STATE WATER PLAN INITIAL PROJECT PROFILE

A state water plan will be built upon a series of technical studies or tools. These will be designed to provide decision makers with the necessary data to conceive, develop, prioritize and implement measures that will address existing water supply issues and create a vision for future water resources development for the Commonwealth. Two fundamental areas of technical study are proposed that will be complemented by several lesser projects that together will provide a basis for developing a state water plan (see attached presentation from the October Board meeting for process overview).

Water Availability

A statewide water availability assessment will be performed at a planning unit level to inventory the regional water sources and assess annual and seasonal surplus and deficit based on hydrological records, models or other methods and known withdrawal and instream flow demands.

Demand Forecasting

Projecting future water demands for water supply, agriculture, industry, mining, energy production and other needs is a key part of developing a long-term vision for the state's water resources. Reliable projections for water demands combined with a water availability assessment will be used to identify gap areas where water demands may exceed supply, serving as the basis for water plan development.

Other related projects and studies

Drought Risk Assessment: a drought risk assessment will be developed by the Division of Water in 2017. One of the principal water use sectors included in the assessment will be agricultural drought risk based on regional vulnerability to drought in crop and animal production operations. Data from this assessment may inform both the Water Availability and Demand Forecasting technical studies. This project is funded by a grant from FEMA.

Aquifer Designation: developed for all regulated groundwater withdrawals in Kentucky , or for a region in a pilot study. Data and methods developed for this study are expected to contribute to more detailed characterization studies of aquifers that are or may become high-use aquifers, most notably in the Jackson Purchase area. This study will be proposed as part of a USGS Water Use Data and Reporting grant (WUDR) in cooperation with KGS.

Water Tracking: Tracking the various uses of water that produced by the state's 397 Public water systems (PWS). Treated water is used for domestic, commercial, industrial, mining, agricultural and other purposes. This study will include an assessment of the demands that may be placed on PWS by livestock water demand, especially under seasonal high demand or drought conditions. It is anticipated that this study can be funded by leveraging funds from a WUDR grant with other funding sources.

Water Plan Development and Public Participation: Local/regional stakeholder involvement to shape the water plan's regional priorities.

Estimated Timeline and Budget

Duration: 5 years

Initial scoping for a state water plan will be done by the Technical Data and Plan Development committees of the Water Resources Board.

Budget:

Potential sources of funding at present are Corps of Engineers Planning Assistance Grant, USGS WUDR grant, FEMA Hazard Mitigation Planning Grant and Agricultural Development Fund.

Planning Assistance and Demand Forecasting (non-agricultural) - $150,000

Agricultural Demand Forecasting - $100,000

Public Outreach and Stakeholder Involvement - $100,000

Water Availability - $150,000

Water Tracking - $50,000

Miscellaneous Projects (data and model development) - $100,000

Total - $650,000

Annual - $130,000