

MAP 1 DEPTH TO WATER AND ALTITUDE OF THE WATER LEVEL

EXPLANATION

- 178 M.W. IN WHICH DEPTH TO WATER WAS MEASURED IN 1991-92--upper number, 178, is depth to water in ft below land surface. Lower number, 948, is the altitude of the water level in ft.
- 110 M.W. IN WHICH DEPTH TO WATER WAS MEASURED WITH SIGNIFICANTLY HIGH WATER LEVEL IN 1991-92--upper number, 113, is depth to water in ft below land surface. Lower number, 1110, is the altitude of the water level in ft.
- APPROXIMATE AREA OF SIGNIFICANT WATER-LEVEL DIFFERENCES--higher levels in some wells more than 25 ft higher than in nearby wells which represent conditions in the primary part of the main aquifer system
- HARDROCK (igneous, metamorphic, or sedimentary rock)
- BASIN-FILL DEPOSITS (silt, sand, clay, gravel, conglomerate, sandstone, mudstone, evaporites, and volcanic)
- 950 WATER-LEVEL CONTOUR--Shows approximate altitude of the water-level in the primary part of the main aquifer system in 1991-92. Contour intervals 50 and 100 ft
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW IN THE PRIMARY PART OF THE MAIN AQUIFER SYSTEM
- BOUNDARY OF THE PHOENIX ACTIVE MANAGEMENT AREA

0 50 100 METERS
0 50 100 FEET
INDEX MAP SHOWING AREA OF REPORT (SHADED)

For readers who prefer to use metric units rather than inch-pound units, the conversion factors for the terms used in this report are listed below:

Multiply inch-pound unit	By	To obtain metric unit
inch	25.4	millimeter
foot	0.3048	meter
square foot	0.0929	square meter
square mile	2.590	square kilometer
acre	0.4047	cubic hectometer
acre-foot	0.001233	cubic hectometer
gallons per minute	0.06309	liters per second

