

EXECUTIVE SUMMARY

The purpose of this Phase I Report for the Lower Susquehanna River Basin (LSRB) Comprehensive Water Management Study is to summarize the characteristics of the LSRB, identify the major water-related issues in the basin, and to identify specific areas that need additional study in order to address the current water-related issues. The U.S. Army Corps of Engineers, Baltimore District has worked in partnership with the Pennsylvania Department of Environmental Protection (PADEP), the Susquehanna River Basin Commission (SRBC), and the Capital Region Water Board (CRWB) to complete this Phase I Report and to develop a plan of study for a Comprehensive Water Management Plan for the LSRB during Phase II.

The study area, the LSRB, is located in south-central Pennsylvania and, as defined for this study, is comprised of all or portions of 13 watersheds: Chickies, Codorus, Conestoga, Conewago, Conodoguinet, Deer, Muddy, Octoraro, Pequea, Sherman, Swatara, Yellow Breeches, and the mainstem of the Susquehanna River. The study area covers approximately 4,238 square miles and stretches primarily across eight counties, while including lesser portions of three others. Land use within the basin is dominated by agricultural and forested lands, which account for 92 percent of the basin. However, the basin also includes substantial high density development and several metropolitan areas such as Harrisburg, York, Lancaster, Lebanon, and Hanover.

Baseline information for the LSRB has been compiled and is presented in Section 2.0. The complex ecosystem within the LSRB has experienced significant population growth in recent years, placing pressure on existing water resources to provide water for drinking, irrigation, and energy, while maintaining a water quantity and quality balance to sustain the needs of fish, wildlife, and vegetation. Additionally, growth generally brings an increase in impervious surfaces and other development issues that can affect the quality of the existing water resources within the LSRB. Important water resources issues have been discussed by participants during the study's Phase I public process and are detailed in Section 3.0 of this report.

Population growth within the LSRB is predicted to continue, increasing by approximately 280,000 by 2020, a 16.3 percent change. The combination of the expected population growth and increase in development and impervious surfaces would also continue to impact the existing water resources in the LSRB. In addition, the LSRB has suffered drought in recent years, including 1999, 2001, and 2002. The combination of growth and recent drought conditions has raised public awareness and concern regarding future water resources within the LSRB. In order to manage the existing resources to accommodate predicted growth while minimizing undesirable impacts and taking potential future drought conditions into consideration, a comprehensive watershed plan needs to be developed.

Development of a Comprehensive Water Management Plan is recommended during Phase II of this study and a Plan of Study for this effort is appended to this report at Tab E. The purpose of this plan would be to provide the Commonwealth of Pennsylvania, the SRBC and LSRB municipalities with the information necessary for making informed decisions on the allocation, utilization, and conservation of the water resources within the region. This plan would also address competing water resource needs into the future, while supporting economic development and contributing to environmental improvements across the LSRB.