CURRENT WATER RESOURCES ACTIVITIES

IN ALABAMA, FISCAL YEAR 1986

By Larry J. Slack and Elizabeth A. Meadows

U.S. GEOLOGICAL SURVEY

Open-File Report 86-131

Tuscaloosa, Alabama

1986

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

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IN ALABAMA,

1986

ABSTRACT

The purpose of this report is to describe the current (as of 1986) water resources activities of the U.S. Geological Survey in Alabama. The responsibilities and objectives of the Survey; organization of the Alabama District; sources of funding; current projects; hydrologic data program; and a selected bibliography of hydrologic reports are presented.

Water-resources projects are undertaken usually at the request of and with partial funding from another agency, provided: they are high priority problems and generally identified to fall within the mission of the Water Resources Division and they are consistent with the Program Management Plan developed by the Water Resources Division in Alabama to meet the long range plan for hydrologic data in the State.

INTRODUCTION

The U.S. Geological Survey has many hydrologic or hydrologic related studies. These studies are in cooperation with municipal, county, State, and Federal agencies. The purpose of this report is to keep everyone appraised of the current water resources activities (as of January 1986) of the Water Resources Division of the Survey in Alabama.

RESPONSIBILITIES AND OBJECTIVES OF THE GEOLOGICAL SURVEY

The overall mission of the U.S. Geological Survey's Water Resources Division is to provide the hydrologic information and understanding for the best use and management of the Nation's water resources. For almost a century, the U.S. Geological Survey has studied the occurrence, quantity, quality, distribution, and movement of the surface and underground water that composes the Nation's water resources. As the principal Federal water-data agency, the Geological Survey collects and disseminates about 70 percent of the water data currently used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. This nationwide program, which is carried out through the Water Resources Division's 42 District offices and 4 Regional offices, includes the collection, analysis, and dissemination of hydrologic data and water-use information, areal resource appraisals and other interpretive studies, and research projects. Much of this work is a cooperative effort in which planning and financial support are shared by State and local governments and other Federal agencies.

Water-resources projects are undertaken usually at the request of and with partial funding from another agency, provided: they are high priority problems and generally identified to fall within the mission of the Water Resources Division; and are consistent with the Program Management Plan developed by the Water Resources Division in Alabama to meet the long range plan for hydrologic data in the State.

The program in Alabama is carried out, in large part, through cooperation with other Federal and non-Federal agencies, and is accomplished by:

° Collecting, on a systematic basis, data needed for the continuing determination and evaluation of the quantity, quality, and use of the nation's water resources.

° Conducting analytical and interpretative water-resources appraisals describing the occurrence; availability; and the physical, chemical, and biological characteristics of surface and ground water.

° Conducting supportive basic and problem-oriented research in hydraulics, hydrology, and related fields of science to improve the scientific basis for investigations and measurement techniques and to understand hydrologic systems sufficiently well to quantitatively predict their response to stress, either natural or man-made.

° Disseminating hydraulic data and results of investigations and research, in the form of reports, maps, computerized information services, and other forms of public releases.

° Coordinating activities of federal agencies in the acquisition of water data for streams, lakes, reservoirs, estuaries, and aquifers.

° Providing scientific and technical assistance in hydrologic fields to other federal, state, and local agencies, to licensees of the Federal Energy Regulatory Commission, Federal Power Commission, and to international agencies on behalf of the Department of State.

ORGANIZATION OF THE U.S. GEOLOGICAL SURVEY

The national headquarters of the Geological Survey is located in Reston, Virginia. In addition to the Water Resources Division, the Geologic Division and Mapping Division are also headquartered at the Reston facility. Field operations of the Water Resources Division are carried out through four regional offices, several research project offices and district offices, one of which is the Alabama district with headquarters in Tuscaloosa, Alabama.

ORGANIZATION OF THE ALABAMA DISTRICT

The District Chief has the overall responsibility for the Alabama District including operation, program, policies, and cooperator relations with Federal, State, and local agencies.

District Chief's Office

District Chief
U.S. Geological Survey
520 19th Avenue
Tuscaloosa, Alabama 35401

Phone: Commercial (205) 752-8104
FTS 229-2957

Functions and Responsibilities

The Office of the District Chief assists the District Chief with his responsibilities and major functions include:

- Developing a suitable and agreeable cooperative program to provide hydrologic and environmental data.
- Selecting independent activities that relate these data to significant water problems.
- Relating the assignment of personnel and expenditure of funds to the accomplishments of the objectives.
- Communicating technical results in the most efficient manner.

A District Advisory Group provides a means of interdiscipline group action in problem solving. The group assists in developing District policy and establishing goals, planning and reviewing program and projects, analysis of administrative and technical matters, analysis of personnel needs and training to utilize the diverse talents of individuals in the most effective manner, and developing and implementing operational policies and procedures.

Discipline specialists provide a statewide overview of the programs of the district. Their responsibilities include planning of data networks and statewide projects, coordination of statewide projects whose workload is split between the district, subdistrict, and Cullman offices, and quality-control and review of project reports and basic records. Recommendations on policy and procedural matters are made to the District Chief who decides on implementation.

Clerical support to the activities of the District is also the responsibility of the District Chief's office. This support includes typing letters, memoranda, technical and administrative reports, maintenance of district files and technical library, and receiving and routing mail.

Administrative Services Section

Functions and Responsibilities

Under supervision of an Administrative Officer, the Administrative Services Section provides administrative support to the District concerning fiscal and budgetary affairs, personnel administration, and office service and supplies.

Computer Services Section

Functions and Responsibilities

Under supervision of the District Chief, the Computer Services Section provides computer services for the District. These services include maintaining and operating a Prime computer, entering and upkeep of data in the Reston computer, running routine programs for District personnel, and solving problems arising from user error.

Hydrologic Surveillance Section

Functions and Responsibilities

Under the supervision of a Hydrologist section chief, the Hydrologic Surveillance Section performs the following functions:

- Coordinates all collection of basic record (CBR) activities in the district.
- Collects, analyzes, processes, and prepares for publication surface, ground, and quality water data for the northern half of Alabama.
- Provides support for special data collection activities such as those required by the hydrologic studies and reports section.
- Coordinates the preparation of the statewide basic data report.
- Prepares miscellaneous reports as required including requests for information.
- Provides technical and manpower support to the Montgomery Subdistrict.

Field Headquarters - Cullman

Functions and Responsibilities

As an extension of the Hydrologic Surveillance Section, the Cullman field office is under the supervision of a Hydrologic Technician, who is responsible to the Chief of the Hydrologic Surveillance Section. The Cullman field office performs the following functions:

- Constructs, maintains, and operates an interdiscipline water data network in northern Alabama, including analysis, compilation, and preparation of records for publication in the annual water data reports.
- Constructs, maintains, and operates gaging stations and furnishes records for specific projects.
- Prepares miscellaneous reports as required including requests for information.
- Proposes new projects or activities for consideration by the District.
- Maintains local liaison with officials of TVA, other agencies, and the general public.

Hydrologic Studies and Reports Section

Functions and Responsibilities

Under the supervision of a Hydrologist, the Hydrologic Studies and Reports Section performs the following functions.

- Coordinates all project activities (other than CBR) in the District.
- Provides project leadership for projects in the northern half of the State.
- Responsible for the review, final preparation, and publication of all reports other than the basic data report. Assists authors with planning, scheduling, and design of reports.
- Prepares miscellaneous reports as required including requests for information.
- Responsible for the technical design and review of project proposals.
- Provides technical and manpower support to the Montgomery Subdistrict.

Subdistrict Office - Montgomery

Functions and Responsibilities

The Montgomery Subdistrict office has full charge of programs and operations in its geographic area of coverage (generally southern Alabama). Those activities which are elements of statewide programs are coordinated with the District office. Under the supervision of the Subdistrict Chief, the Montgomery Subdistrict office performs the following functions:

- Prepares budgets, constructs, maintains, and operates an interdiscipline water data network in southern Alabama, including analysis, compilation, and preparation of records for publication in the annual water data reports which are coordinated and reviewed in the District office.

- Conducts special activities in support of projects in the southern half of the State which includes construction, maintenance, and operation of specific stream gaging stations and the preparation of interpretive reports.

- Conducts special areal water resources investigations and prepares interdiscipline interpretive reports.

- Prepares miscellaneous reports as required including requests for information.

- Prepares monthly, quarterly, and annual administrative reports.

- Proposes new projects or activities for consideration by the District and prepares project descriptions for funded activities.

- Computes basin parameters for statewide water resources investigations.

- Maintains local liaison with cooperating officials, other agencies, and the general public.

- Provides technical and manpower support to the District office.

SOURCES OF FUNDING

Funding for programs of the Water Resources Division falls into two categories: Federal Program which is based on annual appropriations, cooperative programs in which costs are shared between Federal and State or local agencies.

The Alabama program is conducted largely in cooperation with the following agencies:

Alabama Department of Environmental Management
Alabama Geological Survey
Alabama Highway Department
Alabama Power Company
Alabama Surface Mining Commission
City of Birmingham
City of Huntsville
City of Montgomery
City of Tuscaloosa
Dauphin Island Water, Sewer and Fire Protection Authority
Federal Emergency Management Agency
Jefferson County Commission
Tennessee Valley Authority
U.S. Army Corps of Engineers
U.S. Bureau of Land Management

CURRENT PROJECTS

The project descriptions in this section identify the project name, number, period of the project, project leader, cooperating agencies, purpose of the project, progress, status of any reports, and a map identifying project area and data collection sites of all project activity during 1986. Further information concerning project activities is available from the District Office, 520 19th Avenue, Tuscaloosa, Alabama 35401. Phone (205) 752-8104, FTS 229-2957.

SURFACE WATER STATIONS
Project Number AL 001

PERIOD OF PROJECT:
Continuous Since 1899

PROJECT LEADER:
Harry C. Rollins

COOPERATORS:
Alabama Department of Environmental Management

Alabama Power Company

City of Birmingham

City of Huntsville

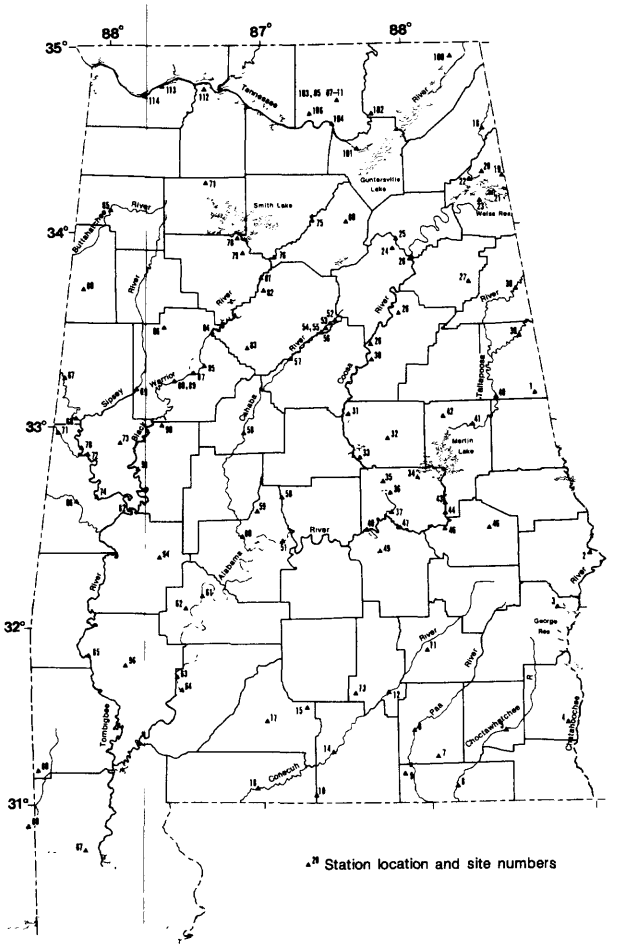
Federal Program

Geological Survey of Alabama

Jefferson County Commission

Tennessee Valley Authority

U.S. Army Corps of Engineers



PURPOSE: A. To collect surface-water data sufficient to satisfy needs for current-purpose uses, such as (1) assessment of water resources, (2) operation of reservoirs or industries, (3) forecasting, (4) disposal of wastes and pollution controls, (5) discharge data to accompany water-quality measurements, (6) compact and legal requirements, and (7) research or special studies. B. To collect data necessary for analytical studies to define for any location the statistical properties of, and trends in, the occurrence of water in streams, lakes, estuaries, etc., for use in planning and design.

