SUSQUEHANNA RIVER BASIN COMMISSION
NY ▪ PA ▪ MD ▪ USA

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REGULATING WATER USES IN THE SUSQUEHANNA RIVER BASIN

OVERVIEW

The waters of the Susquehanna River are used for many purposes — domestic, municipal, agricultural, commercial, industrial, energy, environmental, and recreational. These competing needs led to the drafting of the Susquehanna River Basin Compact, which was signed into law on December 24, 1970, and provides the framework for managing the basin's water resources in a sustainable manner.

The Compact outlines the Commission's authorities, and the adopted regulations establish the procedures for the submission, review, and consideration of projects. The main purposes of the Commission's regulations are to:

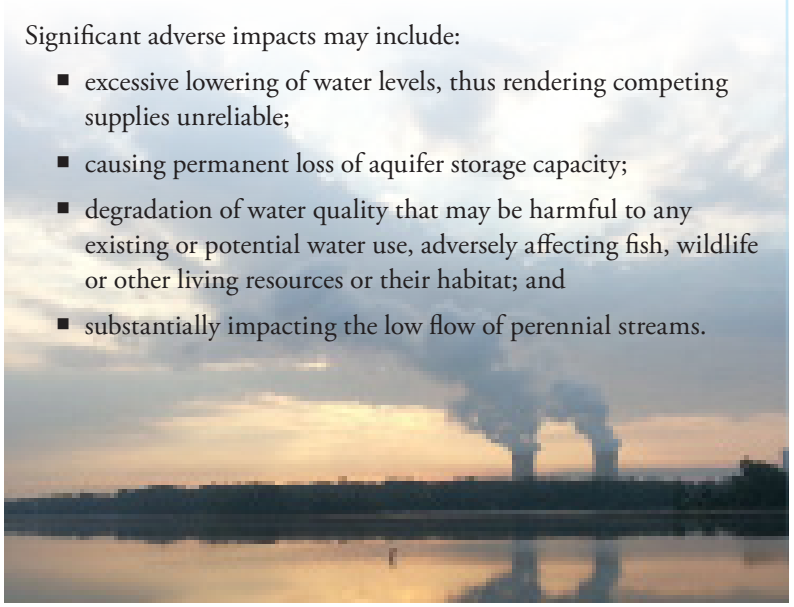
- manage water flows and supplies of surface and ground waters;
- avoid conflicts among water users;
- accommodate reasonable economic development;
- promote healthy fisheries and aquatic habitat;
- protect public health, safety and welfare; and
- ensure adequate flows to the Chesapeake Bay.

WHY IS IT IMPORTANT TO REGULATE WITHDRAWALS?

By regulation, withdrawals are limited to the amount of water (quantity and rate) necessary to meet reasonably foreseeable needs of a project and can be withdrawn sustainably without causing significant adverse impacts.

Significant adverse impacts may include:

- excessive lowering of water levels, thus rendering competing supplies unreliable;
- causing permanent loss of aquifer storage capacity;
- degradation of water quality that may be harmful 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.



WHAT DOES THE COMMISSION REGULATE?

WITHDRAWALS

Removal or withdrawal of 100,000 gallons per day (gpd) or more over a 30-day average from any source or combination of sources within the basin is regulated.

CONSUMPTIVE WATER USES

Consumptive water use is defined as water that is withdrawn either from groundwater or surface-water sources, or from public water supplies, and is used in such a way that it is not returned to the basin undiminished in quantity.

Water is considered lost to the basin when it is evaporated, transpired due to irrigation, incorporated into manufactured products or injected underground.

Any consumptive water use of 20,000 gpd or more over a 30-day average from any water source or combination of sources is regulated. Consumptive water use for agricultural purposes is not currently subject to review or approval by the Commission. This is due to a determination that the Commission and its member states have been providing sufficient consumptive use mitigation for agricultural projects.

DIVERSIONS

Generally, any quantity of water diverted into the basin is subject to review and approval. Also, water withdrawn from any source within the basin and diverted out of the basin is regulated if the quantity is 20,000 gpd or more over a 30-day average, with limited situations that are not subject to review and approval. Agricultural projects are generally not subject to diversion regulations if the property where the irrigation occurs is at least partially within the basin.

NATURAL GAS

Any withdrawal, consumptive use, or diversion for unconventional natural gas activities must obtain Commission approval.

WHY IS IT IMPORTANT TO REGULATE CONSUMPTIVE WATER USE?

Droughts are naturally occurring events that cannot be prevented. However, one of the Commission's roles is to minimize the impacts of consumptive use to water resources during dry conditions. The Commission adopted consumptive water use regulations to help manage and reduce human impacts caused by consumptive water use during low flows and established mitigation requirements to protect natural flow conditions. Regulated consumptive water users are required to mitigate impacts from their use. Several options are listed in regulation, and provisions are in place to allow a project sponsor to propose and implement another alternative approved by the Commission.

The primary mitigation methods utilized by approved projects are:

- reduce water withdrawal by an amount equal to the consumptive use and instead rely on alternate surface or underground storage;
- release water for flow augmentation, in amount equal to the consumptive use, from surface or underground storage facilities;
- discontinue the project's consumptive use;
- use a consumptive use source that maintains a conservation release; and
- provide monetary payment for annual consumptive use.

Monetary payments for consumptive use go into a special water management fund that is used to investigate, develop, and maintain Commission controlled water storage and other alternate strategies for mitigating the cumulative impacts of consumptive water use throughout the basin.

Consumptive water uses take many forms. Left: Recreational irrigation Right: Incorporation into mining products

WHY IS IT IMPORTANT TO REGULATE DIVERSIONS?

Out of basin diversions are generally discouraged because they reduce streamflow while providing no benefits to the water resources of the basin. There are, however, instances where diversions out of the basin are appropriate, such as legitimate public welfare considerations. These projects are required to mitigate for impacts resulting from their use. Into-basin diversions of acceptable water quality are generally acceptable.

Standards for review are specified in regulation. Generally, diversions into the basin are scrutinized for water quality impacts or presence of invasive organisms; diversions out of the basin are regulated as consumptive use because the water withdrawn is lost to the basin.

THE PROCESS OF REVIEWING A PROJECT

PRE-APPLICATION

- ☑ A meeting with Project Review staff is encouraged to determine if the project should be regulated, and if so, what type of application is required.
- ☑ Pre-approved aquifer test required for groundwater withdrawal applications.

ADMINISTRATIVE REVIEW & INTERAGENCY COORDINATION

- ☑ Project entered into Commission database and posted on website.
- ☑ Comments solicited from the public, federal, state and local agencies.
- ☑ Coordination with state/federal agencies.

TECHNICAL REVIEW

- ☑ Site investigation conducted.
- ☑ Evaluation of impacts on public interests and water resources.
- ☑ Adjustments or conditions to withdrawals, consumptive water uses, or diversions may be made to limit or eliminate impacts.
- ☑ Monitoring requirements specified.
- ☑ Agency coordination completed.
- ☑ Recommendations for action presented to the Commissioners.
- ☑ Formal action - Commission may approve, approve with conditions, table, or deny a project docket/ permit.

COMPLIANCE MONITORING

- ☑ Project sponsors must abide by monitoring requirements and quarterly reporting.
- ☑ Commission will conduct routine audits and inspections to ensure compliance with docket conditions.