Cover Photos: View of the Ipswich River between Russell Street and the South Middleton Dam. Normal streamflow in this reach is shown in the bottom left photo. Dry riverbed photo taken during the summer drought of 1999.

Photo courtesy of David Armstrong and Timothy Driskell, U.S. Geological Survey, Northborough, Mass.

## A Precipitation-Runoff Model for Analysis of the Effects of Water Withdrawals on Streamflow, Ipswich River Basin, Massachusetts

By PHILLIP J. ZARRIELLO and KERNELL G. RIES, III

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## U.S. DEPARTMENT OF THE INTERIOR BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY Charles G. Groat, Director

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