PROGRESS: Field data were collected and prepared for publication (1984 water year). Network maintenance continued, including modernizing equipment in places to improve record quality. Modifications to the network, such as additions or deletions of stations, were made in response to data needs.

REPORTS: Data are published annually in U.S. Geological Survey's hydrologic data report "Water Resources Data for Alabama."

GROUND-WATER STATIONS
Project number AL 002

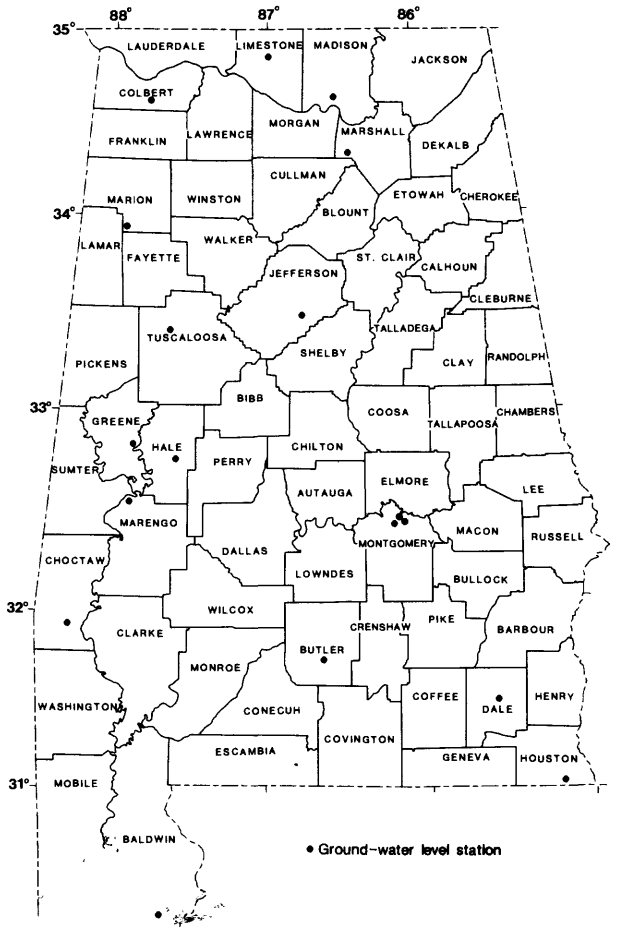
PERIOD OF PROJECT:
Continuous Since 1939

PROJECT LEADER:
Harry C. Rollins

COOPERATOR:
Alabama Highway Department

Federal Program

Geological Survey of Alabama



PURPOSE: To collect water-level data sufficient to provide a minimum long-term data base so the general response to the hydrologic system to natural climatic variations and induced stresses is known and potential problems can be defined early enough to allow proper planning and management.

PROGRESS: Continuous water-level recorders were maintained at 18 stations and semiannual measurements made at approximately 400 wells and springs. Network was reduced because of decrease in cooperative funds. Data from all stations were collected and processed for publication in the District's water-data report.

REPORTS: Data are published annually in U.S. Geological Survey's hydrologic data report "Water Resources Data for Alabama".

WATER-QUALITY STATIONS
Project number AL 003

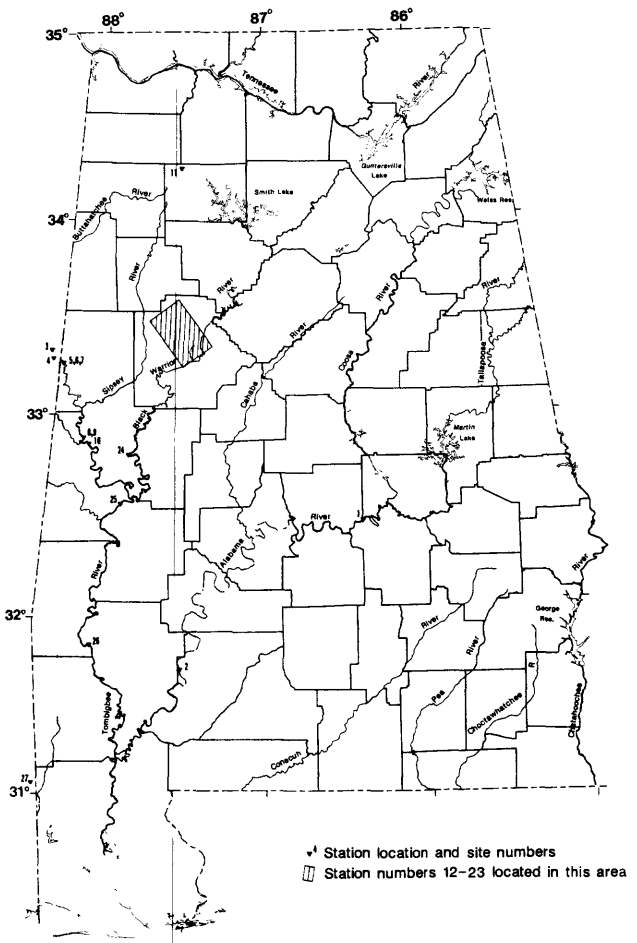
PERIOD OF PROJECT:
Continuous Since 1940

PROJECT LEADER:
Harry C. Rollins

COOPERATORS:
City of Tuscaloosa

Federal Program

U.S. Army Corps of Engineers



PURPOSE: To provide a national bank of water-quality data for broad federal planning and action programs and to provide data for federal management of interstate and international waters.

PROGRESS: Stations operated in the network included two benchmark stations and six NASQAN stations. Data were also collected for Lake Tuscaloosa project on a monthly basis. Modifications to the network, such as additions or deletions of stations, were made in response to data needs and cooperator's commitments.

REPORTS: Data are published annually in U.S. Geological Survey's hydrologic data report "Water Resources Data for Alabama."

SEDIMENT STATIONS
Project number AL 004

PERIOD OF PROJECT:
Continuous Since 1981

PROJECT LEADER:
Harry C. Rollins

COOPERATOR:
U.S. Army Corps of Engineers

PURPOSE: To provide a national bank of sediment data for use in broad Federal and State planning and action programs and to provide data for Federal management of interstate and international waters.

PROGRESS: Three sediment stations are operated to provide spatial and temporal averages and trends of sediment concentrations, sediment discharge, and particle size of sediment being transported by rivers and streams.

REPORTS: Data are published annually in U.S. Geological Survey's hydrologic data report "Water Resources Data for Alabama."

CHEMICAL QUALITY OF ATMOSPHERIC DEPOSITION IN ALABAMA
Project number AL 005

PERIOD OF PROJECT:
Continuous Since 1983

PROJECT LEADER:
Ira A. Giles

COOPERATOR:
Federal

Geological Survey of Alabama

PURPOSE: To collect and analyze precipitation samples and establish the spatial and temporal variability of precipitation chemistry in Alabama.

PROGRESS: Operated two daily and one weekly precipitation chemical-quality stations.

REPORTS: Data are published annually in U.S. Geological Survey's hydrologic data report "Water Resources Data for Alabama."

FLOOD INSURANCE STUDIES FOR FEDERAL EMERGENCY MANAGEMENT AGENCY
Project number AL 006

PERIOD OF PROJECT:
Intermittently Since 1970

PROJECT LEADER:
H. H. Jeffcoat

COOPERATOR:
Federal Emergency Management Agency (FEMA)

Project area - Statewide

PURPOSE: To conduct the necessary hydrologic and hydraulic studies of the areas assigned by FEMA and to develop the most efficient procedures to attain the accuracy specified by FEMA in the most appropriate format.

PROGRESS: Attended town or community meetings for seven Alabama communities determined for study by FEMA. Field work and most of the methodology work have been completed for all seven communities. The report for the town of Ashville has been completed and approved.

REPORTS: U.S. Department of Housing and Urban Development, 1972, Flood insurance study of Benton, Ala.: HUD Type 15 Report, 19 p.

____ 1972, Flood insurance study of unincorporated area around Bay Minette, Baldwin County, Ala.: HUD Type 15 Report, 51 p.

____ 1974, Flood insurance study city of Fairhope, Baldwin County, Ala.: HUD Type 15 Report, 47 p.

____ 1977, Flood insurance study city of Northport, Tuscaloosa County, Ala.: HUD Type 15 Report, 70 p.

____ 1977, Flood insurance study city of Tuscaloosa, Tuscaloosa County, Ala.: HUD Type 15 Report, 85 p.

____ 1978, Flood insurance study city of Enterprise, Coffee County, Ala.: HUD Type 15 Report, 40 p.

____ 1985, Less than detailed flood insurance study town of Ashville, St. Clair County, Ala.: FEMA LDS Report, 11 p.

WATER USE IN ALABAMA
Project number AL 007

PERIOD OF PROJECT:
Continuous Since 1978

PROJECT LEADER:
Will S. Mooty

COOPERATOR:
Geological Survey of Alabama

Project area - Statewide

PURPOSE: To provide water-use information for the optimum utilization and management of the State's water resources to benefit the people of Alabama. To collect, store, and disseminate water-use data which is compatible with a national data base of water use.

PROGRESS: Installed State Water-Use Data System (SWUDS) on PRIME computer. Currently updating the data base for 1980-84 in preparation for the water-use survey for the Alabama portion of the report "Estimated Use of Water in the United States in 1985." The 12 categories of water-use that data will be collected for are:

1. water supplier
2. domestic
3. commercial
4. industrial
5. mining
6. agriculture (livestock)
7. irrigation
8. sewage treatment
9. fossil fuel power generation
10. geothermal power generation
11. nuclear power generation
12. hydroelectric power generation

REPORTS: Geological Survey of Alabama, 1980, Alabama State water-use data system, Geological Survey of Alabama.

Baker, R. M. and others, 1982, Use of water in Alabama, 1980: Geological Survey of Alabama, Information Series 59, 50 p.

Murray, C. F., and Reeves, E. B., 1981, Estimated water use in the United States in 1980. U.S. Geological Survey (Alabama portion).

Baker, R. M. and Moore, J. D., 1983, Use of water in Alabama, 1981: Geological Survey of Alabama, Information Series 59B, 50 p.

WATER USE IN ALABAMA--Continued
Project number AL 007

REPORTS (continued): Baker, R. M., 1983, Use of water in Alabama, 1982: Geological Survey of Alabama, Information Series 59C, 50 p.

REPORTS IN PROGRESS: Estimated use of water in the United States in 1985: U.S. Geological Survey (Alabama portion).

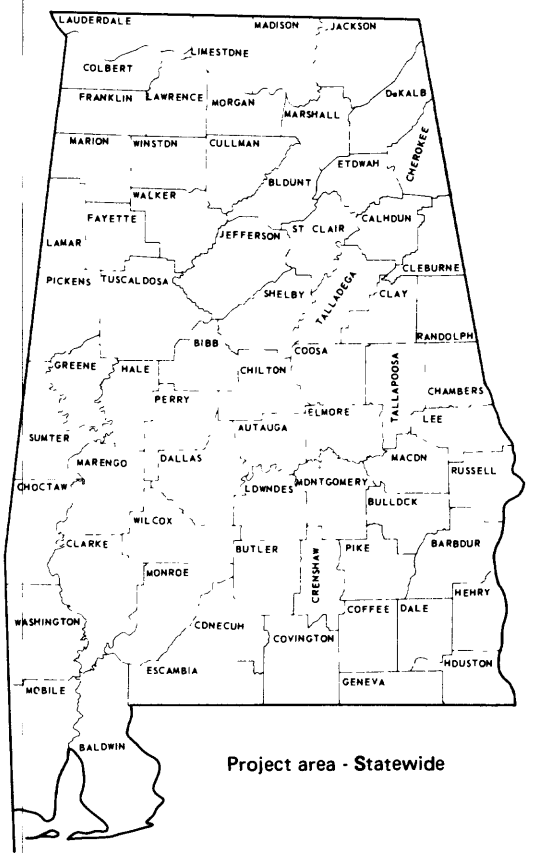
Use of water in Alabama, 1985.

STATEWIDE FLOOD STUDIES, ALABAMA
Project number AL 011

PERIOD OF PROJECT:
Continuous Since 1948

PROJECT LEADER:
Charles O. Ming

COOPERATOR:
Alabama Highway Department



Project area - Statewide

PURPOSE: To collect and analyze supplemental flood data and to prepare reports describing the hydrologic and hydraulic characteristics of selected stream reaches. The planning and economic design of highways, bridges, culverts, and other structures near streams requires knowledge of these hydrologic and hydraulic characteristics.

