

COLLABORATIVE WATER SUPPLY PLANNING: A SHARED VISION APPROACH FOR THE RAPPAHANNOCK BASIN

SESSION ABSTRACT

Water supply planning involves a complex mixture of technical analysis and value judgments. Technical analysis is needed to determine current and future water availability, risks, and water use patterns. Value judgments are required to determine how water will be allocated and shared between localities, how risks of water shortage will be shared among competing uses, and what uses of water are acceptable. Conflict in water supply planning arises when there are fundamental conflicts in the underlying values held by participants, but the conflicts are often obscured and persist because participants argue as if technical analysis alone will resolve the conflicts.

This session will review recent efforts of a regional river basin planning commission (Rappahannock River Basin Commission) in Virginia to implement an alternative approach to water supply planning, called “Shared Vision Modeling” (SVM). By design, SVM integrates technical analysis into a collaborative planning and negotiation process. SVM relies on stakeholders representing a wide range of interests to help construct a computer simulation of the river basin system. By jointly constructing a “shared vision model”, the process encourages participants to identify mutual gains and address underlying fundamental goals and values. The simulation model is constructed on a software platform that is transparent, flexible, and easy to use. Ease of use and stakeholder confidence in the model facilitates stakeholders’ evaluation of the consequences of future economic, demographic, and climatic conditions on water supply management and in-stream uses.

Speakers at this session will provide an overview of the shared vision planning process and describe how conflict between stakeholders can be channeled into a constructive water supply planning process. Next, the history and experience of the shared vision process in the Rappahannock basin (Virginia) will be described and analyzed. The last half of the session will be devoted to explaining and illustrating the structure, content, and capabilities of the Rappahannock River Basin Commission’s shared vision simulation model.

SPEAKERS

Lauren Cartwright, Institute of Water Resources, US Army Corps of Engineers
Jeffrey Connor, Engineering Fundamentals, Virginia Tech
William Cox, Civil and Environmental Engineering, Virginia Tech
Kurt Stephenson, Department of Agricultural and Applied Economics, Virginia Tech