WATER-LEVEL MAPS OF THE ALLUVIAL AQUIFER, NORTHWESTERN MISSISSIPPI APRIL 1982

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The alluvial plain of the Mississippi River in northwestern Mississippi includes about three-fourths of the land area of the state. It is the most fertile of all the Mississippi River alluvial plains and is an important agricultural area. The present study of the water-level changes in the alluvial aquifer in the Mississippi River alluvial plain was conducted to examine the effects of changing water levels on the environment and agriculture. The study was conducted in cooperation with the U.S. Geological Survey and the Mississippi Department of Natural Resources.

ALLUVIAL AQUIFER

The alluvial aquifer in the Mississippi River alluvial plain is composed of deposits of sand, silt, and clay. The deposits are typically fine-grained and are characterized by high permeability. The aquifer is recharged by surface water and groundwater, and it discharges to surface water. The alluvial aquifer is an important water resource in northwestern Mississippi, providing water for irrigation, industry, and municipal use.

WATER-LEVEL CHANGE MAP

The water-level change map shows the changes in water levels from April 1981 to April 1982. The map indicates that water levels generally decreased from April 1981 to April 1982. The largest decreases in water levels occurred in the western part of the study area, while the smallest decreases occurred in the eastern part. The map also shows that water levels were generally higher in the spring of 1981 than in the spring of 1982.

WATER-LEVEL CHANGE MAP SEPTEMBER 1981–APRIL 1982

The water-level change map shows the changes in water levels from September 1981 to April 1982. The map indicates that water levels generally decreased from September 1981 to April 1982. The largest decreases in water levels occurred in the western part of the study area, while the smallest decreases occurred in the eastern part. The map also shows that water levels were generally higher in the spring of 1981 than in the spring of 1982.

ADDITIONAL INFORMATION

The study was conducted in cooperation with the U.S. Geological Survey and the Mississippi Department of Natural Resources. The study was funded by the U.S. Geological Survey and the Mississippi Department of Natural Resources. The study was conducted in cooperation with the U.S. Geological Survey and the Mississippi Department of Natural Resources.

SELECTED REFERENCES


The included units used in this report may be converted to metric units by the use of the following conversion factors:

- To convert to metric units:
  - Length: 1 inch = 2.54 centimeters
  - Area: 1 square foot = 0.093 square meters
  - Volume: 1 cubic foot = 0.028 cubic meters
  - Mass: 1 pound = 0.454 kilograms
  - Speed: 1 mile per hour = 0.447 meters per second
  - Acceleration: 1 foot per second squared = 9.807 meters per second squared
  - Pressure: 1 pound per square inch = 6.895 kilopascals
  - Power: 1 horsepower = 0.746 kilowatts

- To convert to U.S. customary units:
  - Length: 1 meter = 3.281 feet
  - Area: 1 square meter = 10.76 square feet
  - Volume: 1 cubic meter = 35.32 cubic feet
  - Mass: 1 kilogram = 2.205 pounds
  - Speed: 1 meter per second = 2.237 miles per hour
  - Acceleration: 1 meter per second squared = 2.237 feet per second squared
  - Pressure: 1 kilopascal = 0.145 pounds per square inch
  - Power: 1 kilowatt = 1.341 horsepower

Base map modified from U.S. Geological Survey map of Mississippi, scale 1:100,000, 1980.