PROGRESS: A network of crest-stage gages is operated to supplement the statewide gaging station network and improve the areal distribution of flood data. During the past 2 years, 320 bridge sites were investigated and letter reports released to the Alabama Highway Department.

REPORTS: Hains, C. F., 1973, Floods in Alabama, magnitude and frequency based on data through September 30, 1971: State of Alabama Highway Department, Special Report 183 p.

Bohman, L. R. and Ming, C. O., 1980, Hydraulic factors of Big Wills and Black Creeks at proposed Interstate 759 crossing near Gadsden, Alabama.

Hannum, C. H. and Nelson, G. H., 1980, Flood of April 13, 1980, Mobile, Alabama: U.S. Geological Survey Open-File Report 80-1183, 12 p.

FLOW CHARACTERISTICS OF STREAMS
IN THE U.S. CORPS OF ENGINEERS, MOBILE DISTRICT IN ALABAMA
Project number AL 044

PERIOD OF PROJECT:
Continuous Since 1978

PROJECT LEADER:
Charles O. Ming

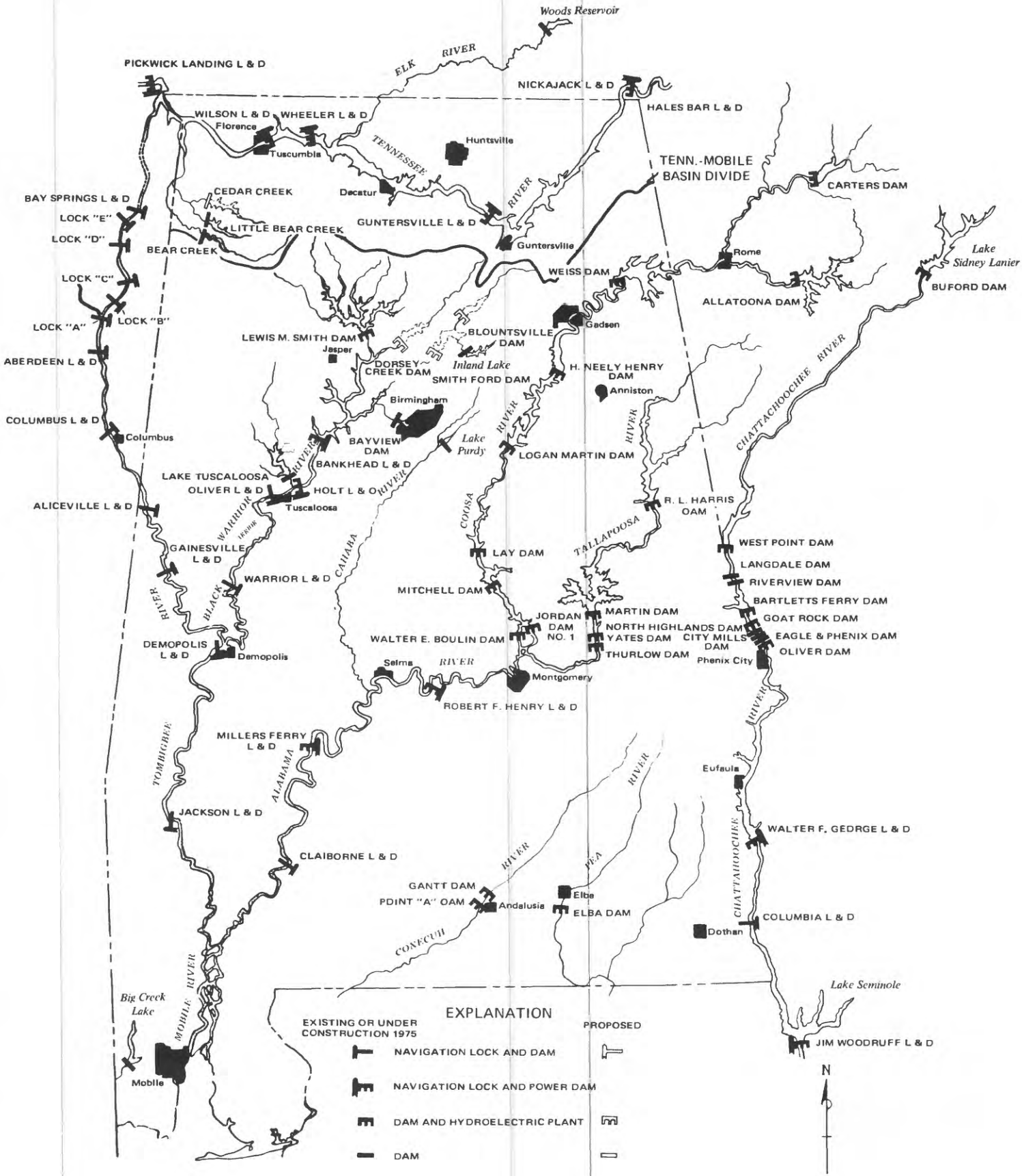
COOPERATOR:
U.S. Army Corps of Engineers

PURPOSE: To evaluate the streamflow characteristics in relation to stream system changes such as construction of dams, navigation locks, clearing, dredging, and channelization.

PROGRES: Flood data, velocity-discharge data, and channel cross section data are being compiled for the reach of the Tombigbee River between Aliceville Lock and Dam and Demopolis Lock and Dam. Computations of the flow coefficients at Gainesville Lock and Dam are being reviewed. Stage-discharge relations at stations 02444500 Tombigbee River near Cochrane, 02449000 Tombigbee River at Gainesville, 02449500 Tombigbee River at Epes, and 02467000 Tombigbee River at Demopolis Lock and Dam near Coatopa are being compiled and reviewed.

REPORTS: Nelson, G. H., Jr., 1980, Hydraulic data for Coosa River in the vicinity of Lay Dam, Alabama: U.S. Geological Survey Open-File Report 79-1636, 60 p.

Nelson, G. H., Jr., 1981, Hydraulic data for Coosa River in vicinity of Walter Bouldin and Jordan Dams, near Wetumpka, Alabama: U.S. Geological Survey Open-File Report 81-1067, 23 p.



Location of Dam and Reservoirs

Nelson, G. H., Jr., and Ming, C. O., 1980, Hydrologic data for Coosa River in the vicinity of Logan-Martin Dam, Alabama: U.S. Geological Survey, Open-File Report, 60 p.

_____1980, Hydrologic data for Coosa River in the vicinity of Mitchell Dam, Alabama: U.S. Geological Survey, Open-File Report, 60 p.

_____ 1980, Hydrologic data for Coosa River in the vicinity of H. Neely Henry Dam, Alabama: U.S. Geological Survey, Open-File Report, 60 p.

Harkins, J. R., and others, 1981, A method of estimating average streamflow and headwater limits in U.S. Army Corps of Engineers Mobile District, Alabama and adjacent States: U.S. Geological Survey Water Resources Investigations/Open File Report 81-59, 2 maps.

Harkins, J. R., and Green, M. E., 1981, Depth estimation for ordinary high water of streams in the Mobile District of the U.S. Army Corps of Engineers, Alabama and adjacent States: U.S. Geological Survey, Open-File Report 81-481, 13 p.

Nelson, G. H., Jr., and Ming, C. O., and Psinakis, W. L., 1985, Investigations of selected streamflow characteristics of the Alabama River upstream from Selma, Alabama: U.S. Geological Survey Water-Resources Investigations Report 85-4055, 44 p.

Nelson, G. H., Jr., and Ming, C. O., 1984, Preliminary stage-discharge relations for Tombigbee River at Aliceville Lock and Dam, near Pickensville, Alabama: U.S. Geological Survey, Open-File Report 83-752, 8 p.

_____ 1984, Preliminary stage-discharge relations for Tombigbee River at Gainesville Dam, near Gainesville, Alabama: U.S. Geological Survey, Open-File Report 83-942, 12 p.

_____ 1984, Preliminary stage-discharge relations for Black Warrior River at Holt Lock and Dam, near Holt, Alabama: U.S. Geological Survey, Open-File Report 84-054, 9 p.

_____ 1984, Preliminary stage-discharge relations for Black Warrior River at Warrior Dam, near Eutaw, Alabama: U.S. Geological Survey, Open-File Report 84-055, 8 p.

_____ 1984, Preliminary stage-discharge relations for Black Warrior River at William Bacon Oliver Lock and Dam, at Tuscaloosa, Alabama: U.S. Geological Survey, Open-File Report 84-056, 6 p.

SOUTHEASTERN COASTAL PLAIN REGIONAL AQUIFER SYSTEM ANALYSIS
Project number AL 046

PERIOD OF PROJECT:
October 1980 to September 1986

PROJECT LEADER:
Michael Planert

COOPERATOR:
Federal

PURPOSE: To describe the regional ground-water flow of the Cretaceous and Tertiary sands of Alabama in sufficient detail so that computer models can be designed to accurately simulate flow in the aquifer system. The models will be used to define regional hydraulic aquifer properties and to evaluate the long-term effects of increased pumpage and other proposed uses of the aquifers and thus provide alternative solutions for ground-water management.

PROGRESS: Three hundred wells have been inventoried and 430 ground-water level measurements were made in October and November 1982.

Aquifer tests were performed at two major pumping centers in southeastern Alabama in 1983.

Calibration of digital ground-water model of aquifer system is being performed.

REPORTS: Davis, M. E., Sparks, A. K., and Peacock, B. S., 1983, Results of a test well in the Nanafalia Formation near Melvin, Choctaw County, Alabama: U.S. Geological Survey, Water-Resources Investigations Report 82-4108, 18 p.

SOUTHEASTERN COASTAL PLAIN REGIONAL AQUIFER SYSTEM ANALYSIS--Continued
Project number AL 046

REPORTS IN PROCESS: Williams, J. W., Planert, Michael, and DeJarnette, S. S., Potentiometric-surface and water-use map of the Tuscaloosa aquifer in Alabama: Water Resources Investigations Report, 1 sheet.

Williams, J. W., Planert, Michael, and DeJarnette, S. S., Potentiometric-surface and water-use map of the Eutaw aquifer in Alabama: Water Resources Investigations Report, 1 sheet.

Williams, J. W., Planert, Michael, and DeJarnette, S. S., Potentiometric-surface and water-use map of the Providence-Ripley aquifer in Alabama: Water Resources Investigations Report, 1 sheet.

Williams, J. W., Planert, Michael, and DeJarnette, S. S., Potentiometric-surface and water-use map of the Nanafalia-Clayton aquifer in Alabama: Water Resources Investigations Report, 1 sheet.

Williams, J. W., Planert, Michael, and DeJarnette, S. S., Potentiometric-surface and water-use map of the Lisbon aquifer in Alabama: Water Resources Investigations Report, 1 sheet.

Williams, J. S., Computer simulation of the Southeastern Coastal Plain aquifer system in Alabama and parts of Mississippi and Georgia: Water Resources Investigations Report.

Planert, Michael, DeJarnette, S. S., and Williams, J. S., Geohydrology of the Southeastern Coastal Plain aquifer in Alabama: U.S. Geological Survey Professional Paper.

GROUND-WATER MANAGEMENT TECHNIQUES FOR DAUPHIN ISLAND, ALABAMA
Project number AL 057

PERIOD OF PROJECT:
October 1984 to September 1986

PROJECT LEADER:
Robert E. Kidd

COOPERATOR:
Dauphin Island Water, Sewer, and
Fire Protection Authority

Dauphin Island

PURPOSE: Develop a methodology for determining the maximum amount of fresh water that can be produced from the water-table aquifer without causing salt-water encroachment. Establish water-management techniques applicable to the production system. Develop practical guidelines for implementation of these techniques.

PROGRESS: Wells on the eastern end of the island were inventoried. Thirty-eight test wells and two supply wells were drilled. Geophysical logs of the wells were made. Ground-water level recorders were established on five wells. Two rain gages and two tide gages are also being used for data collection. Aquifer tests were made on both supply wells. A modular three-dimensional finite-difference ground-water flow model is being used for aquifer simulations.

