies?**

**Answer:** The expedited ABR process allows companies to use sources of water that have already been approved for their use at any of their drilling pads and to utilize shared sources (stream withdrawals) previously approved for use by another natural gas company, as long as access and use agreements are registered with SRBC. Gas companies may also request approval to use other sources of water, such as public water supplies or a source of lesser quality water, such as from wastewater or noncontact cooling. In Pennsylvania, SRBC and the Pennsylvania Department of Environmental Protection are working with the industry to facilitate the withdrawal and use of impaired waters, including mine drainage and wastewater. This practice alone may greatly reduce existing stresses on the aquatic habitat in many areas. In addition, many of the gas companies are reusing up to 100 percent of the flowback fluids for other hydrofracturing sites.

**Question #4: How is water consumptively used by natural gas companies?**

**Answer:** 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 appurtenances 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 fracing fluid) and injected into the well. Although a percentage of the fracing fluid flows back to the ground surface, SRBC considers all water when it is injected to be consumptively used.

**Question #5: In addition to the requirement for mitigation, what other kinds of conditions are included in SRBC’s consumptive use approvals?**

**Answer:** The approval specifies the maximum daily quantity of consumptive water use; metering, monitoring and reporting requirements; daily monitoring of quantities; sources of water transported to and from the site; and the fate of flowback and produced fluids in the first 30 days after hydraulic fracturing. The approval also requires signage to be posted on location. Once signs are posted, the project sponsor is responsible for providing proof of installation (photographs) to SRBC. The project sponsor must submit a report documenting the water types and quantities used in each hydrofrac “event,” including an accounting of any produced flowback fluids or brines utilized by the project sponsor for hydrofracture stimulation. The project sponsor also must certify that all flowback and fluids produced in the first 30 days after the release of pressure on the well following hydraulic fracturing, including brines, have been treated and disposed of in accordance with applicable state and federal laws, and any unused (surplus) water was not discharged back to the waters of the basin without appropriate controls and treatment to prevent the spread of aquatic nuisance species. All necessary permits or approvals required by local, state, or federal agencies must also be obtained.

**Question #6: How much water has SRBC approved to be consumed by drilling projects in the Susquehanna River Basin?**

**Answer:** SRBC approves consumptive use of water on a drilling pad basis, and anywhere from one to eight wells, over time, may be drilled and ultimately hydrofractured on each pad. On average, a typical horizontal well consumes approximately 3.84 million gallons of freshwater and an additional 0.52 million

gallons of reused flowback when hydrofractured. To date, no company has requested to re-stimulate or re-complete a horizontal shale well. Calculating an average consumptive water use of 4.3 million gallons of freshwater to fracture a well by 6 wells per pad on average results in roughly 24-26 million gallons of water consumptively used per well pad, over the life of the pad.

As of March 2012, SRBC has approved the consumptive water use at approximately 1,928 drilling pad sites. Note that many of these pad sites may have only one or two wells at the present time, if they have been constructed at all. Visit SRBC's Water Resource Portal at [www.srbc.net/wrp](http://www.srbc.net/wrp) to find the individual approved well pad locations.

**Question #7: How many wells does SRBC estimate will be drilled in the coming years in the entire Susquehanna River Basin?**

**Answer:** This is a very difficult question to answer and will largely be controlled by the efficiencies of the gas wells and the regulation of well spacing. New York State has well spacing regulations that will be employed in that part of the basin and well spacing criteria are being discussed in Pennsylvania.

**Question #8: Where can I find the Environmental Impact Statements for these ABR projects?**

**Answer:** Environmental impact statements are required under the National Environmental Policy Act (NEPA) for federal actions. ABR projects are not subject to NEPA, so no statements are required (absent a separate state requirement, which Pennsylvania does not have). ABRs, which authorize prescribed quantities of consumptive use, involve an ongoing cumulative impact analysis of the natural gas industry. In New York State, the Department of Environmental Conservation is currently preparing a Supplemental Generic Environmental Impact Statement.

