

REGULATING WATER WITHDRAWALS AND CONSUMPTIVE USES IN THE SUSQUEHANNA RIVER BASIN

"No projects affecting the water resources of the basin, except those not requiring review and approval by the Commission..., shall be undertaken by any person, governmental authority or other entity prior to submission to and approval by the Commission or appropriate agencies of the signatory parties for review."

-- Section 3.10 of the Susquehanna River Basin Compact, P.L. 91-575; 84 Stat. 1509 et seq.

The Susquehanna River Basin Commission (SRBC) is a federal-interstate compact commission established by the federal government and the states of New York, Pennsylvania and Maryland. SRBC is responsible for guiding the construction, development and administration of the projects affecting water resources of the basin and coordinating the water resource management activities of the three states and federal agencies. The Susquehanna basin covers a 27,510-square-mile area that drains into the Chesapeake Bay.

Who has the primary responsibility for managing the water resources of the Susquehanna basin?

The primary responsibility for managing the waters of the Susquehanna falls on the three member states—New York, Pennsylvania and Maryland. SRBC works to fill in the regulatory gaps that exist in each state's management program. SRBC assumes the necessary responsibility until the state has the regulatory authority to implement a water management program consistent with the Compact.

What does SRBC regulate?

SRBC regulates ground and surface water withdrawals, consumptive water uses and diversions under SRBC Regulation §806.4. The main purposes of SRBC's regulations are to:

- avoid conflicts among water users;
- protect public health, safety and welfare;
- control stream quality;
- consider economic development factors;
- protect fisheries and aquatic habitat;
- promote recreation;
- dilute and abate pollution;
- regulate flows and supplies of surface and groundwaters; and
- protect the Chesapeake Bay.

What are SRBC's Regulatory Authority and Consumptive Use Provisions?

SRBC regulates—under 18 CFR Parts 801, 806 and 807—the withdrawal and use of water resources in the Susquehanna basin. Following are the three primary SRBC water use regulations and their respective threshold quantities:

- *Consumptive water use*—20,000 gallons per day or more (as the peak consecutive 30-day average) of water from any source, including users on public water supplies.
- *Withdrawals*—100,000 gallons per day or more (as the peak consecutive 30-day average) of surface water, groundwater, or a combination of the two.
- *Diversions* (out-of-basin diversions are regulated as consumptive water uses)—any quantity involving a diversion into the basin, or 20,000 gallons per day or more (as the peak consecutive 30-day average) for diversion out of the basin.

Project sponsors must apply for and receive SRBC's approval prior to the initiation of construction of water related features.

What is consumptive water use?

SRBC defines consumptive water use as water that is withdrawn from the Susquehanna River Basin through a man-made conveyance system and used in such a way that it is not returned to the basin. Water is considered lost to the basin when it is:

- evaporated, such as through cooling towers at power plants, from storage ponds, or through irrigation;

- transpired due to irrigation, including golf course operations;
- incorporated into manufactured products, such as concrete and food and beverage products;
- injected into a subsurface formation; or
- diverted out of the Susquehanna basin, regardless of its intended use.

SRBC’s consumptive water use regulation is designed to maintain streamflows to protect water supplies, instream uses such as fish and aquatic life, and recreation during periods of low streamflow. Regulated consumptive water users must mitigate for their consumptive water use during times of designated low flows.

What options do project sponsors have for consumptive use mitigation?

SRBC’s Regulation §806.22(b) lists several mitigation options, as follows:

Replacement—The project sponsor can achieve replacement of consumed water through release of storage or by use of a temporary water source that does not impact streamflows.

Discontinuance—The project sponsor may discontinue the consumptive use of water during low flow conditions.

Conservation Releases—The project sponsor can meet the mitigation requirement if the source of consumptive water use is surface storage subject to maintenance of a conservation release deemed acceptable by SRBC.

Payments—The project sponsor can opt to provide monetary payment for annual consumptive use. The payments are made based on measured consumptive water use at a rate (i.e., the mitigation fee) set by SRBC, and are used to fund mitigation projects.

Alternatives—The project sponsor may propose an alternative for review and approval by SRBC.

Why is it important for SRBC to regulate consumptive water use and diversions?

SRBC adopted the consumptive water use regulations to safeguard adequate flows for public water supplies, industries, agriculture and recreation, and to protect aquatic life, habitat and water quality during times of critical low flows.