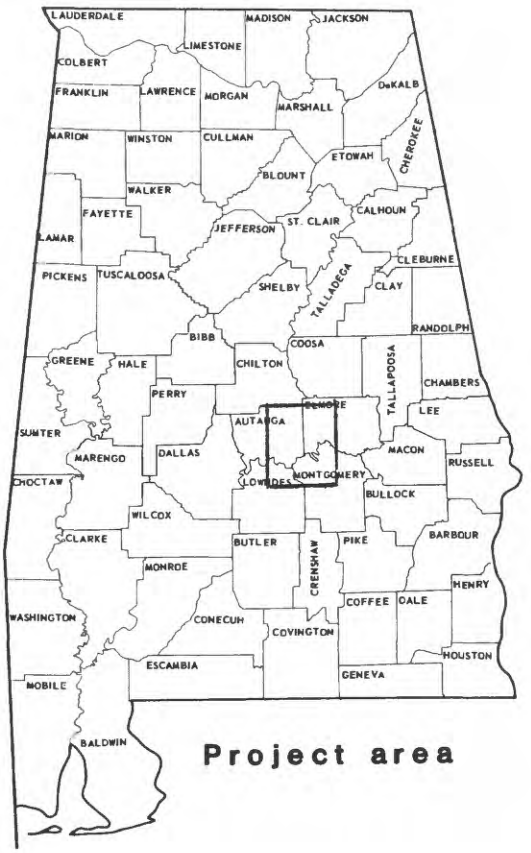
REPORT IN PROGRESS: Hydrologic evaluation of the water table aquifer on Dauphin Island, Alabama.

HYDROLOGY OF THE AQUIFER SYSTEM IN THE MONTGOMERY AREA, ALABAMA
Project number AL 058

PERIOD OF PROJECT:
October 1984 to September 1987

PROJECT LEADER:
John C. Scott

COOPERATOR:
Montgomery Waterworks and Sewer Board



PURPOSE: To evaluate hydrologic changes in the aquifer system since the 1950's, and to estimate the effects of increased stress on the aquifer system for the future.

PROGRESS: An aquifer test was made in the Montgomery West Well Field. Preliminary potentiometric maps were compiled for the Eutaw, Gordo, and Coker aquifers, based on water-level measurements made in October 1984. Described drill cuttings from six test wells in the Montgomery West Well Field.

REPORTS IN PROGRESS: Analysis of the aquifer test in the Montgomery West Well Field.

MODELING SUSPENDED-SEDIMENT DISCHARGE OF STREAMS IN THE WARRIOR COAL FIELD, ALABAMA
Project number AL 059

PERIOD OF RECORD:
Continuous Since 1984

PROJECT LEADER:
C. R. Bossong

COOPERATOR:
Alabama Surface Mining Commission

PURPOSE: The project is designed to tabulate the existing suspended-sediment data base for small watersheds in the Warrior coal field into a computer data base. These data, in selected basins, will be used to calibrate suspended-sediment runoff algorithm for the Precipitation Runoff Modeling System (PRMS). The effectiveness and applicability of the algorithm will be evaluated.

PROGRESS: Suspended-sediment data for small watersheds in the Warrior coal field have been tabulated and stored in a computer data base. Preliminary calibrations for the Boxes Creek basin, a small surface mined watershed, have been developed and are being evaluated.

REPORTS IN PROGRESS: An article discussing the calibration and its effectiveness is in preparation.

EVALUATION OF THE CUMULATIVE HYDROLOGIC IMPACT
OF COAL AND LIGNITE MINING FOR SELECTED BASINS IN ALABAMA
Project number AL 060

PERIOD OF PROJECT:
Continuous Since 1982

PROJECT LEADER:
Robert E. Kidd

COOPERATOR:
Alabama Surface Mining Commission

PURPOSE: To aid the Alabama Surface Mining Commission (ASMC) in its responsibility of evaluating the hydrologic impacts of mining for proper management of coal and lignite production in Alabama.

PROGRESS: Approximately 200 drainage basins 10 to 30 square miles in area were selected on eighty-four 7 1/2 minute USGS topographic maps for cumulative hydrologic impact assessment studies.

Mylar copies of the topographic maps are being made, 38 of which have been completed. The drainage area for each cumulative impact basin and every tributary with a drainage area greater than 5 square miles are given on the map alcng with the basin boundaries. Plotted on the maps are selected USGS data sites and stream mile tick marks. A unique number has been assigned to each topographic map to match the numbering system used by the Alabama District.

In Addition to the map number, the basins are divided according to hydrologic units established by the USGS in the National Water Data Network and further subdivision into sub-watersheds are according to the U.S. Soil Conservation Service (SCS). The hydrologic unit numbers are shown on the maps giving: the region, subregion, accounting unit, cataloging unit, and the SCS sub-watershed number.

A data base storage system on the USGS PRIME computer has been designed and data input by ASMC personnel has started. The storage system is separated by basin code, station number, and ASMC permit number. In addition, the PRIME provides ASMC access to surface and ground water data for all USGS stations in Alabama.

WATER QUALITY IMPACTS RELATIVE TO COAL MINING AGE
Project number AL 061

PERIOD OF PROJECT:
October 1984 to September 1986

PROJECT LEADER:
Larry J. Slack

COOPERATOR:
Federal

PURPOSE: Define surface-water quality in mined areas by groups of age since mining occurred and by the regulations under which mining and reclamation occurred. Determine surface-water quality relations for basins reclaimed under the Surface Mining Control and Reclamation Act of 1977 and compare with equations previously developed for basins in the Warrior coal field.

PROGRESS: Preliminary draft of report has been reviewed by Systems Analysis group at Headquarters.

REPORTS IN PROGRESS: Water quality of surface waters in the Warrior coal field, Alabama.

DELINEATION OF AQUIFERS AND RECHARGE AREAS IN ALABAMA
Project number AL 062

PERIOD OF RECORD:
August 1985 to September 1986

PROJECT LEADER:
John C. Scott

COOPERATOR:
Alabama Department of
Environmental Management

PURPOSE: A series of maps and reports will be prepared that will show locations of major aquifers in Alabama, their areas of recharge, and the public water supplies (wells and springs) that withdraw water from these aquifers. The reports will assist ADEM in formulating a plan to protect major aquifers in Alabama from contamination from the surface.

PROGRESS: The recharge area for Coldwater Spring in Calhoun County has been delineated, and the areas within the recharge area that are susceptible to contamination have been identified. Work has begun on delineating the major aquifers in Colbert, Franklin, Lauderdale, Limestone, Madison, and Morgan Counties.

REPORTS IN PROGRESS: The Coldwater Spring aquifer system at Anniston, Calhoun County, Alabama.

ESTIMATING FLOOD HYDROGRAPHS FOR ALABAMA STREAMS
Project number AL 064

PERIOD OF PROJECT:
October 1985 to March 1988

PROJECT LEADER:
Donald A. Olin

COOPERATOR:
Federal Highway Administration
Alabama Highway Department

Project area - Statewide

PURPOSE: To define methods for (1) estimating magnitude and frequency of flood volumes and (2) estimating the size and shape of the average flood hydrograph to be expected from a given flood peak of a specific recurrence interval (design flood).

REPORTS IN PROGRESS: Estimating flood hydrographs for Alabama streams.

LONG-RANGE MONITORING OF THE UPPER AQUIFER IN THE VICINITY OF FORT RUCKER AVIATION CENTER, ALABAMA
Project number AL 065

PERIOD OF PROJECT:
October 1985 to September 1988

PROJECT LEADER:
John C. Scott

COOPERATOR:
Fort Rucker Aviation Center

PURPOSE: Monitor the potentiometric surface in the upper aquifer and withdrawals from the aquifer in the Fort Rucker area to assist waterworks managers at Fort Rucker in providing an adequate water supply in future years.

PROGRESS: Specifications for an observation well to be constructed at Fort Rucker have been prepared. Water levels in selected wells tapping the upper aquifer in the Fort Rucker area were measured in October and November 1985.

HYDROLOGIC DATA PROGRAM AND DATA COLLECTION SITES

Hydrologic-data stations, at selected key locations throughout Alabama are used by the U.S. Geological Survey to obtain records of stream discharge and stage, reservoir and lake storage, ground-water levels, well and spring discharge, and the quality of surface and ground water. Each year stations are added and others are discontinued. The Water Resources Division maintains both a current and historical file of hydrologic data. All data collected are stored in the Geological Survey's National Water Data Storage and Retrieval System (WATSTORE) and are available on request to water planners and others involved in making decisions affecting the State's water resources. These data can be retrieved in machine-readable form or in the form of computer-printed tables or graphs, statistical analyses, and digital plots. Local assistance for the acquisition of services or products from WATSTORE can be obtained from the District Chief, Water Resources Division in Tuscaloosa. For information on data reports that are published annually as part of this program see the "Selected Literature on Water Resources" section of this report.

Since October 1, 1950, the order of listing surface-water stations is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. Active surface-water stations where continuous records of stage and/or discharge are collected are given in table 1. Figures 2-4 show the location of active data-collection sites. Inactive surface-water stations are given in table 2.

Active surface-water quality stations are given in table 3. Stations listed are sites where systematic water samples are collected and/or sites equipped to record one or more physical or chemical properties. Inactive surface-water quality stations are given in table 4.

Ground-water stations in Alabama from which continuous water level and/or regular water samples are collected are given in table 5. The well numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote the degrees, minutes, and seconds of longitude. The last 2 digits is a sequential number for wells within a 1-second grid. The system provides the geographic location and a unique number for each well.

In addition to the sites in table 5, measurements of water level, yield, and chemical analyses of ground water have been collected at many other locations in the state. Further information is available upon request.

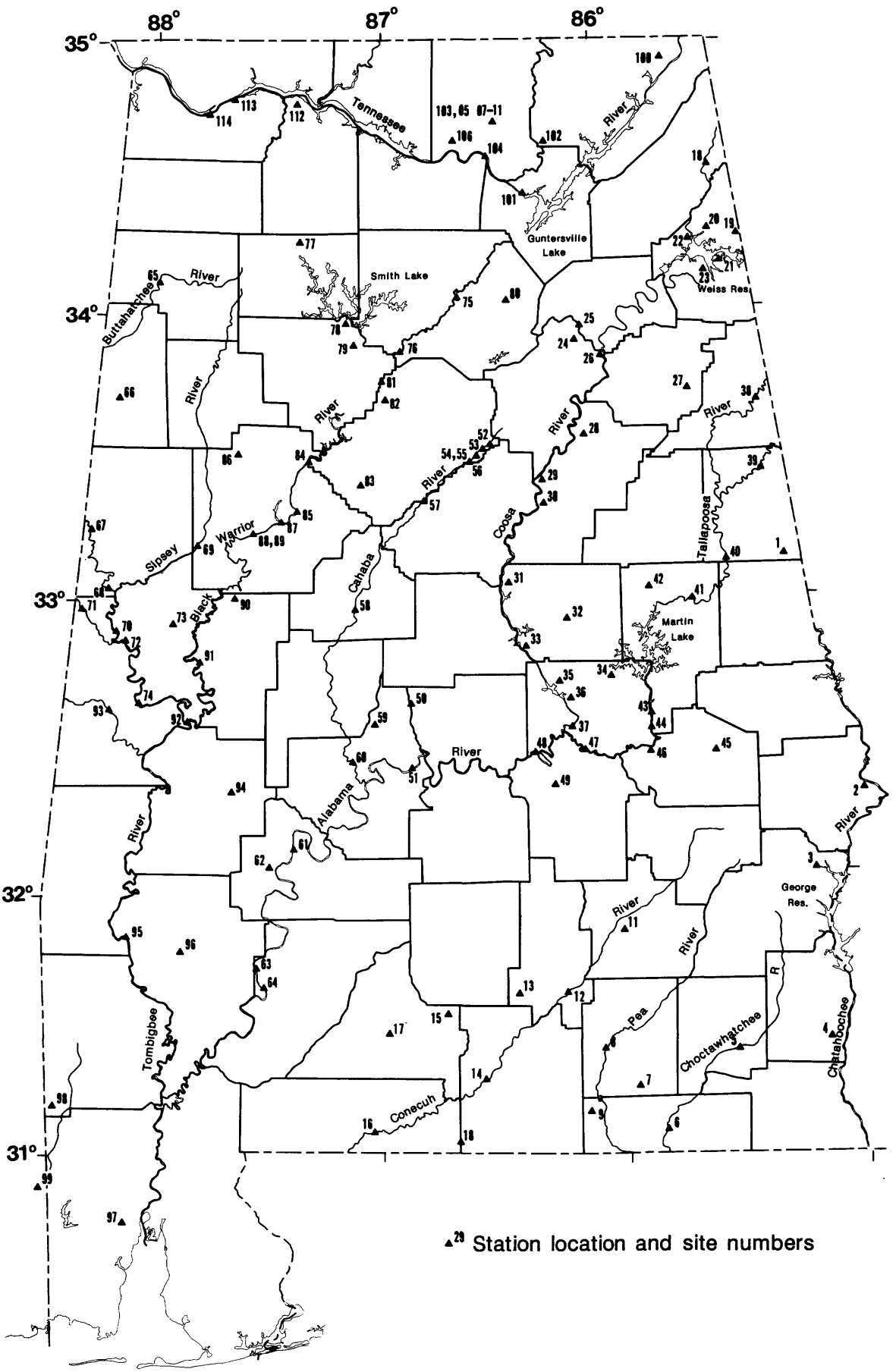


Figure 2. Location of active surface-water stations.