## **Questions About Water from Public Water Suppliers**

**Question #1: Can natural gas companies use water from public water suppliers?**

**Answer:** Yes. Natural gas companies may request approval to purchase water from a public water supplier under SRBC's Approval by Rule regulations. In many cases, SRBC does not currently regulate the public water supply system, nor has SRBC staff reviewed the individual sources for the system. SRBC staff does not conduct specific studies related to these applications to purchase water. However, all sources for the public water supply systems are currently approved by the appropriate state agency, and SRBC coordinates with these agencies in its review of the request to purchase bulk water. In the review, SRBC establishes that:

- There is sufficient excess capacity to support the requested bulk sale;
- There is an agreement in place between the natural gas company and the public water supplier;
- The public water supply system is in compliance with its permits (reporting meets requirements, allocated quantities not exceeded, water loss in the system is within acceptable range, etc.);
- The water for the bulk sale will come from the existing system and not require a modification under state regulations;
- The connection for the bulk sale will be fully metered and quantities monitored; and
- The request is administratively complete and otherwise acceptable. An approval issued by SRBC does not insure that water will be available for purchase every day; the agreement between the gas company and the public water supplier dictates availability.

**Question #2: How many municipal/public water suppliers have been approved for use by gas companies?**

**Answer:** As of March 2012, SRBC has approved 32 public water suppliers for use by gas companies. These approvals have a term of one year and are renewable.

**Question #3: How much water from public water suppliers has been used?**

**Answer:** Between June 2008 and February 2012, according to the post-hydrofracture reports for 1,281 wells, about 1,117 million gallons which equates to about 19 percent of the water used in hydrofracturing has been provided by non-docketed water sources, most of which are public water systems. (This category of water sources also includes impaired waters such as mine drainage and industrial and municipal wastewaters and tophole water.). Public water suppliers are second, only behind surface water withdrawals, in preference as water sources for the natural gas industry. Due to the coordinated nature of the review for a bulk water purchase from public water suppliers, it is usually “easier” for a natural gas company to get approved to use these sources than new withdrawal points. This allows for operations to commence faster, allowing time for permitting and constructing surface water withdrawals. The recent trend has been for natural gas companies to rely more heavily on their own surface withdrawals.

## **Questions About Diversions of Water Into and Out of the Susquehanna Basin**

**Question #1: If water is moved into the Susquehanna basin from an out-of-basin source, is SRBC approval required for the diversion? What factors are evaluated?**

**Answer:** Yes. Any quantity of water brought into the basin is regulated by SRBC and the project sponsor must apply to SRBC for approval by the commissioners at a quarterly business meeting, upon public notice. The Susquehanna River Basin Compact draws special attention to diversions as requiring particular scrutiny and making them subject to a public hearing that is held in association with one of SRBC’s quarterly business meetings..

During its technical review, SRBC staff evaluates the proposed water source, including its water quality and classification, and applicable withdrawal permits; and the proposed discharge location, including the water quality and stream classification of the receiving stream in the Susquehanna River Basin. SRBC staff determines whether the proposed diversion has the potential to result in water quality degradation that may be injurious to any existing or potential groundwater or surface water use. All public comments are taken into consideration as part of the final action taken on the diversion.

**Question #2: If water is moved out of the Susquehanna basin from an in-basin source, including from public water suppliers, is SRBC approval required for the diversion? What factors are evaluated?**

**Answer:** Quantities of water above 20,000 gpd moved out of the basin for natural gas development are regulated by SRBC and the project sponsor must apply to SRBC for approval by the commissioners at a quarterly meeting, upon public notice. Also as with in-basin diversions, the Susquehanna River Basin Compact draws special attention to such diversions as requiring particular scrutiny and making them subject to a public hearing. During its technical review, SRBC staff evaluates a number of factors, including whether project sponsors have made reasonable efforts to develop and conserve water sources within the importing basin, and have considered other alternatives to the diversion. Also considered is the the potential for any adverse effects the project may have on the ability to meet present and future

in-basin water needs; impact on economic development in the Susquehanna River Basin, the location including proximity to the basin divide, amount, and timing of the diversion; and policies and planning of agencies of the member jurisdictions. All public comments are taken into consideration as part of the final action taken on the diversion.

**Question #3: What about inter basin transfers of flowback and produced fluids?**

**Answer:** SRBC encourages the reuse of flowback and production fluids for hydrofracturing, and as a result of rulemaking adopted in December 2011, provides for administrative approval of interbasin transfers between drilling pad sites. Out-of-basin transfers of flowback and produced fluids from an SRBC-approved hydrocarbon development project to a treatment or disposal facility is also approved administratively. The new regulations become effective on April 1, 2012.