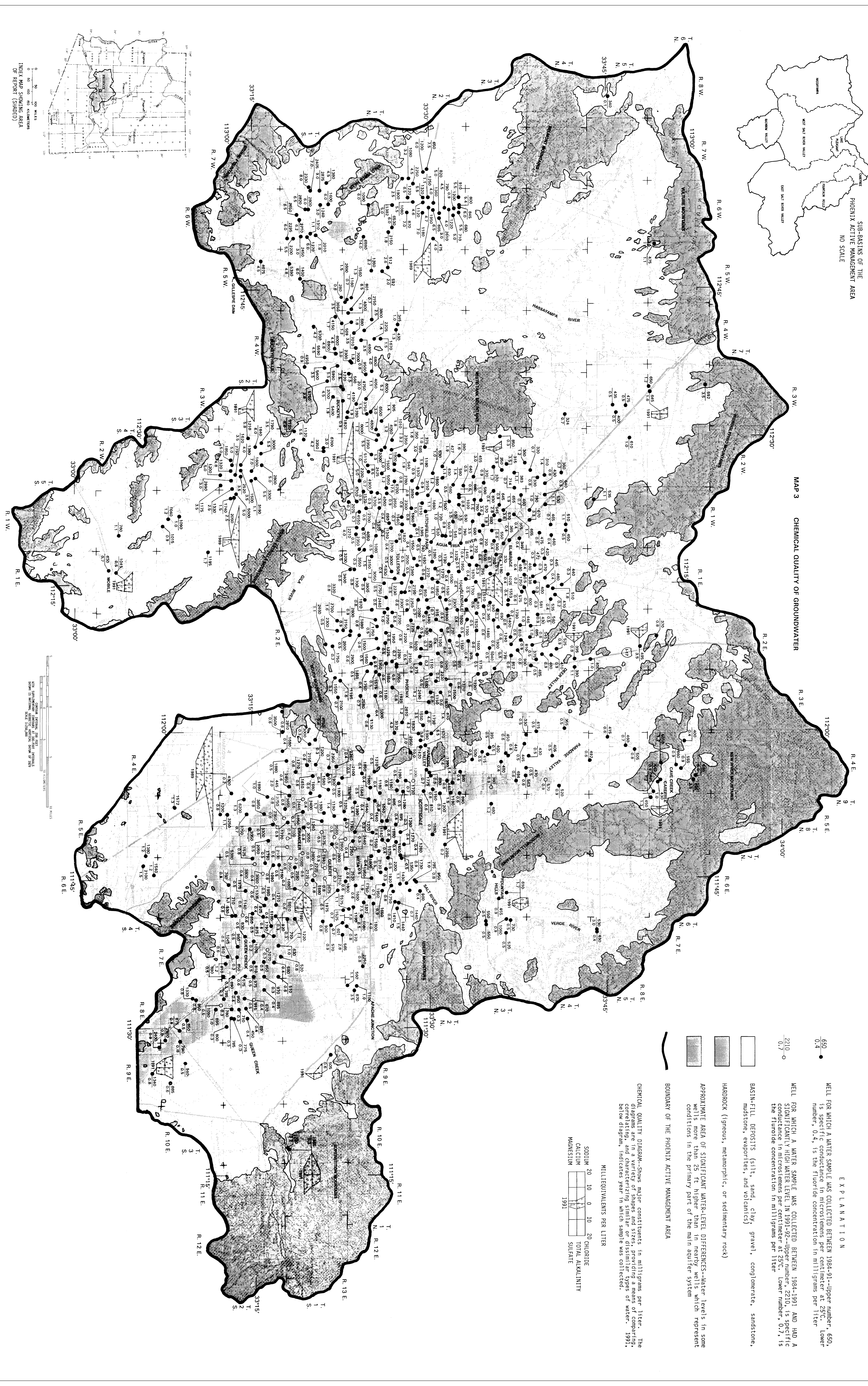
MAPS SHOWING GROUNDWATER CONDITIONS IN THE PHOENIX ACTIVE MANAGEMENT AREA

MARICOPA, PINAL, AND YAVAPAI COUNTIES, ARIZONA--1992

BY B. A. HAMMETT AND R. L. HERTHER

MAPS AND DATA ACQUIRED FROM THE
MARICOPA COUNTY WATER DEPARTMENT
MARICOPA COUNTY, ARIZONA, 1991-1992
PINAL COUNTY WATER DEPARTMENT
PINAL COUNTY, ARIZONA, 1991-1992
YAVAPAI COUNTY WATER DEPARTMENT
YAVAPAI COUNTY, ARIZONA, 1991-1992

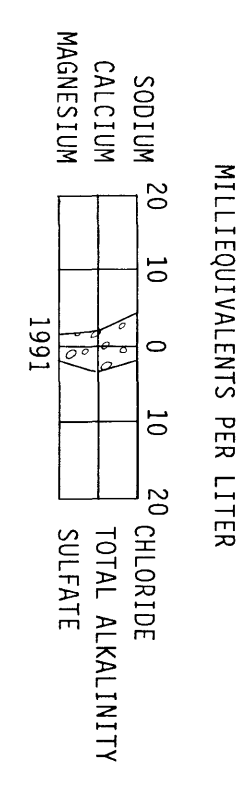
These hydrologic maps are available upon request from the Department of Water Resources, Arizona State University, 800 S. Central Expressway, Phoenix, Arizona 85024. The hydrologic data on which these maps are based were obtained from the Department of Water Resources, Arizona State University, 800 S. Central Expressway, Phoenix, Arizona 85024. The maps were prepared by the Department of Water Resources, Arizona State University, 800 S. Central Expressway, Phoenix, Arizona 85024.



MAP 3
CHEMICAL QUALITY OF GROUNDWATER

EXPLANATION

- 650
0.4 ● WELL FOR WHICH A WATER SAMPLE WAS COLLECTED BETWEEN 1984-91--Upper number, 650, is specific conductance in microsiemens per centimeter at 25°C. Lower number, 0.4, is the fluoride concentration in milligrams per liter.
- 2210
0 ● WELL FOR WHICH A WATER SAMPLE WAS COLLECTED BETWEEN 1991-1991 AND HAD A SIGNIFICANTLY HIGH WATER LEVEL IN 1991-92--Upper number, 2210, is specific conductance in microsiemens per centimeter at 25°C. Lower number, 0.7, is the fluoride concentration in milligrams per liter.
- BOUNDARY OF THE PHOENIX ACTIVE MANAGEMENT AREA
- APPROXIMATE AREA OF SIGNIFICANT WATER-LEVEL DIFFERENCES--Water levels in some wells more than 25 ft higher than in nearby wells which represent conditions in the primary part of the main aquifer system
- HARDROCK (igneous, metamorphic, or sedimentary rock)
- BASIN-FILL DEPOSITS (silt, sand, clay, gravel, conglomerate, sandstone, mudstone, evaporites, and volcanics)



CHEMICAL QUALITY DIAGRAM--Shows major constituents in milligrams per liter. The diagram is plotted on a standard hydrochemical diagram. The upper number is the specific conductance in microsiemens per centimeter at 25°C. The lower number is the fluoride concentration in milligrams per liter. The year in which sample was collected.