Table 1.--Active Surface-Water Gaging Stations

Site no.	Number	Name	Drainage area mi^2	Period of Record
1	02339225	Wehadkee Creek below Rock Mills	60.2	1978-
2	02342500	Uchee Creek nr Fort Mitchell	322	1946-
3	02342933	South Fork Cowikee Creek nr Batesville	112	1963-71, 1972-74, 1974-
4	02343300	Abbie Creek nr Haleburg	146	1958-71 1974-
5	02361000	Choctawhatchee River nr Newton	686	1906-08, 1911-12, 1921-27, 1935-
6	02362000	Choctawhatchee River nr Geneva	1,346	1928-
7	02362240	Little Double Bridges C nr Enterprise	21.4	1985-
8	02364000	Pea River at Elba	959	1930-
9	02364570	Panther Creek nr Hacoda	26.2	1974-
10	02369800	Blackwater Creek nr Bradley	87.7	1967-
11	02371200	Indian Creek nr Troy	8.87	1958-68 1970-
12	02371500	Conecuh River at Brantley	500	1937-39, 1944-
13	02372250	Patsaliga Creek nr Brantley	442	1974-
14	02372430	Conecuh River at River Falls	1,277	1928-
15	02373000	Sepulga River nr McKenzie	470	1937-67, 1968-70 1974-
16	02374250	Conecuh River at Brewton	2,661	1929-
17	02374500	Murder Creek nr Evergreen	176	1937-
18	02398195	Mills Creek nr Chesterfield	9.53	1978-

Table 1.--Active Surface-Water Gaging Stations (Continued)

Site no.	Number	Name	Drainage area mi^2	Period of Record
19	02398300	Chatooga River above Gaylesville	366	1959-67, 1985-
20	02399200	Little River nr Blue Pond	199	1958-67, 1970-
21	02399499	Weiss Lake nr Leesburg	5,270	1961-
22	02400100	Terrapin Creek at Ellisville	252	1962-67, 1967-72, 1972-
23	02400500	Coosa River at Gadsden Base	5,805	1926-
24	02401390	Big Canoe Creek nr Ashville	141	1965-
25	02401470	Little Canoe Creek nr Steele	22.3	1982-
26	02401620	H. Neely Henry Reservoir	6,596	1966-
27	02403500	Coldwater Spring nr Anniston	Spring	1944-47, 1957-
28	02404400	Choccolocco Creek at Jackson Shoals	481	1960-67, 1974-
29	02405200	Logan Martin Reservoir	7,743	1964-
30	02407000	Coosa River at Childersburg	8,392	1913-
31	02407950	Lay Lake nr Clanton	9,053	1984-
32	02408540	Hatchet Creek below Rockford	263	1979-
33	02409400	Mitchell Lake nr Clanton	9,778	1984-
34	02410000	Paterson Creek nr Central	4.91	1953-
35	02410400	Jordan Lake nr Wetumpka	10,100	1984-
36	02411000	Coosa River at Jordan Dam nr Wetumpka	10,102	1912-14, 1925-
37	02411600	Coosa River at Wetumpka	10,148	1893-
38	02412000	Tallapoosa River nr Heflin	448	1952-
39	02413300	Little Tallapoosa River nr Newell	406	1975-

Table 1.--Active Surface-Water Gaging Stations (Continued)

Site no.	Number	Name	Drainage area mi^2	Period of Record
40	02414500	Tallapoosa River at Wadley	1,675	1923-
41	02414715	Tallapoosa River at Horseshoe Bend	---	1985-
42	02415000	Hillabee Creek nr Hackneyville	190	1952-70, 1973-74, 1985-
43	02417500	Lake Martin nr Tallassee	3,000	1927-
44	02418500	Tallapoosa River below Tallassee	3,328	1928-
45	02419000	Uphapee Creek nr Tuskegee	333	1939-70, 1971-74, 1974-
46	02419500	Tallapoosa River at Milstead	3,771	1897-1977, 1980-
47	02419890	Tallapoosa River nr Montgomery	4,646	1972-
48	02420000	Alabama River nr Montgomery	15,087	1927-
49	02421000	Catoma Creek nr Montgomery	290	1952-71, 1974-
50	02422500	Mulberry Creek at Jones	203	1938-70, 1974-
51	02423000	Alabama River at Selma	17,095	1900-13, 1928-70, 1971-
52	02423380	Cahaba River nr Mountain Brook	140	1984-
53	02423390	Cahaba R at Birmingham Pumping Sta.	145	1985-
54	02423409	Lake Purdy	42.7	1985-
55	02423410	Little Cahaba River bl Lake Purdy	42.7	1985-
56	02423425	Cahaba River nr Cahaba Heights	201	1975-
57	02423500	Cahaba River nr Acton	230	1938-57, 1983-
58	02424000	Cahaba River at Centreville	1,027	1901-08, 1929-32, 1935-

Table 1.--Active Surface-Water Gaging Stations (Continued)

Site no.	Number	Name	Drainage area mi^2	Period of Record
59	02424940	Oakmulgee Creek nr Augustin	220	1975-
60	02425000	Cahaba River nr Marion Junction	1,766	1938-54, 1968-
61	02427506	Alabama River at Millers Ferry Dam	20,637	1968-
62	02427700	Turkey Creek at Kimbrough	97.5	1958-
63	02428400	Alabama River at Claiborne L&D Upper	21,473	1975-
64	02429500	Alabama River at Claiborne	21,967	1930-75,
65	02438000	Buttahatchee River bl Hamilton	277	1950-70 1971-
66	02442500	Luxapallila Creek nr Millport	247	1954-59, 1980-
67	02444160	Tombigbee River at Aliceville L&D	5,750	1980-
68	02444500	Tombigbee River nr Cochrane	5,944	1938-78, 1980-
69	02446500	Sipsey River nr Elrod	528	1928-32, 1939-71, 1978-
70	02447025	Tombigbee River nr Gainesville L&D U	7,230	1980-
71	02448500	Noxubee River nr Geiger	1,097	1939-40, 1944-65, 1965-
72	02449000	Tombigbee River at Gainesville	8,632	1938-55, 1960-78, 1980-
73	02449245	Brush Creek nr Eutaw	43.2	1975-
74	02449500	Tombigbee River at Epes	8,930	1901, 1905-13, 1939-45, 1979-
75	02450000	Mulberry Fork nr Garden City	365	1928-
76	02450180	Mulberry Fork nr Arkadelphia	487	1976-

Table 1.--Active Surface-Water Gaging Stations (Continued)

Site no.	Number	Name	Drainage area mi^2	Period of Record
77	02450250	Sipsey Fork nr Grayson	92.1	1966-
78	02451950	Lewis Smith Reservoir	945	1960-
79	02453500	Mulberry Fork at Cordova	1,916	1900-12, 1972-
80	02455000	Locust Fork nr Cleveland	303	1936-
81	02456330	Crooked Creek nr Morris	16.2	1975-
82	02456500	Locust Fork at Sayre	885	1928-32, 1941-
83	02462000	Valley Creek nr Oak Grove	148	1953-58, 1964-65, 1978-
84	02462500	Black Warrior River at Bankhead L&D	3,979	1928-36, 1976-
85	02462951	Black Warrior River at Holt L&D Aux L	4,219	1976-
86	02464000	North River nr Samantha	223	1938-54, 1968-
87	02464800	Lake Tuscaloosa nr Tuscaloosa	----	1984-
88	02465000	Black Warrior River at Northport	4,820	1928-
89	02465005	Black Warrior River at Oliver L&D	4,821	1971-
90	02465493	Elliots Creek nr Moundville	32.3	1976-
91	02466030	Black Warrior River at Selden Dam	5,810	1976-
92	02467000	Tombigbee River at Demopolis L&D	15,385	1928-
93	02467500	Sucarnoochee River at Livingston	607	1938-
94	02468500	Chickasaw Bogue nr Linden	257	1944-46, 1965-
95	02469761	Tombigbee River at Coffeeville L&D	18,417	1960-
96	02469800	Saltipa Creek nr Coffeeville	164	1956-70, 1971-

Table 1.--Active Surface-Water Gaging Stations (Continued)

Site no.	Number	Name	Drainage area mi^2	Period of Record
97	02471001	Chickasaw Creek nr Kushla	125	1951-
98	02479431	Pond Creek nr Deer Park	20.4	1976-
99	02479560	Escatawpa Creek nr Agricola, MS	562	1973-
100	03572110	Crow Creek at Bass	131	1975-
101	03574000	Guntersville Lake nr Guntersville	24,450	1938-
102	03574500	Paint Rock River nr Woodville	320	1935-
103	03575000	Flint River nr Chase	342	1930-68, 1969-80, 1982-
104	03575500	Tennessee River at Whitesburg	25,610	1924-
105	03575700	Aldridge Creek nr Farley	14.1	1984-
106	03575830	Indian Creek nr Madison	49.0	1959-66, 1975-
107	03575877	Dallas Branch at Huntsville	2.32	1984-
108	03575890	Pinhook Creek at Huntsville	22.5	1984-
109	03575933	Broglan Branch at Huntsville	9.51	1984-
110	03575950	Huntsville Spg Branch at Huntsville	41.8	1984-
111	03575980	McDonnell Creek at Patton Road	10	1984-
112	03586000	Wheeler Lake nr Decatur	29,590	1936-
113	03589000	Wilson Lake nr Florence	30,750	1924-
114	03589500	Tennessee River at Florence	30,810	1871-94, 1894-

Table 2.--Discontinued Surface-Water Gaging Stations

Station number	Name	Drainage area mi^2	Period of Record
02342150	Uchee Creek nr Seale	134	1951-70
02342200	Phelps Creek nr Opelika	6.67	1956-74
02343700	Stevenson Creek nr Headland	14.0	1956-74
02360000	WF Choctawhatchee River at Blue Spring	86.8	1943-70
02360500	EF Choctawhatchee River nr Midland City	291	1952-70
02361093	Trib to Beaver Creek nr Dothan	1.81	1980-83
02362000	Choctawhatchee River nr Geneva	1,346	1904-25
02363000	Pea River nr Ariton	498	1938-70
02363055	Moores Branch nr Victoria	2.17	1973-75
02364000	Pea River at Elba	959	1906-47
02364500	Pea River nr Samson	1,182	1904-13, 1922-25, 1935-71
02367500	Lightwood Knot Creek at Babbie	114	1944-53
02367800	Yellow River nr Wing	461	1958-70
02371000	Conecuh River nr Troy	257	1944-53
02371700	Gantt Reservoir nr Gantt	647	1930-52
02372000	Patsaliga Creek at Luverne	254	1944-58
02372420	Point A Reservoir nr River Falls	1,261	1930-52
02372500	Conecuh River nr Andalusia	1,344	1904-19, 1929-52, 1965-68
02373500	Pigeon Creek nr Thad	307	1937-70
02373800	Sepulga River at Brooklyn	1,017	1975-83
02374000	Conecuh River nr Brooklyn	2,495	1935-57
02374660	Murder Creek at Kirkland	329	1974-79