### **Questions About Compliance and Enforcement**

**Question #1: What does SRBC do to ensure compliance with its regulatory program?**

**Answer:** SRBC has the authority to take enforcement action against companies that fail to gain SRBC approval or violate the terms and conditions of approvals. For approved projects, SRBC requires metering to document daily quantities withdrawn or used, monitoring of approval conditions such as protective passby flows, and reporting (commonly quarterly) of monitoring data. The monitoring data are screened for compliance with docket conditions upon receipt. Although this information is typically reported quarterly, it can be requested at any time deemed necessary/appropriate by SRBC staff.

Approved projects are also subject to inspection at key points during construction and prior to operation, and periodically during the term of the approval. Meters must be certified for accuracy, and compliance with signage requirements is documented through photographs provided to SRBC.

SRBC's inspectors are regularly on patrol ensuring program requirements are met by project sponsors. All compliance staff members have been tasked with creating a strong field presence in order to effectively monitor the Marcellus Shale operations. Along with this task, SRBC believes it is essential to take advantage of all opportunities to educate the general public on SRBC's role in regulating the natural gas industry.

**Question #2: When does SRBC do its inspections and where are the inspectors located?**

**Answer:** SRBC inspections occur during regular business hours, as well as non-standard work hours including evenings, weekends and holidays. Inspections are conducted at random of both drilling pads and water withdrawal points. Field inspectors also respond to complaints received from the public. Most of SRBC's inspectors live and work out of the northern tier of Pennsylvania and report to SRBC's field office in Sayre, Bradford County, Pennsylvania.

### **Questions About SRBC's Coordination With Other Agencies**

**Question #1: How does SRBC coordinate with other agencies in its reviews of applications?**

**Answer:** SRBC is committed to working with agencies of its member states to balance the needs for economic development and environmental protection. Many legitimate concerns and issues are associated with gas drilling in the Susquehanna River Basin that SRBC does not regulate, including road development and wear, excessive noise and light, heavy truck traffic, forest fragmentation and potential contamination of aquifers.

SRBC relies on the expertise and jurisdiction of other agencies of government to assure those aspects of a project meet applicable standards. Each SRBC docket approval expressly provides that the approval shall not be construed to exempt the project sponsor from obtaining all necessary permits and/or approvals required for the project from other federal, state, or local government agencies. Furthermore, SRBC reserves the right to modify, suspend, or revoke its action if the project sponsor fails to obtain or maintain such approvals.

## **Questions About Access to Information Regarding SRBC's Compliance and Enforcement, Regulatory and Other Actions**

**Question #1: How does the public access information from SRBC that is not readily available on the web site, and are there fees for obtaining that information?**

**Answer:** Persons interested in SRBC's access to information procedures should visit SRBC's web site at [www.srbc.net/pubinfo/index.htm](http://www.srbc.net/pubinfo/index.htm). This web page includes SRBC's Access to Records Policy, which explains how requests to review information are handled, and the Records Process Fee Schedule, which explains the fees for materials and SRBC staff time.

Requests to review data or other information not available on the web site must be submitted in writing to the Executive Director, SRBC, 1721 N. Front Street, Harrisburg, PA 17102 or e-mailed to [srbc@srbc.net](mailto:srbc@srbc.net) or faxed to 717-238-2436. The requests will be evaluated on a case-by-case basis and then approved or denied by the Executive Director or a designee.

SRBC is committed to promptly responding to reasonable requests. If SRBC cannot respond within a reasonable timeframe, the requestor receives a written statement indicating the approximate date when the response can be expected from SRBC.

Records or materials approved for review are available for inspection and copying at SRBC headquarters in Harrisburg during normal business hours.

**Question #2: Can SRBC provide quarterly reporting by a project sponsor to the public or is this information confidential?**

**Answer:** Monitoring data submitted for a project are comprised of daily quantities (total) withdrawn or used and are not currently available on SRBC's web site. These data are generally considered public information and available upon request, unless a project sponsor has made a specific request for confidentiality that has been agreed to by SRBC.

**Question #3: Are SRBC's consent orders or settlements available for public review?**

**Answer:** Documents related to settlements or orders, once approved by SRBC, are public information and can be provided upon request through the Access to Records procedures. SRBC does issue press releases related to the commission's actions, including compliance and enforcement actions.