MAPS SHOWING GROUNDWATER CONDITIONS IN THE PHOENIX ACTIVE MANAGEMENT AREA

MARICOPA, PINAL, AND YAVAPAI COUNTIES, ARIZONA--1992

BY
B. A. HAMMETT AND R. L. HEKHTER

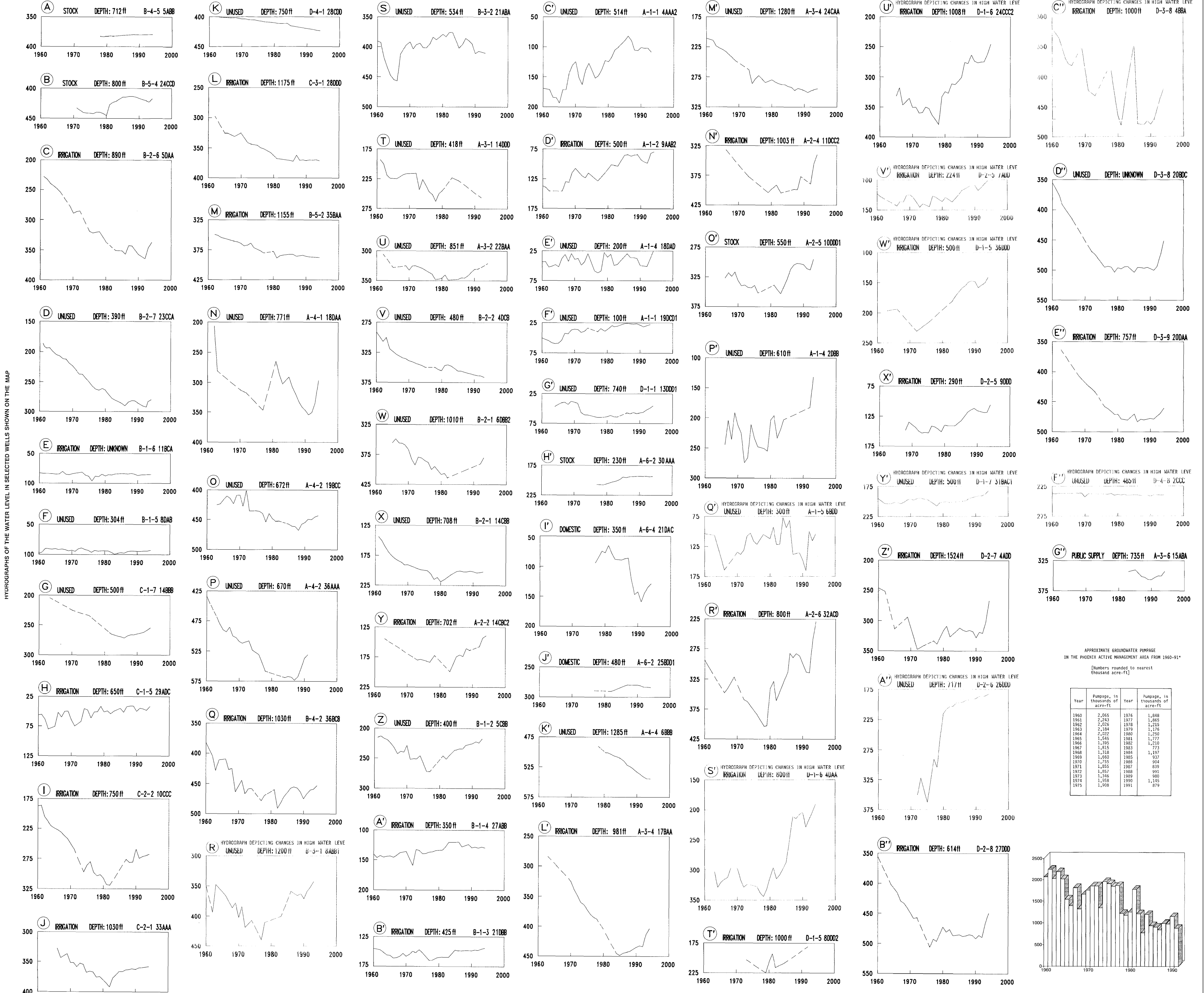
BASE MAPS FROM U.S. GEOLOGICAL SURVEY
PHOENIX ACTIVE MANAGEMENT AREA
MARICOPA COUNTY, ARIZONA
PINAL COUNTY, ARIZONA
YAVAPAI COUNTY, ARIZONA
ARIZONA DEPARTMENT OF WATER RESOURCES
PHOENIX, ARIZONA