Table 2.--Discontinued Surface-Water Gaging Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02375000	Big Escambia Creek at Flomaton	330	1939-51
02377500	Styx River nr Loxley	92.2	1951-69
02378500	Fish River nr Silver Hill	55.3	1953-71
02398300	Chattaooga River above Gaylesville	366	1959-67
02398500	Chattaooga River at Gaylesville	379	1937-60
02399000	Little River nr Jamestown	125	1922-32, 1935-49
02399500	Coosa River at Leesburg	5,270	1937-58
02399800	Little Terrapin Creek nr Borden Springs	15.4	1960-69
02400000	Terrapin Creek nr Piedmont	116	1944-54, 1956-63
02401000	Big Wills Creek nr Crudup	182	1943-70
02401370	Big Canoe Creek nr Springville	45.0	1978-85
02401387	Mackleroy Spring nr Whitney	Spring	1968-74
02401460	Gulf Creek nr Ashville	14.2	1976-85
02401500	Big Canoe Creek nr Gadsden	253	1937-66
02401905	Cane Creek nr Alexandria	30.6	1946-60
02402500	Coosa River at Riverside	7,069	1896-1916
02404000	Choccolocco Creek nr Jenifer	277	1903-08, 1929-32, 1935-71
02404400	Choccolocco Creek at Jackson Shoals nr Lincoln	481	1960-67
02404500	Choccolocco Creek nr Lincoln	496	1938-53
02405000	Coosa River nr Cropwell	7,663	1942-58
02405500	Kelly Creek nr Vincent	193	1951-74, 1975-76
02405800	Talladega Creek above Talladega	69.6	1959-68, 1968-71

Table 2.--Discontinued Surface-Water Gaging Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02406000	Talladega Creek nr Talladega	101	1952-62
02406500	Talladega Creek at Alpine	150	1900-04, 1939-51
02407500	Yellowleaf Creek nr Wilsonville	96.5	1950-67
02407900	Paint Creek nr Marble Valley	12.7	1959-65
02408500	Hatchet Creek nr Rockford	233	1944-79
02409000	Weogufka Creek nr Weogufka	73.4	1950-58
02412500	Tallapoosa River nr Ofelia	792	1939-51
02413400	Wedowee Creek above Wedowee	6.87	1959-66, 1967-68
02413500	Little Tallapoosa River nr Wedowee	591	1939-51
02414000	Tallapoosa River nr Cragford	1,455	1922-29
02414800	Harbuck Creek nr Hackneyville	7.97	1958-68
02416000	Tallapoosa River at Sturdivant	2,480	1900-26
02417400	Stearns Creek nr Seman	1.27	1965-74
02418000	Tallapoosa R at Cherokee Bluffs n Tallassee	2,984	1922-28
02419625	Calabee Creek nr Tuskegee	124	1951-60
02420500	Autauga Creek at Prattville	116	1939-59
02421500	Big Swamp Creek nr Hayneville	123	1939-46
02422000	Big Swamp nr Lownesboro	244	1940-71
02423630	Shades Creek nr Greenwood	72.3	1964-81
02423647	Cahaba River nr West Blocton	592	1976-84
02423800	Little Cahaba River nr Brierfield	147	1957-68, 1969-70
02424500	Cahaba River at Sprott	1,378	1938-69
02425200	Big Swamp Creek nr Orrville	37.8	1972-85

Table 2.--Discontinued Surface-Water Gaging Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02425500	Cedar Creek at Minter	211	1952-83
02425655	Mush Creek nr Selma	44.4	1951-71
02426000	Boguechitto Creek nr Browns	95.4	1943-54, 1965-71
02426500	Boguechitto Creek above Orrville	200	1938-44
02427000	Boguechitto Creek nr Orrville	293	1944-49
02427300	Prairie Creek nr Oak Hill	10.3	1959-65
02427500	Alabama River nr Millers Ferry	20,634	1937-54
02427875	Pursley Creek nr Camden	64.3	1951-70
02428000	Alabama River nr Coy	21,140	1928-34
02428300	Tallatchee Creek nr Vredenburg	13.2	1958-64
02428500	Flat Creek at Fountain	247	1943-69
02429000	Limestone Creek nr Monroeville	121	1951-73
02429595	Little River nr Uriah	99.2	1969-77
02437800	Barn Creek nr Hackleburg	13.1	1959-74
02437900	Woods Creek nr Hamilton	14.3	1959-65
02438500	Buttahatchee River nr Hamilton	306	1941-50
02439000	Butahatchee River nr Sulligent	472	1939-60, 1978-85
02442000	Luxapallila Creek nr Fayette	130	1939-70
02444000	Coal Fire Creek nr Pickensville	126	1954-71, 1974-80
02445000	Lubbub Creek nr Carrollton	112	1954-64
02445290	Sipsey River nr Bazemore	138	1981
02445327	Boxes Creek nr Howard	1.52	1983-85
02445500	Sipsey River at Fayette	282	1939-59

Table 2.--Discontinued Surface-Water Gaging Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02446000	Sipsey River at Moores Bridge	413	1939-51
02447000	Sipsey River nr Pleasant Ridge	769	1939-59
02449400	Jones Creek nr Epes	11.8	1959-65
02449775	Mulberry Fork nr Hollypond	110	1980-81
02449870	Blue Spring nr Blountsville	Spring	1968-74
02450200	Dorsey Creek nr Arkadelphia	13.0	1958-67
02450500	Sipsey Fork nr Falls City	360	1943-54
02450825	Clear Creek at NH Church nr Popular Springs	--	1981
02451000	Clear Creek at Falls City	149	1939-54
02451500	Sipsey Fork nr Arley	524	1936-45
02451550	Jaybird Creek nr West Point	1.42	1965-74
02451750	Vest Creek nr Baldwin	1.64	1963-72
02452000	Sipsey Fork nr Jasper	969	1952-80
02452500	Sipsey Fork nr Sipsey	992	1928-37
02453000	Blackwater Creek nr Manchester	181	1939-71, 1979-82
02453400	Flat Branch nr Jasper	2.47	1957-69
02453500	Mulberry Fork nr Cordova	1,916	1900-12
02453835	Trinity Creek nr Carbon Hill	2.68	1978-82
02453950	Lost Creek nr Jasper	115	1951-70
02454000	Lost Creek nr Oakman	134	1951-66, 1979-81
02454200	Wolf Creek nr Oakman	85.0	1959-70
02454420	Cove Spring nr Walnut Grove	Spring	1969-74
02454500	Locust Fork below Snead	147	1952-57

Table 2.--Discontinued Surface-Water Gaging Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02455200	Inland Reservoir nr Oneonta	69.3	1939-69
02455500	Locust Fork at Trafford	624	1930-69
02456000	Turkey Creek at Morris	80.9	1944-79
02457000	Fivemile Creek at Ketona	23.9	1953-58, 1974-79
02460500	Village Creek nr Adamsville	83.5	1953-58, 1964-65, 1973-81
02462482	Trib. Little Yellow C nr Boley Spgs	.82	1983-85
02462600	Blue Creek nr Oakman	5.32	1959-65, 1976-84
02462800	Davis Creek below Abernant	45.3	1956-73
02462840	Davis Creek nr Antioch Church nr Searles	87.3	1980-82
02462990	Yellow Creek nr Northport	8.38	1976-84
02463500	Hurricane Creek nr Holt	108	1952-69
02463510	Hurricane Creek nr Peterson	112	1981
02463900	Bear Creek nr Samantha	15.0	1976-84
02464145	Turkey Creek nr Tuscaloosa	6.1	1981-84
02464500	North River nr Tuscaloosa	372	1951-68
02465200	Lake Creek nr Northport	3.71	1956-70
02465205	Jay Creek nr Coker	3.65	1963-68
02465290	Cribbs Mill Creek nr Tuscaloosa	10.2	1943-60
02465400	Big Sandy Creek at Duncanville	55.9	1943-60
02465500	Fivemile Creek nr Greensboro	73.6	1954-71, 1974
02466000	Black Warrior River nr Eutaw	5,790	1932-57
02466500	Prairie Creek nr Gallion	171	1940-52

Table 2.--Discontinued Surface-Water Gaging Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02468000	Alamuchee Creek nr Cuba	62.3	1954-67
02469000	Kinterbish Creek nr York	90.9	1954-70
02469500	Tuckabum Creek nr Buffer	115	1954-68, 1969-70
02469550	Horse Creek nr Sweetwater	60.4	1959-71
02469600	Bashi Creek nr Campbell	76.6	1959-64
02469700	Okatuppa Creek at Gilbertown	148	1956-70
02470000	Tombigbee River nr Leroy	19,100	1928-60
02470100	East Bassett Creek at Walker Springs	188	1956-70
02471065	Montilimar Creek nr US Hwy 90 at Mobile	8.57	1962-67, 1974-84
02479500	Escatawpa River nr Wilmer	511	1945-74
02480000	Big Creek nr Mobile	105	1944-50
03573000	Short Creek nr Albertville	91.6	1945-53
03573500	Tennessee River at Guntersville	24,340	1940-53
03575000	Flint River nr Chase	342	1930-68, 1969-80
03575700	Aldridge Creek nr Farley	14.1	1961-64
03575910	Pine Haven Ditch at Huntsville	.16	1971-74
03576000	Huntsville Spring Branch nr Huntsville	--	1927-32
03576148	Cotaco Creek at Florette	136	1966-79
03576250	Limestone Creek nr Athens	119	1939-68, 1969-70, 1975-77
03576400	Piney Creek nr Athens	55.8	1959-69
03576500	Flint Creek nr Falkville	86.3	1952-73
03576810	Elam Creek nr Wren	6.69	1963-67

Table 2.--Discontinued Surface-Water Gaging Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
03577000	W Flint Creek nr Oakville	87.6	1952-65
03585300	Sugar Creek nr Good Springs	152	1957-69
03585500	Elk River nr Rogersville	2,239	1927-35
03586500	Big Nance Creek at Courtland	166	1935-40, 1945-81
03587000	Big Nance Creek at Red Bank	188	1935-40
03589250	Pond Creek nr Wilson Dam	13.7	1949-70
03590000	Cypress Creek nr Florence	209	1934-65
03590500	Tuscumbia Spring at Tuscumbia	Spring	1928-30, 1956-66
03591500	Tennessee River at Riverton	31,560	1903-38
03591800	Bear Creek nr Hackleburg	143	1956-72, 1974-79
03592000	Bear Creek at Red Bay	263	1913-20, 1958-68, 1969-81
03592200	Cedar Creek nr Pleasant Site	189	1957-78
03592300	Little Bear Creek nr Halltown	78.2	1957-78
03592500	Bear Creek at Bishop	677	1926-28, 1929-32, 1933-78

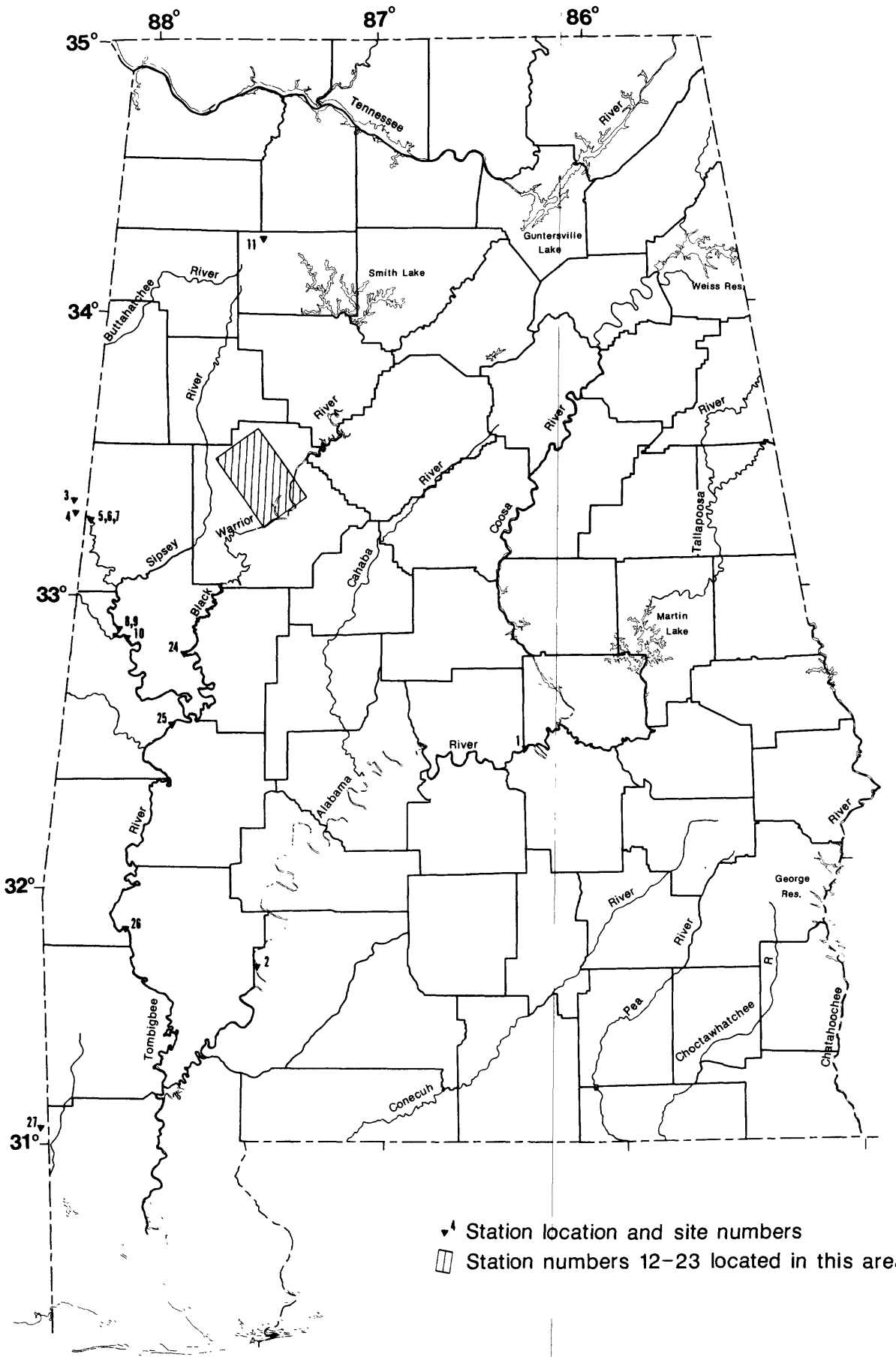


Figure 3. Location of active surface-water quality stations.

