HYDROLOGY OF THE UNCONFINED AQUIFER SYSTEM, SALEM RIVER AREA, SALEM RIVER AND RACOON, OLEMSAN, ALLOWAY, AND STONE CREEK BASINS, NEW JERSEY, 1993-94

By Matthew L. Johnson and Edmund C. Charles

INTRODUCTION

This hydrogeologic study was completed in cooperation with the New Jersey Department of Environmental Protection (NJDEP). The purpose of the study was to determine the spatial and temporal distribution of the recharge to the unconfined aquifer beneath the Salem River area and the Rockaway, Salem River, Salem, Raccoon, Alloway, and Stone Creek (ARSAL) basins. The recharge estimates were developed using a method based on the methods of Arsenault and others (1980) and are intended to provide a first-order approximation of the recharge to the unconfined aquifer beneath the ARSAL basins. The recharge estimates were developed using a method based on the methods of Arsenault and others (1980) and are intended to provide a first-order approximation of the recharge to the unconfined aquifer beneath the ARSAL basins.

Figures and Tables

The study area includes a map of the Salem River area and the Rockaway, Salem River, Salem, Raccoon, Alloway, and Stone Creek (ARSAL) basins. The map shows the location of the ARSAL basins and the study area. The map also shows the location of the recharge estimates. The recharge estimates were developed using a method based on the methods of Arsenault and others (1980) and are intended to provide a first-order approximation of the recharge to the unconfined aquifer beneath the ARSAL basins.

Acknowledgments

The authors acknowledge the assistance of the U.S. Geological Survey, New Jersey Department of Environmental Protection, and the New Jersey Institute of Technology in the preparation of this report.

GROUNDWATER AND HYDROGEOLOGIC UNITS

The study area includes a map of the Salem River area and the Rockaway, Salem River, Salem, Raccoon, Alloway, and Stone Creek (ARSAL) basins. The map shows the location of the ARSAL basins and the study area. The map also shows the location of the recharge estimates. The recharge estimates were developed using a method based on the methods of Arsenault and others (1980) and are intended to provide a first-order approximation of the recharge to the unconfined aquifer beneath the ARSAL basins.