INDEX MAP SHOWING AREA
OF REPORT (SHADED)

1:50,000
1:100,000
1:200,000
1:500,000
1:1,000,000

These hydrologic maps are available upon request from the Department of Water Resources, Arizona State University, 855 North Central Avenue, Phoenix, Arizona, 85024. The hydrologic data on which these maps are based are available, for the most part, in computer printout form and may be computerized. For more information, contact the Department of Water Resources, Arizona State University, 855 North Central Avenue, Phoenix, Arizona, 85024.

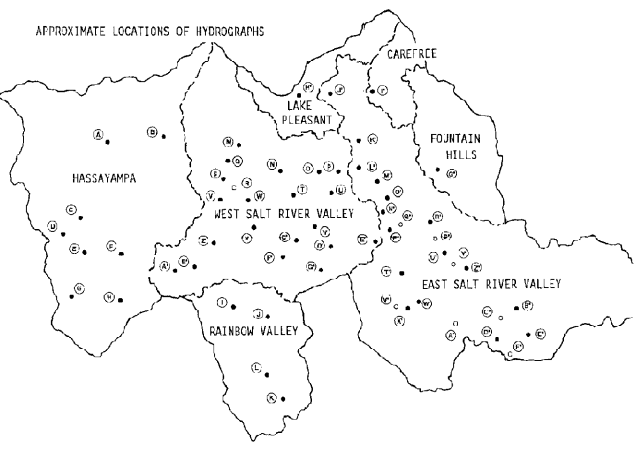
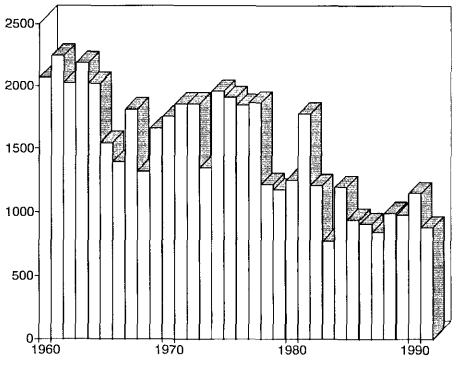
WATER LEVEL, IN FEET, BELOW LAND SURFACE
(Dashed line indicates inferred water level)



HYDROGRAPHS OF THE WATER LEVEL IN SELECTED WELLS SHOWN ON THE MAP

APPROXIMATE GROUNDWATER PURCHASE
IN THE PHOENIX ACTIVE MANAGEMENT AREA FROM 1960-91*
(Numbers rounded to nearest
thousand acre-ft)

Year	Purchase, in thousands of acre-ft	Year	Purchase, in thousands of acre-ft
1960	2,055	1976	1,848
1961	2,243	1977	1,865
1962	2,078	1978	1,415
1963	2,184	1979	1,376
1964	2,027	1980	1,250
1965	1,875	1981	1,377
1966	1,885	1982	1,250
1967	1,815	1983	775
1968	1,320	1984	1,107
1969	1,405	1985	937
1970	1,755	1986	954
1971	1,805	1987	838
1972	1,497	1988	993
1973	1,144	1989	960
1974	1,088	1990	1,145
1975	1,008	1991	879



BASE FROM U.S. GEOLOGICAL SURVEY
PHOENIX, ARIZONA, 1964, REV. 1969, 1:260,000
MESA, ARIZONA, 1964, REV. 1976, 1:260,000
AJO, ARIZONA, 1963, REV. 1969, 1:260,000
HOLBROOK, ARIZONA, 1964, REV. 1970, 1:260,000

These hydrologic maps are available upon request from the Department of Water Resources, Basic Data Section, 2810 South 24th Street, Suite 122, Phoenix, Arizona, 85034. The hydrologic data on which these maps are based are available, for the most part, in computer-printout form and may be consulted at the Department of Water Resources and at the U.S. Geological Survey offices located at: 375 S. Euclid, Tucson, Arizona, 85719, and 1545 West University, Tempe, Arizona, 85281.

**MAPS SHOWING GROUNDWATER CONDITIONS IN THE PHOENIX ACTIVE MANAGEMENT AREA
MARICOPA, PINAL, AND YAVAPAI COUNTIES, ARIZONA--1992
BY
B. A. HAMMETT AND R. L. HERTHER**