Table 3.--Active Surface-Water Quality Stations

Site no.	Station number	Name	Drainage area mi^2	Period of Record
1	02420000	Alabama River near Montgomery	15,087	1969-
2	02429500	Alabama River at Clairborne	21,967	1966-68, 1969-
3	02441498	Tombigbee R in Columbus Bendway	--	1985-
4	02443610	Tombigbee R bl Columbus at Camp Pratt	--	1985-
5	02444158	Tombigbee R ab Aliceville L&D	--	1985-
6	02444161	Tombigbee River bl Aliceville L&D	5,750	1980-
7	02444210	Tombigbee River in Big Creek Bendway	--	1985-
8	02447010	Tombigbee River in Cooks Bendway	--	1985-
9	02447020	Tombigbee River above Gainesville	--	1985-
10	02449000	Tombigbee River at Gainesville	8,632	1975-
11	02450250	Sipsey Fork nr Grayson	92.1	1966-
12	02464000	North River nr Samantha	223	1972-
13	02464035	Cripple Creek east of Samantha	--	1982-
14	02464100	Dry Creek nr Samantha	--	1982-
15	02464149	Turkey Creek nr Patterson Chapel	--	1982-
16	02464155	Lake Tuscaloosa at Hilltop Estates Landing nr Northport	--	1982-
17	02464360	Binion Creek bl Gin Creek nr Samantha	--	1982-
18	02464400	Lake Tuscaloosa at Tierce Patton Road nr Northport	--	1982-
19	02464500	Lake Tuscaloosa at St Hwy 69 nr Tuscaloosa	372	1982-
20	02464505	Tierce Creek nr Northport	--	1982-
21	02464660	Carroll Creek at St Hwy 69 nr Northport	--	1982-

Table 3.--Active Surface-Water Quality Stations (Continued)

Site no.	Station number	Name	Drainage area mi^2	Period of Record
22	02464680	Brush Creek nr Northport	--	1983-
23	02464800	Lake Tuscaloosa Reservoir nr Tuscaloosa	--	1982-
24	02466031	Black Warrior River bl Selden Dam	5,800	1978-
25	02466998	Tombigbee River ab Demopolis	15,385	1985-
26	02469762	Tombigbee River bl Coffeeville L&D	18,417	1974-
27	02479560	Escatawpa River nr Agricola, Miss	562	1974-

Table 4.--Discontinued Surface-Water Quality Stations

Station number	Name	Drainage area mi^2	Period of Record
02342200	Phelps Creek nr Opelika	6.67	1962-68
02343300	Abbie Creek nr Haleburg	146	1983-84
02343700	Stevenson Creek nr Headland	14.0	1962-66
02360000	WF Choctawhatchee River at Blue Springs	86.8	1962-70
02360500	EF Choctawhatchee River nr Midland City	291	1962-70
02361000	Choctawhatchee River nr Newton	686	1964-83
02363000	Pea River nr Ariton	498	1972-83
02364500	Pea River nr Samson	1,182	1965-72
02367800	Yellow River nr Wing	461	1963-70
02369800	Blackwater River nr Bradley	87.7	1976-83
02371000	Conecuh River nr Troy	257	1962-70
02371500	Conecuh River at Brantley	500	1964-83
02372000	Patsaliga Creek at Luverne	254	1962-70
02373000	Sepulga River nr McKenzie	470	1962-70
02373500	Pigeon Creek nr Thad	307	1965-70
02373800	Sepulga River at Brooklyn	1,017	1978-83
02374500	Murder Creek nr Evergreen	176	1970-83
02376500	Perdido River at Barrineau Park, Fla.	394	1972-83
02377500	Styx River nr Loxley	92.2	1965-71
02378500	Fish River nr Silver Hill	55.3	1965-71
02399000	Little River nr Jamestown	125	1963-70
02399200	Little River nr Blue Pond	199	1976-83
02399800	Little Terrapin Creek nr Borden Springs	15.4	1962-69
02400100	Terrapin Creek at Ellisville	252	1983-84

Table 4.--Discontinued Surface-Water Quality Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02401000	Big Wills Creek nr Crudup	182	1972-73, 1975-83
02401390	Big Canoe Creek at Ashville	141	1970-83
02401800	Tallahatchee Creek nr Wellington	92.2	1958-60
02404000	Choccolocco Creek nr Jenifer	277	1949-70
02404400	Choccolocco Creek at Jackson Shoals nr Lincoln	481	1976-83
02405800	Talladega Creek above Talladega	69.6	1965-70
02406500	Talladega Creek at Alpine	150	1963-70
02407000	Coosa River at Childersburg	8,392	1962-83
02407500	Yellowleaf Creek nr Wilsonville	96.5	1965-69
02408540	Hatchet Creek below Rockford	263	1970-84
02409000	Weogufka Creek nr Weogufka	73.4	1963-70
02409502	Coosa River below Mitchell Dam nr Verbena	9,779	1974-76
02411000	Coosa River at Jordan Dam nr Wetumpka	10,102	1972-83
02412000	Tallapoosa River nr Heflin	448	1968-73, 1976-83
02412500	Tallapoosa River nr Ofelia	792	1962-70
02413500	Little Tallapoosa River nr Wedowee	591	1962-70
02414500	Tallapoosa River at Wadley	1,675	1968-73, 1976-83
02414800	Harbuck Creek nr Hackneyville	7.97	1962-70
02415000	Hillabee Creek nr Hackneyville	190	1967-74
02417400	Stearns Creek nr Seman	1.27	1965-66
02418500	Tallapoosa River below Tallassee	3,328	1969-73, 1974-83
02419000	Uphapee Creek nr Tuskegee	333	1970-83

Table 4.--Discontinued Surface-Water Quality Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02419625	Calabee Creek nr Tuskegee	124	1962-70
02420500	Autauga Creek at Prattville	116	1962-70
02421000	Catoma Creek nr Montgomery	290	1972-84
02422000	Big Swamp Creek at Lowndesboro	244	1970-83
02422500	Mulberry Creek at Jones	203	1969-70, 1976-83
02422600	Uriah Creek at Burnsville	1.66	1966-68
02423425	Cahaba River nr Cahaba Heights	201	1982-84
02423630	Shades Creek nr Greenwood	72.3	1969-83
02423647	Cahaba River nr West Blocton	593	1977-83
02423800	Little Cahaba River nr Brierfield	147	1965-70
02424000	Cahaba River at Centreville	1,027	1970-83
02424500	Cahaba River at Sprott	1,373	1967-69
02424940	Oakmulgee Creek nr Augustine	220	1980-84
02425000	Cahaba River nr Marion Junction	1,766	1976-83
02425500	Cedar Creek at Minter	211	1976-83
02425655	Mush Creek nr Selma	44.4	1962-71
02426000	Boguechitto Creek nr Browns	95.4	1965-72
02427300	Prairie Creek nr Oak Hill	10.3	1962-67
02427700	Turkey Creek at Kimbrough	97.5	1972-83
02427875	Pursley Creek nr Camden	64.3	1962-70
02428300	Tallatchee Creek nr Vredenburg	13.2	1962-67
02428500	Big Flat Creek at Fountain	247	1962-70
02429000	Limestone Creek nr Monroeville	121	1963-73
02437800	Barn Creek nr Hackleburg	13.1	1962-68

Table 4.--Discontinued Surface-Water Quality Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02439000	Buttahatchee River nr Sulligent	472	1983-84
02442000	Luxapallila Creek nr Fayette	130	1965-70
02445000	Lubbub Creek nr Carrollton	112	1962-70
02445327	Boxes Creek nr Howard	1.52	1982-84
02446500	Sipsey River nr Elrod	528	1965-71, 1985
02449400	Jones Creek nr Epes	11.8	1961-67
02450000	Mulberry Fork nr Garden City	365	1972-83
02450180	Mulberry Fork nr Arkadelphia	487	1983-84
02450200	Dorsey Creek nr Arkadelphia	13.0	1962-69
02451550	Jaybird Creek nr West Point	1.42	1965-67
02451750	Vest Creek nr Baldwin	1.64	1963-72
02453000	Blackwater Creek nr Manchester	181	1965-72
02453400	Flat Branch nr Jasper	2.47	1957-69
02453950	Lost Creek nr Jasper	115	1963-70
02454000	Lost Creek nr Oakman	134	1962-70
02454200	Wolf Creek nr Oakman	85.0	1965-70
02454500	Locust Fork below Snead	147	1962-70
02455500	Locust Fork at Trafford	624	1965-69
02456500	Locust Fork at Sayre	885	1970-83
02460500	Village Creek nr Adamsville	83.5	1972-73, 1976-83
02460505	Village Creek at Porter	96.6	1972-74
02462000	Valley Creek nr Oak Grove	148	1972-83
02462480	Big Yellow Creek nr Whitson	14.4	1982-84

Table 4.--Discontinued Surface-Water Quality Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02462482	Unnamed trib. to Little Yellow Creek	.82	1982-84
02462487	Little Yellow Creek nr Samantha	3.52	1982-84
02462490	Little Yellow Creek nr Whitson	15.0	1982-84
02462590	Blue Creek nr Wiley	--	1982-84
02462592	Unnamed trib. to Blue Creek nr Wiley	--	1982-84
02462600	Blue Creek nr Oakman	5.32	1961-65, 1982-84
02462800	Davis Creek below Abernant	45.3	1965-71
02462990	Yellow Creek nr Northport	3.73	1982-84
02463585	Cane Creek nr Berry	--	1982-84
02463850	Tyro Creek nr New Lexington	23.9	1982-84
02463900	Bear Creek nr Samantha	15.0	1982-84
02464032	Little Creek east of Samantha	2.68	1982-84
02464146	Turkey Creek bl Hwy 69 nr Tuscaloosa	6.16	1982-84
02465000	Black Warrior River at Tuscaloosa	4,820	1960-83
02465205	Jay Creek nr Coker	3.65	1963-68
02465500	Fivemile Creek nr Greensboro	73.6	1965-74
02467500	Sucarnoochee River at Livingston	607	1972-84
02468500	Chickasaw Bogue nr Linden	257	1972-84
02468000	Alamuchee Creek nr Cuba	62.3	1962-70
02469000	Kinterbish Creek nr York	91.4	1962-70
02469550	Horse Creek nr Sweetwater	60.4	1965-71
02469700	Okatuppa Creek nr Gilbertown	148	1965-70
02469800	Satilpa Creek nr Coffeeville	164	1970-73, 1976-83

