

## Susquehanna River Basin Commission Information Sheet



# PENNSYLVANIA AGRICULTURAL CONSUMPTIVE WATER USE

## SRBC's Consumptive Water Use Regulations

The Susquehanna River Basin Commission (SRBC) has regulated consumptive water uses since January 23, 1971, which is the effective date of the Susquehanna River Basin Compact. Operations subject to these regulations are those that: (1) began after January 23, 1971; and (2) use in excess of 20,000 gallons per day (gpd) over a 30-day average. Regulated operations are required to compensate in some manner for their water use during times of critical low flows. The goal of the compensation is to restore the streamflow to the levels that would occur if the regulated consumptive use projects were not in operation.

## Agricultural Consumptive Water Use in the Pennsylvania Portion of the Susquehanna River Basin

Like all other consumptive water uses, agricultural consumptive use has the potential to adversely affect aquatic resources and habitats of the basin and can impact other water users. In recognition of the economic and operational burdens on individual farmers to meet SRBC's compensation requirement, SRBC in 1992 temporarily suspended the consumptive water use regulations as they apply to agricultural operations until such time solutions can be identified and implemented. It is the desire of SRBC and the Commonwealth of Pennsylvania to develop a compliance program on behalf of the agricultural community as a whole in lieu of requiring compliance by individual farmers and operators.

## Options for Addressing Agricultural Consumptive Water Use

From July 2002 to December 2005, SRBC undertook the *Pennsylvania Agricultural Consumptive Water Use Study* to review management options for addressing agricultural consumptive water use compensation in the Pennsylvania portion of the Susquehanna basin. The study was funded by a grant from the Pennsylvania Department of Environmental Protection.

As part of the study, SRBC determined that 785 agricultural operations are likely to be subject to SRBC's consumptive use regulations. SRBC further concluded that 15.7 million gpd of water are needed to compensate for that agricultural consumptive use during times of low flow.

SRBC investigated the following five different management options that could potentially provide water to offset that consumptive use of water:

- surface water storage sites (impoundments, unused water bodies, small farm pond construction);
- aquifer storage and recovery methods (underground storage);
- wetlands (to determine recharge capacity);
- water conservation/water recycling/best management practices; and
- regulatory incentives.

SRBC concluded that using a combination of pumping from underground mine pool storage and using storage at public and privately owned surface water impoundments was the preferred method. Also, water conservation/water recycling/best management practices at agricultural operations should be

supported to reduce that portion of agricultural consumptive use not subject to SRBC's consumptive use regulations.

## Pennsylvania Agricultural Consumptive Water Use Study Recommendations

The study includes the following recommendations for implementing the management options for addressing agricultural consumptive water uses in the Pennsylvania portion of the Susquehanna basin:

1. SRBC, in cooperation with the Commonwealth, should identify and implement necessary projects to provide the 15.7 million gpd of water during low flow periods to offset agricultural consumptive water uses.
2. SRBC, in cooperation with the Pennsylvania Department of Environmental Protection Office of Mineral Resources, other appropriate agencies, and independent owners, should perform technical investigations of underground mine pool sites that have the greatest potential for flow augmentation.
3. SRBC, in cooperation with the Pennsylvania Fish & Boat Commission, Pennsylvania Game Commission, Pennsylvania Department of Conservation and Natural Resources, other appropriate agencies, and independent owners, should perform technical investigations of water impoundments that have the greatest potential for flow augmentation.
4. SRBC should continue to work cooperatively with the Pennsylvania agricultural community, including the major farm organizations, the Pennsylvania Department of Agriculture, and other agricultural interests who are members of SRBC's Agricultural Water Use Advisory Committee.

## Progress Report on Implementation Activities: Barnes and Tucker Project

The Commonwealth will be constructing an active treatment system in the West Branch Susquehanna Subbasin to remediate acid discharge from the former Barnes and Tucker mining operation. SRBC is partnering with the Commonwealth on the project to: (1) provide enough water to compensate for 10 million gpd of agricultural consumptive water use during the growing season by discharging water into the Susquehanna watershed; and (1) restore 25 miles of the acid mine drainage (AMD)-impaired West Branch.

The Barnes and Tucker project will address 10 of the 15.7 million gpd needed for compensation. So in conjunction with that project, SRBC is seeking and considering other alternatives to secure the remaining 5.7 million gpd, including: (1) using water-filled quarries; (2) developing underground mine storage; and (3) securing additional surface storage at private and publicly owned reservoirs.

Using a \$6.1 million grant from the Pennsylvania General Assembly and Gov. Ed Rendell, SRBC will contribute \$3.9 million toward the Barnes and Tucker project, and will expend \$2.2 million seeking and implementing the other alternatives.

When the total 15.7 million gpd of compensation water is secured, SRBC will deem the state's agricultural operations to be in compliance with its consumptive use regulations.

