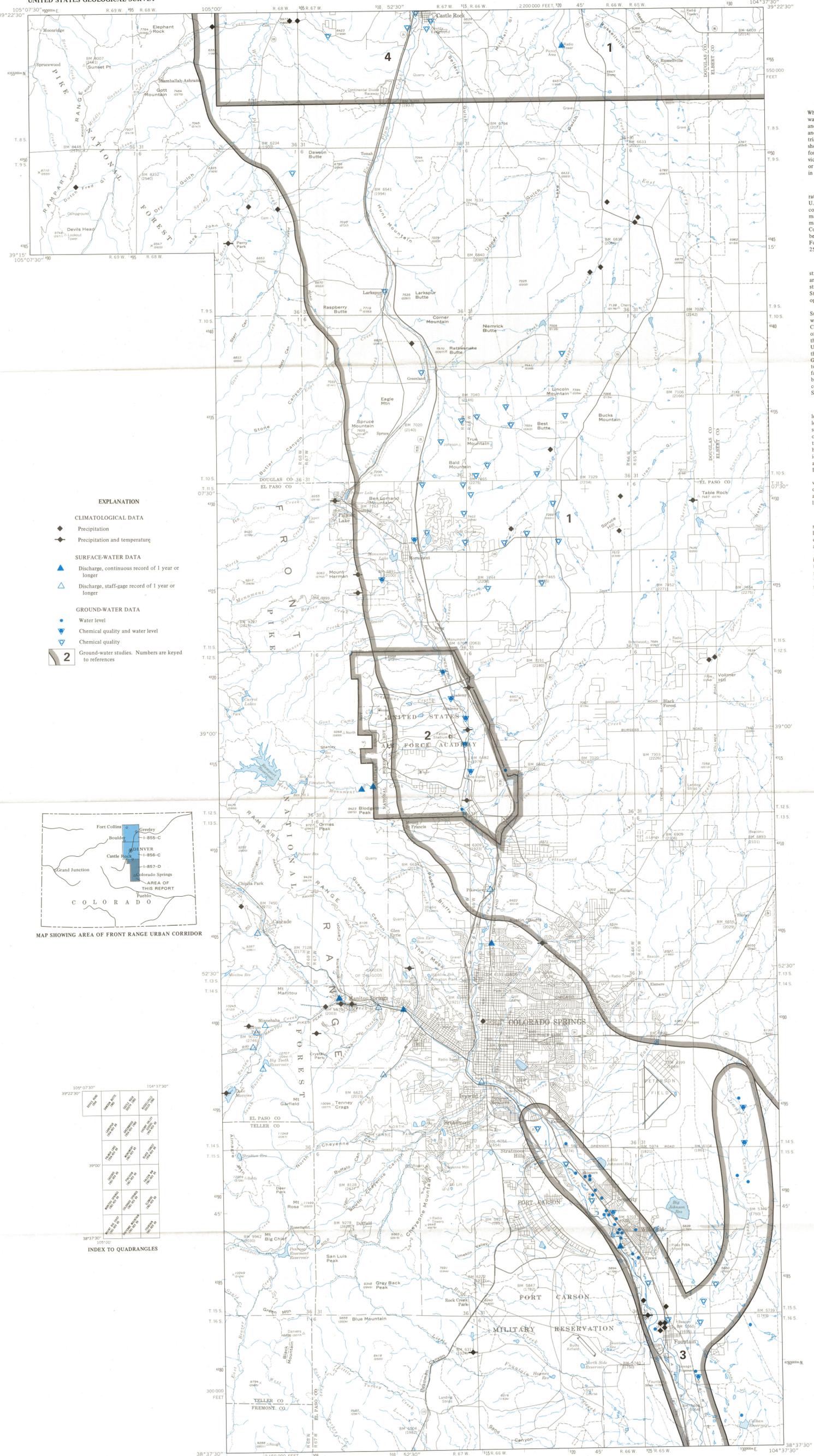


DEPARTMENT OF THE INTERIOR
 UNITED STATES GEOLOGICAL SURVEY



INTRODUCTION
 What is the rainfall of this region? What areas are prone to periodic flooding? What is the water supply? What is the chemical quality of the ground water and water in the streams? How deep is the water table? Which streams are gaged, and where? These and similar questions are often asked by land owners, resource and land developers, governmental resource managers, urban planners, and industrial consultants. This map is a first step toward answering these questions. It shows by symbols and color the hydrologic data published as of January 1974 for the Colorado Springs-Castle Rock area by the U.S. Environmental Data Service and by the U.S. Geological Survey and cooperating agencies, and the points or areas where these data have been collected. All sources of the data are given in the references and are occasionally referred to in the discussion.

