LISTINGS OF VALUES FOR THE SIMULATION OF THE REGIONAL GEOHYDROLOGY OF THE TESUQUE AQUIFER SYSTEM NEAR SANTA FE, NEW MEXICO

Supplement to Water-Resources Investigations Report 87-4056

By Douglas P. McAda

U.S. GEOLOGICAL SURVEY

Open-File Report 88-326

Prepared in cooperation with the

SANTA FE METROPOLITAN WATER BOARD

Albuquerque, New Mexico

1988

DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information
write to:

District Chief
U.S. Geological Survey
Water Resources Division
Pinetree Office Park
4501 Indian School Rd. NE, Suite 200
Albuquerque, New Mexico 87110

Copies of this report can
be purchased from:

U.S. Geological Survey
Books and Open-File Reports Section
Federal Center
Box 25425
Denver, Colorado 80225

CONTENTS

TABLES

TABLES - Concluded

LISTINGS OF VALUES FOR THE SIMULATION OF THE REGIONAL GEOHYDROLOGY OF THE TESUQUE AQUIFER SYSTEM NEAR SANTA FE, NEW MEXICO

Supplement to Water-Resources Investigations Report 87-4056

By Douglas P. McAda

ABSTRACT

This report contains listings of values for simulation of three-dimensional digital ground-water flow in the Tesuque aquifer system in the Santa Fe, New Mexico, area. These simulations were developed by McAda and Wasiolek (McAda, D.P., and Wasiolek, Maryann, 1988, Simulation of regional geohydrology of the Tesuque aquifer system near Santa Fe, New Mexico: U.S. Geological Survey Water-Resources Investigations Report 87-4056). Values for the steady-state simulation, the 1947-82 simulation, and two simulations of future ground-water withdrawals from 1983 to 2020 are listed.

INTRODUCTION

A three-dimensional digital ground-water flow model of the Tesuque aquifer system in the Santa Fe, New Mexico, area has been developed by McAda and Wasiolek (1988). This report, which contains listings of values used in that model, was prepared in cooperation with the Santa Fe Metropolitan Water Board as a supplement to that report. The computer code used for the model was developed by McDonald and Harbaugh (1984).

The text and tables contained in this report may be obtained on 360 kilobyte IBM-PC compatible diskettes. These diskettes may be purchased from the U.S. Geological Survey Books and Open-File Reports Section at the address shown in the beginning of report.

MODEL VALUES

The Tesuque aquifer-system digital model developed by McAda and Wasiolek (1988) was calibrated using simulations of the predevelopment steady-state condition and the 1947-82 historical period. Aquifer responses were simulated for future ground-water withdrawals to meet small and large water-demand projections from 1983 to 2020. Values for all four of these simulations are listed in tables 1-17.

Each table contains a listing of the values for a particular modular-model package as defined by McDonald and Harbaugh (1984). The tables are grouped by package rather than by simulation because the values for several of the packages are identical for two or more of the simulations.

SELECTED REFERENCES

McAda, D.P., and Wasiolek, Maryann, 1988, Simulation of the regional geohydrology of the Tesuque aquifer system near Santa Fe, New Mexico: U.S. Geological Survey Water-Resources Investigations Report 87-4056, 71 p.

McDonald, M.G., and Harbaugh, A.W., 1984, A modular three-dimensional finite-difference ground-water flow model: U.S. Geological Survey Open-File Report 83-875, 528 p.