

**PROGRESS REPORT OF
COOPERATIVE GROUND-WATER INVESTIGATIONS FOR CONNECTICUT
FOR THE YEAR ENDED JUNE 30, 1954**

Ground-water investigations were continued under the Water Commission - U. S. Geological Survey Cooperative Program at four project areas in Connecticut during the year ended June 30, 1954. Substantial progress was made in the collection of basic water information in the lower Farmington River basin. Both surface and subsurface geological data and records of wells, springs, test borings and pumpage in the area were assembled for use by prospective well owners. The preparation of a report on the geology and ground-water resources of the agricultural area of north-central Connecticut was continued during the year. The report is scheduled for completion during the 1955 fiscal year. As a continuation of investigations on the ground-water resources of the industrial areas of New Haven and Waterbury, observations of water level and samples of water were taken at index stations in both areas. In New Haven, samples of water were taken bi-monthly from 5 well installations for determination of chloride content resulting from induced infiltration of sea water into ground-water supplies. Ground water was sampled bi-monthly at 5 industrial plants in Waterbury and analysed for sulfate concentration in order to measure the degree of infiltration of acid-contaminated water to the water-bearing formations.

The measurement of water levels in 33 observation wells was continued during the fiscal year ended June 30, 1954. Such observations are made at intervals of one month or less to show the seasonal and long-range fluctuations of ground-water levels throughout the state and in specific project areas. Reports summarizing water-level trends in Connecticut were issued monthly to federal, state, and municipal agencies, and to private individuals. The records collected during the year ended June 30, 1954 indicate a slight decrease in the amount of water in storage underground in Connecticut during the twelve-month period. Ground-water stages were below the seasonal normal at the end of June and were the lowest of record for the season at two observation wells.

Water levels declined sharply during the early part of the fiscal year because of dry weather conditions and were at record low stages by the end of October. A return to more normal weather conditions brought about a slow rise in water levels during the winter and early spring but the overall rise failed to offset the earlier decline. The twelve-month period was ended with a net decrease in ground-water storage.

During the year, ground-water information for various sites in Connecticut was supplied in answer to 72 requests from municipal, industrial, state, and federal agencies, well drillers, and private well owners.