CLIMATOLOGICAL DATA
 Climatological data include records of precipitation, temperature, and evaporation. These data have been collected by the National Weather Service (by the U.S. Weather Bureau prior to 1966) and other interested groups, and have been compiled and published by the Environmental Data Service in the reports, "Climatological data, Colorado." Of the 44 climatological stations shown on the map, the longest precipitation records are for Fountain, Colo., beginning in 1866; Colorado Springs' precipitation records begin in 1871. Climatological records can be obtained from the Colorado State Climatologist, Colorado State University, Fort Collins, Colo. 80521, or from the National Weather Service Forecast Office, 2520 Galena Street, Aurora, Colo. 80010.

SURFACE-WATER DATA
 Surface-water data include continuous records of stage and discharge of streams. Location of 16 surface-water data sites are shown on the map; included are 7 continuous-record stream-stage and discharge stations, and 4 staff-gage stream discharge sites. Streamflow records were collected as early as 1908. Stage records for irrigation and public-supply reservoirs are maintained by the operators, owners, and Office of the Colorado State Engineer. The surface-water data have been collected primarily by the U.S. Geological Survey in cooperation with other Federal, State, and local agencies. Surface-water data have also been collected by the U.S. Bureau of Reclamation; the Colorado Department of Natural Resources, Division of Water Resources, Office of the State Engineer; and other State, Federal, and local agencies. Many of these data have been compiled and published by the U.S. Geological Survey. U.S. Geological Survey water-supply papers, in which the surface-water records through 1965 are published, are in most libraries or can be consulted in the U.S. Geological Survey libraries (or in Survey offices) in Colorado. Records for 1966 to the present are published in Water Resources Data for Colorado, Part 1, Surface Water Records (1966, 1967, 1968, 1969, 1970, 1971, 1972), and also can be consulted at Survey offices and libraries. Unpublished surface-water data collected on many streams in the Fikes Peak vicinity by the city of Colorado Springs are available through the Department of Utilities, city of Colorado Springs.

GROUND-WATER DATA
 Ground-water data sites plotted on the map represent 40 wells where water levels have been measured periodically for 4 or more years or monthly for at least 1 year, and 49 wells from which water samples have been analyzed for dissolved-chemical constituents. Data regarding water levels and chemical quality of ground water have been collected by the U.S. Geological Survey in cooperation with other Federal, State, and local agencies. Considerable water-level data have also been collected by Colorado State University. The water-level and chemical-quality data are published in one of the releases listed in the references, or are in the files of the U.S. Geological Survey, Water Resources Division, Colorado District, Building 53, Denver Federal Center, Lakewood, Colorado 80425.

Other kinds of ground-water data, such as records of wells, drill logs, wells, geophysical logs of wells, aquifer (pumping) tests, and laboratory analysis of aquifer materials for porosity, permeability, size, and sorting, are also available for a few wells in the area. These data are also published in the releases listed in the references or are in the files of the U.S. Geological Survey.

GROUND-WATER STUDIES
 Ground-water studies range in scope from reconnaissance and single-purpose studies to detailed quantitative studies of designated areas, such as those outlined and identified by number on the map, keyed to the references. Reports of reconnaissance studies contain general information on the occurrence and availability of ground water. Reports of detailed quantitative studies (Jenkins, 1964) contain values of aquifer characteristics, estimates of quantities of water in storage, and data on the chemical quality of the water within the aquifer system studied in area 3—enough of the necessary data to permit construction of a model of the aquifer system. The single-purpose study by Romero and Hampton (1972) yielded a map report that shows the depth to top of an important sandstone aquifer beneath area 1 on the map (approximately one-half of the map area).

Prior to 1940, climatological records in the United States were collected and published by the U.S. Department of Agriculture, Weather Bureau. In 1940, the Weather Bureau was moved to the U.S. Department of Commerce. In 1964, a bureau called the Environmental Science Service Administration (ESSA) was created in the Department of Commerce. Within this bureau were placed the U.S. Weather Bureau and the newly-created Environmental Data Service (EDS). Beginning in January 1965, climatological data previously collected and published by the U.S. Weather Bureau were published by the EDS of ESSA. In 1970, ESSA's name was changed to National Oceanic and Atmospheric Administration (NOAA). At the same time, the U.S. Weather Bureau's name was changed to the National Weather Service (NWS). As of 1974, both NWS and EDS are units of NOAA, and EDS continues to publish climatological records.

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MAP SHOWING AVAILABILITY OF HYDROLOGIC DATA PUBLISHED AS OF 1974 BY THE U.S. ENVIRONMENTAL DATA SERVICE AND BY THE U.S. GEOLOGICAL SURVEY AND COOPERATING AGENCIES, COLORADO SPRINGS—CASTLE ROCK AREA, FRONT RANGE URBAN CORRIDOR, COLORADO

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