

1960's Forecast of shortage

The history of cooperative water supply management in the Washington, D.C. metropolitan area begins in the early 1960s, when projected growth in demand for Potomac water exceeded available supply.

In 1963, the U.S. Army Corps of Engineers conducted a comprehensive study of the Potomac River basin in order to identify solutions to the anticipated shortfall in meeting projected demand. The proposed construction of 16 large multi-purpose reservoirs in the Potomac River basin met unexpected difficulty with public acceptance, and authorization and appropriation of construction funds. In the drought of 1966, flow in the Potomac was lower than the projected future demand; unrestricted water use would cause the river to go dry. Increasing population and droughts in the 1960's and 1970's added to the motivation to develop new resources. Of the 16 projects proposed, only Jennings Randolph Lake was constructed. Jennings Randolph was originally called Bloomington Lake, and was completed in 1981.

In addition to the proposed multipurpose reservoirs, other structural solutions were examined. Interbasin transfers were studied, a pilot estuarine treatment plant was constructed and tested, and an emergency estuarine pumping station was constructed.

Concurrently, a study of the situation was being conducted which treated the combined distribution areas of the three major Washington metropolitan area utilities as a single regional demand center, and investigated the coordinated operation of all the resources then available. The three utilities are the Fairfax County Water Authority (FCWA), Washington Suburban Sanitary Commission (WSSC), and the Washington Aqueduct Division (WAD) of the Corps of Engineers. The study showed that coordinated management of the water resources from a systems perspective led to gains in reliability of the water resource. The results of the latter analysis and its lower cost non-structural features led to the adoption of its results with the signing of the Water Supply Coordination Agreement in 1982.

Cooperative solutions

In 1982, The Water Supply Coordination Agreement was developed among FCWA, WSSC, WAD, and the Interstate Commission on the Potomac River Basin. The ICPRB

CO-OP History

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Section for Cooperative Water Supply Operations on the Potomac (CO-OP) was designated by the Water Supply Coordination Agreement to be responsible for coordination of water resources during times of low flow. The management objectives embodied in the agreement and practiced by CO-OP are to keep the off-Potomac reservoir resources balanced while meeting environmental requirements and municipal demands for water.

The coordinated operations of the resources allows the utilities to meet demands through the year 2025 even under a repeat of the drought of record. This is possible because of synergistic gains in total yield realized under the cooperative management strategies.

Each of the three utilities gives up a small measure of autonomy in order to gain the substantial benefits of reduced capital costs through coordinated cooperative operations of their individually and jointly owned resources. As an independent interjurisdictional organization, ICPRB is particularly well suited to engage in multi-state coordinated cooperative functions.

In order to avoid the possibility of withdrawing all the flow of the river, Maryland Department of Natural Resources conducted the Potomac River Environmental Flow-By Study (1981). The parties to the Potomac River Low Flow Allocation Agreement (1978) agreed to abide by the study's recommendations for the maintenance of instream flows to meet minimum aquatic habitat requirements.

The management of the cooperative water resource systems' operations is overseen by a committee of the water utilities. The water utilities provide the funding for these activities at the Interstate Commission on the Potomac River Basin.

A [map](#) of the current source areas for the three major Washington metropolitan area water suppliers includes wholesale customers. These wholesale customers purchase treated water from Fairfax County Water Authority (FCWA) and the Washington Aqueduct (eg. Washington, D.C. Water and Sewer Authority purchases water from the Washington Aqueduct and supplies

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residents of Washington, D.C. with water.)