Peak consumptive water use in the Susquehanna basin has increased from an estimated 270 million gallons per day (mgd) in 1970 to about 500 mgd in 2000.

SRBC projects the demand for consumptive water uses will increase to more than 1.2 billion gallons per day by 2025.

Consumptive uses generally peak during the summer months. Unfortunately, this is also the period when streamflows and groundwater levels are typically at their lowest. SRBC’s consumptive water use regulations are intended to help ensure adequate supplies for the many competing water uses during these critical low flow periods.

Section 3.10(2) of the Susquehanna River Basin Compact requires SRBC to approve diversions of water, which are defined as the transfer of water into or from the basin. Out-of-basin diversions are regulated as consumptive uses. Regulation §806.24(a) identifies the criteria for reviewing and approving out-of-basin diversions.

SRBC’s concerns about in-basin diversions focuses on their impact on the quality of basin waters. See Regulation §806.24(b) for details.

Why is it important for SRBC to regulate surface and groundwater withdrawals?

SRBC adopted withdrawal regulations to avoid conflicts between water users and to ensure beneficial management of the water resources.

By regulation, withdrawals are limited to the amount (quantity and rate) that is needed to meet the reasonably foreseeable needs of a project and that can be withdrawn without causing adverse impacts. Adverse impacts include: excessive lowering of water levels; rendering competing supplies unreliable; causing permanent loss of aquifer storage capacity; degradation of water quality that may be injurious to any existing or potential water use, adversely affecting fish, wildlife or other living resources or their habitat; and substantially impacting the low flow of perennial streams.

When do project sponsors have to apply to SRBC for water withdrawals, consumptive uses and diversions?

Applicants (or project sponsors) whose projects exceed the regulatory thresholds (18 CFR §806.4) are required to submit application(s) for review and approval by SRBC prior to the time the project is undertaken.

How does SRBC’s application process work?

SRBC’s application process has a number of standard criteria that are applied to all projects. The official

name for SRBC's regulatory program is Project Review. SRBC's Project Review process includes these primary phases:

- Pre-Application
- Administrative Review and Interagency Coordination
- Technical Review
- Formal Action
- Post Approval

What must the applicant do during the Pre-Application phase?

SRBC encourages, but does not require, project sponsors to meet with Project Review staff to discuss the proposed project and review SRBC's requirements.

Project sponsors requesting approval of a groundwater withdrawal are required to conduct a constant-rate aquifer test (72 hours in duration). Prior to conducting the aquifer test, project sponsors must submit an aquifer testing plan following SRBC's guidance document, and obtain SRBC's prior approval of their proposed testing. The results of the aquifer test are submitted by the project sponsors with their application.

The applicant also is responsible for issuing public notices of the proposed project within 10 days of submitting an application. Public notices must be issued to: (1) a local newspaper, (2) the county planning agency, (3) contiguous property owners, and (4) the local municipality.

What happens during the Administrative Review and Interagency Coordination phase?

During administrative review, SRBC reviews applications for completeness (fees, notices and supporting documentation), enters the project into an informational database for tracking, and processes the application for its technical review.

Also, during this phase, SRBC notifies appropriate state and federal agencies that an application has been submitted. Written comments are solicited from the public, as well as federal, state and local agencies and officials in order to consider and evaluate the impacts of the proposed use. These comments are considered during the technical review phase, and also are used to determine the need for a public hearing and evaluate the overall public interest in the proposed use.

Although SRBC staff conducts an independent review of project applications, SRBC coordinates its actions on projects with the regulatory agencies of the member states—New York State Department of Environmental

Conservation; Pennsylvania Department of Environmental Protection and the Maryland Department of the Environment – and the federal government – e.g. Federal Energy Regulatory Commission, Environmental Protection Agency and U.S. Fish & Wildlife Service. SRBC staff coordinates with these agencies to make sure that all issues and concerns are resolved prior to SRBC action. When a state's regulatory agency or any political subdivision of the agency (i.e., local government) having jurisdiction over the project denies or otherwise disapproves an aspect of the project, SRBC will suspend its review for up to three years (pending final resolution) or terminate its review.

What does SRBC assess during the Technical Review phase?

During technical review, SRBC's Project Review staff evaluates the potential impact (including cumulative impacts) of the proposed withdrawal or use on public interests and reflects SRBC's concern for both protection and utilization of water resources within the basin.