Table 4.--Discontinued Surface-Water Quality Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
02471001	Chickasaw Creek nr Kuskla	125	1970-83
03572100	Crow Creek nr Bass	131	1976-83
03572900	Town Creek nr Geraldine	141	1970-72, 1976-83
03573000	Short Creek nr Albertville	91.6	1967-70
03574500	Paint Rock River nr Woodville	320	1976-83
03574570	Bethel Spring nr Woodville	--	1969-73
03574709	Flint River above Stewart Branch nr Fisk	--	1971-75
03574710	Stewart Branch nr Hazel Green	--	1969-73
03574715	Slate Rock Branch nr Hazel Green	--	1969-73
03574744	Walker Creek nr Hazel Green	--	1969-73
03574747	Fowler Creek nr Hazel Green	--	1969-75
03574755	Pilgrum Branch nr Hazel Green	--	1969-73
03574770	Flint River nr New Market	--	1969-73
03574786	Mtn Fork ab Watercress Spg nr New Market	21.8	1969-73
03574787	Watercress Spring nr New Market	--	1970-75
03574788	Mtn Fork bl Watercress Spg nr New Market	22.7	1969-73
03574790	Mtn Fork at Old Mtn Fork Rd nr New Market	--	1969-73
03574795	Hester Creek nr Plevna	26.1	1969-75
03574802	Mountain Fork nr New Market	84.4	1969-75
03574804	Brier Fork Flint River ab Huckleberry Branch nr Hazel Green	6.45	1969-72
03574810	Brier Fork Flint River nr Hazel Green	12.2	1969-75
03574817	Copeland Creek at Elkwood Sect Rd nr Hazel Green	--	1969-72

Table 4.--Discontinued Surface-Water Quality Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
03574818	Steger Spring nr Hazel Green	--	1972-75
03574825	Brier Fork Flint River at US Hwy 231 nr Meridianville	--	1969-73
03574835	Brier Fork Flint River ab Beaver Dam Creek nr Meridianville	--	1970-75
03575000	Flint River nr Chase	342	1964-67, 1970-83
03575015	Boiling Spring nr Maysville	--	1970-72
03575040	Flint River nr Mt Carmel nr Huntsville	362	1975-83
03575062	Betts Spring nr Madison	--	1969-73
03575110	Dug Hill Spring nr Brownsboro	--	1969-73
03575140	Hurricane Creek nr New Market	--	1969-75
03575154	Murphy Spring nr Maysville	--	1969-73
03575175	Beason Spring nr Gurley	--	1970-75
03575252	Esslinger Spring nr Owens Cross Roads	--	1971-73
03575692	Esslinger Spring at Huntsville	--	1970-75
03575760	Kelly Spring nr Harvest	--	1969-74
03575810	Indian Creek at US Hwy 72 nr Huntsville	--	1969-73
03575849	Indian Creek upstream fm Martin Rd nr Madison	--	1969-73
03575868	Fagan Creek at Huntsville	--	1969-73
03575878	Dallas Branch at Huntsville	--	1969-72
03575880	Five Points Creek at Huntsville	.62	1971-73
03575888	Pinhook Creek at Holmes Ave at Huntsville	--	1969-73
03575890	Pinhook Creek at Huntsville	22.5	1971-73
03575895	Huntsville Spring B at Sears Dr at Huntsville	27.1	1971-73

Table 4.--Discontinued Surface-Water Quality Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
03575935	Broglan Branch at Huntsville	--	1969-73
03575948	Merrimac Branch at Huntsville	2.63	1969-75
03575970	Byrd Spring at Huntsville	5.60	1970-72
03575980	McDonnell Creek at Patton Rd nr Huntsville	--	1969-73
03575994	McDonnell Creek at Martin Rd at Huntsville	--	1970-73
03576070	Mill Creek at Madison	--	1969-73
03576080	Bradford Creek nr Madison	14.7	1969-73
03576090	Betts Spring Branch nr Madison	--	1969-73
03576100	Miller Branch nr Triana	49.0	1969-73
03576110	Barren Fork Creek nr Triana	--	1969-73
03576148	Cotaco Creek at Florette	136	1976-83
03576201	Limestone Creek nr Bobo	--	1969-73
03576206	Limestone Creek at Toney	--	1969-73
03576225	Limestone Creek bl Tyrone Creek nr Toney	--	1971-75
03576229	Limestone Creek at Madison-Limestone Co Line	--	1969-73
03576235	Leslie Branch nr Harvest	--	1969-73
03576245	Copperrun Branch at Capshaw	--	1969-73
03576247	Knox Creek at Capshaw	--	1969-75
03576400	Piney Creek nr Athens	55.8	1967-69
03577000	W Flint Creek nr Oakville	87.6	1967-70
03585300	Sugar Creek nr Good Springs	152	1967-70
03586500	Big Nance Creek at Courtland	166	1976-83
03589500	Tennessee River at Florence	30810	1972-83

Table 4.--Discontinued Surface-Water Quality Stations (Continued)

Station number	Name	Drainage area mi^2	Period of Record
03591800	Bear Creek nr Hackleburg	143	1965-67, 1976-83
03592200	Cedar Creek nr Pleasant Site	189	1976-83
343822086411001	Williams Spring nr Huntsville	--	1970-73
343952086345601	Byrd Spring at Huntsville	--	1952-72
344327086352901	Fagan Creek at mouth at Huntsville	--	1971-73
344648086293001	Acuff Spring nr Chase	--	1969-72
345308086404901	Turner Spring nr Toney	--	1971-73

Figure 4. Location of active ground-water stations.

Table 5.--Active Ground-Water Stations

Well No.	Well Location	Aquifer
	Baldwin County	
301651087385601	Bal-2, nr Gulf Shores, Ala.	Miocene
	Butler County	
314355086440501	N-4, But-3, U.S. Geological Survey, 9 miles southwest of Greenville	Nanafalia
	Choctaw County	
315553088233001	Z-2, Cho-1, Ernest Land, 17.7 miles southwest of Butler	Nanafalia
	Colbert County	
344622087375201	H-67, Col-1, U.S. Army Corps of Engineers, 2.7 mi northeast of Muscle Shoals	Fort Payne
	Dale County	
312239085344901	J-12, Dle-1, U.S. Army, 6.5 miles southeast of Ozark	Clayton
	Greene County	
325005087532001	R-11, Gre-3, Eutaw Water Dept., Eutaw	Eutaw
	Hale County	
324205087352801	P-16, Hal-1, Greensboro Water Dept., Greensboro	Eutaw
	Houston County	
310132085024001	V-4, Hou-1, Earl Garner, 24.5 miles southeast of Dothan	Ocala

Table 5.--Active Ground-Water Stations (Continued)

Well No.	Well Location	Aquifer
	Jefferson County	
332605086523001	CC-11, Jef-1, Woodward Iron Co., 2.9 miles southeast of Midfield	Bangor
	Limestone County	
344819086581601	CT-27, Lim-4, Athens Water Dept., Athens	Fort Payne
	Madison County	
344127086350401	CT-43, Mad-2, Huntsville Water Dept., 3.0 miles southeast of Huntsville	Fort Payne
	Marengo County	
323055087504101	B-21, Mag-1, J.C. Webb Compress Co., Demopolis	Eutaw
	Marion County	
335803087551301	T-6, Mar-1, M.M. Burleson, Guin	Pottsville
	Marshall County	
341837086294301	M-15, Mal-4, Arab Water Dept., 0.6 mile south of Arab	Pottsville
	Montgomery County	
322040086252501	K-96, Mtg-4, Montgomery Water Dept., Montgomery	Gordo
322047086214301	K-107, Mtg-3, Montgomery Water Dept., Montgomery	Eutaw
322455086140501	D-38, Mtg.-5, U.S. Airforce, 4.7 miles northeast of Montgomery	Gordo
	Tuscaloosa County	
331045087342501	EE-130, Tus-4, Tuscaloosa Water Dept., Tuscaloosa	Coker

SELECTED BIBLIOGRAPHY OF HYDROLOGIC REPORTS

The number of publications pertaining to water resources in Alabama is large and the publications listed below were selected to show the types of information available to those interested in or in need of water facts. Many of these publications are available for inspection at the U.S. Geological Survey offices and at large public and university libraries.

Publications of the U.S. Geological Survey (USGS)

General Information

The U.S. Geological Survey announces all its publications in a monthly report "New Publications of the Geological Survey." Subscription to this monthly listing are available free upon request to the U.S. Geological Survey, 329 National Center, Reston, VA 22092. All publications are for sale unless specifically stated otherwise. Prices, which are subject to change, are not included here. Prepayment is required and information on price and availability should be obtained from listed sales offices before placing an order. The "U.S. Geological Survey Yearbook" provides a comprehensive description of the Federal Government's largest earth-science agency; copies may be purchased at the address where professional papers are sold (see below). Summaries of research in progress and results of completed investigations are published each fiscal year in the professional paper series "Geological Survey Research" (see under heading Professional Papers). A pamphlet entitled "Geologic and Water-Supply Reports and Maps for Alabama," which includes reports on the geology of the Alabama and other water-resources reports, is available free upon request to the U.S. Geological Survey, 420 National Center, Reston, VA 22092.

Water Resources Information

A monthly summary of the national water situation is presented in the "Water Resources Review." Water-resource investigation folders are available for each of the 50 States and Puerto Rico and the Virgin Islands. The Review and the folders are available free on request to the U.S. Geological Survey, 420 National Center, Reston, VA 22092.

Records of streamflow, ground-water levels, and quality of water were published for many years as Geological Survey water-supply papers.

Streamflow Records

Records of daily flows of streams prior to 1971 were published in the Water-Supply Paper series "Surface-Water Supply of the United States," which was released in numbered parts as determined by natural drainage basins. Until 1961, this was an annual series; monthly and yearly summaries of these data were compiled in two reports: "Compilation of Records of Surface Waters of the United States, October 1950 to September 1960." For the period 1961-70, 5-year compilations were published. Data for Alabama are published in Parts 2 and 3.

Ground-Water Records

Ground-water levels and artesian pressures in observation wells prior to 1975 were reported by geographic areas in a 5-year Water-Supply Paper series. Data for Alabama are in "Ground-Water Levels in the United States, Southeastern States."

Quality-of-Water Records

Data on quality of surface water prior to 1971 were published annually in the water-supply-paper series "Quality of Surface Waters of the United States," which also was released in numbered parts as determined by natural drainage basins. Data for Alabama are in Parts 2 and 3.

Beginning with the 1975 water year, these series were replaced by a new publication series "U.S. Geological Survey Water-Data Reports." This series combines under one cover streamflow data, water-quality data for surface and ground water, and ground-water level data for each State. For Alabama the title is "Water Resources Data for Alabama - Water Year 1984: U.S. Geological Survey Water-Data Report AL84-1.

Flood Information

Methods for estimating the magnitude and frequency of floods for selected streams are given in the Water-Supply Paper series "Magnitude and Frequency of Floods in the United States," which is composed of reports released in parts by drainage basins; data for Alabama in Parts 2 and 3. The U.S. Geological Survey also outlines flood-prone areas on topographic maps as part of a nationwide Federal program for managing flood losses. Urban areas with flood problems were extracted from these topographic maps and published as pamphlets. In Alabama, 350 topographic maps and 34 urban-area pamphlets have been completed and are available from the District Chief, Water Resources Division, Alabama District.

The U.S. Geological Survey's Annual Report provides a comprehensive description of the Federal Government's largest earth-science agency; copies are available for fiscal year 1975 and 1976. Summaries of research in progress and results of completed investigations are published each fiscal year in the professional-paper series "Geological Survey Research." Recent editions are: fiscal year 1974, PP 900; 1975, PP 975, 1976, PP 1000.

Indexes to the "Catalog of Information on Water Data" can be inspected at the office of the District Chief in Tuscaloosa, or the Office of Water Data Coordination, U.S. Geological Survey, 417 National Center, Reston, VA 22092. Current editions are as follows: (1) Station listings for streamflow and stage quality of surface water and quality of ground water, 1974 [21 volumes by water-resources regions - stations in Alabama are listed in volumes 03 (South Atlantic-Gulf) and 06 (Tennessee)]; (2) Index to areal investigations and miscellaneous water-data activities, 1970 [one volume]; and (3) Index to ground-water stations, 1968 [one volume].

USGS Professional Papers

Professional papers are sold by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett Street, Alexandria, VA 22304.

448-A Availability of water in the Mississippi embayment, by E.M. Cushing, E. H. Boswell, P. R. Speer, R. L. Hosman, and others, 1970.

448-B General geology of the Mississippi embayment, by E. M. Cushing, E. H. Boswell, and R. L. Hosman, 1964.

448-C Cretaceous aquifers in the Mississippi embayment, by E. H. Boswell, G. K. Moore, L. M. MacCary, and others, with discussions of Quality of the water, by H. G. Jeffery, 1965.

448-D Tertiary aquifers in the Mississippi embayment, by R. L. Hosman, A. T. Long, T. W. Lambert, and others, with discussions of Quality of the water, by H. G. Jeffery, 1968.

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