SRBC's Project Review staff—made up of professional engineers and geologists, and others—reviews the information submitted by the project sponsor and considers written comments submitted by government agencies and the general public. It also conducts a site investigation. Factors that may be relevant to the proposal are general environmental concerns, wetlands, flood hazards, floodplain values, fish and wildlife values, water supply and conservation, water quality, and, in general, the needs and welfare of the residents of the basin.

The review of all proposed projects is site-specific; however, in general terms SRBC:

- (1) determines if the requested quantity represents a reasonable need;
- (2) evaluates the ability of the water resource to meet that need;
- (3) identifies potential adverse impacts of the withdrawal or use, both to other water uses and water resources;
- (4) conducts an environmental impact screening to identify known, existing, sensitive aquatic-dependent environmental resources;
- (5) assesses the proposed method of mitigation for consumptive water uses; and
- (6) determines whether the project's use is in conflict with other regulations.

SRBC's Project Review staff formulates specific recommendations so that the project can operate

without causing any undesirable environmental effects. Water quantities and rates of withdrawal can be reduced from those requested, or otherwise limited, as necessary to protect other uses or mitigate impacts. Many projects are conditioned with passby flow requirements. The intent of the passby flow requirement is to protect streams during low flow conditions by determining a prescribed quantity of water that must pass a specific point downstream from a water intake at any time a withdrawal occurs. At other projects, Project Review staff recommends a minimum groundwater level that must be maintained. For all projects, SRBC sets the appropriate monitoring requirements during the technical review phase so that SRBC staff can track project operations over the term of an approval.

Who makes the final decision on a proposed project and what are the standard conditions?

After completing the review and assessing all comments from other agencies and the public, Project Review staff prepares its project recommendations—in the form of a docket—which is presented to the commissioners for final action. The commissioners, who meet quarterly to act on dockets in a public hearing format, can: (1) approve, (2) table, or (3) deny a project. Nearly all projects that are approved by the commissioners contain conditions. These conditions are tailored to the particular project. However, there are some standard docket conditions as follows:

Metering—SRBC requires metering on both withdrawals and consumptive water uses to measure and track water use throughout the basin. In certain situations, there is an allowance for modeling and certain analytical methods to calculate use, particularly for projects with consumptive water uses.

Monitoring and Reporting—SRBC requires daily monitoring and reporting of withdrawal and quarterly reporting of consumptive water use quantities so the agency can undertake the broader management responsibilities and ensure that the project sponsors are in compliance with their requirements.

Mitigation—On those occasions when a project sponsor's use does cause an adverse impact either to the resources or to another user, SRBC requires the project sponsor to mitigate those impacts. SRBC could restrict its usage, require the project sponsor to develop an alternative water supply, or provide other appropriate mitigating measures.

Water Conservation—SRBC requires, as a general rule, that project sponsors maintain certain minimum water conservation standards to minimize water usage. These standards include the use of applicable water conservation devices, recirculation and reuse strategies, properly designed irrigation systems, and metering for sources and customers.

Docket Reopener—A standard provision in all dockets gives SRBC the right to reopen any project docket to modify and issue such additional orders as may be necessary to mitigate or avoid adverse impacts either to the resources or other water users.

What happens after SRBC approves a project?

Following the commissioners' approval of a docket, SRBC requires the project sponsor to submit monitoring data (consumptive water use and/or ground- or surface-water withdrawals). SRBC staff may conduct investigations to ensure that the standard and/or special conditions contained in the approved docket are being met. Projects that violate conditions may be subject to the imposition of fees and penalties. Any aggrieved party or parties can appeal SRBC's decision to the appropriate federal court.

SRBC also retains the right to reopen the docket to mitigate or avoid adverse impacts.

In addition to direct review and approval action by the commissioners, is there any other way to obtain SRBC approval?

Regulation §806.22(e) – Standards for Consumptive Use, allows any project whose sole source of water for consumptive use is a public water supply withdrawal to obtain SRBC approval via "approval by rule." Once the sponsor of a project has satisfied all of the submission requirements of this paragraph, the Executive Director issues an "approval by rule."

Can SRBC actions on project applications be appealed?

Regulation §808.2 provides an administrative appeal process under which aggrieved parties can request a hearing on actions of SRBC or its Executive Director. Appeals must be filed within 30 days of such actions. If still aggrieved after an appeal, aggrieved parties can then file an appeal in Federal District Court within 90 days of the appeal decision. Alternatively, appeals from SRBC actions can be filed directly in Federal District Court within 90 days if an administrative appeal cannot provide an appropriate remedy.