

MEMORANDUM SUMMARIZING A PROPOSED PROGRAM OF  
WATER RESOURCES INVESTIGATIONS IN FLORIDA  
FOR THE TWO-YEAR PERIOD ENDING JUNE 30, 1963

INTRODUCTION

The U. S. Geological Survey, at the request of the Florida Geological Survey and the Department of Water Resources, prepared a memorandum in October 1958 setting forth a proposed program for expansion of water resources investigations in Florida over a five-year period. The Florida Geological Survey has requested that this program be reevaluated and a proposed program resubmitted.

The purpose of this memorandum is to summarize the current program and a proposed program for a two-year period ending June 30, 1963.

CURRENT PROGRAM

As of this date some progress has been made on expanding the water resources investigations. However, because of insufficient funds, the rate of accomplishment of the objectives is far short of that proposed in the memorandum of October 1958.

The following is a resume of the work progress for the previous two-year period:

(1) Basic Data.... Three of the attached maps show the current network of basic data collection stations and proposed stations. The number of stream gaging and observation well stations was increased slightly, largely as a result of stations established as a part of area studies and which have been continued as part of the statewide network. Unless these stations can be adequately financed their period of future operation will be in jeopardy.

(2) Research.... Studies covering various phases of salt-water encroachment were continued and several articles were prepared for publication in technical journals and by the Florida Geological Survey. Some research was done on instrumentation, methods, and operations. Although part of the research was conducted by staff engineers in Washington the results have valuable applications to our investigations in Florida.

(3) Special Studies.... During the two-year period the following special studies have been made or initiated: (a) Characteristics of some Florida lakes, report in preparation; (b) Fathometer surveys of selected lakes and streams are currently in progress; (c) Drought and flood studies, report in preparation; (d) Water-levels and salt-water encroachment in the Jacksonville-Fernandina area, reports prepared and are in review; (e) Problems of waste disposal and ground-water quality, article published in a technical journal.

(4) Area Studies (see attached map)

<u>Area</u>	<u>Status</u>
Brevard County	Investigation completed; interim report published; final report in review.
Hillsborough County	Investigation completed; report in review.
Folk County	Surface-water resources. (Report in press.) Ground-water resources investigation completed; interim report published and final report in preparation.
Alachua, Bradford, Clay, and Union Counties	Field work in progress; interim report in review.
Escambia-Santa Rosa Counties	Field work in progress; interim report in review.
Green Swamp	Field work in progress; interim report in review.
St. Johns, Flagler, Putnam Counties	Report of surface-water resources being prepared. Ground-water resources investigation completed; interim reports published and final report in review.
Orange County	Field work in progress.
Everglades National Park	Field work in progress; interim report in review.
Columbia County	Investigation completed; report in review.
Baker, Duval, and Nassau Counties	Field work in progress.
Seminole County	Investigation completed; interim report published and final report in review.
Pasco County	Field work in progress.
Glades and Hendry Counties	Investigation completed; final report in preparation.
Collier County	Field work in progress.
Pompano Beach area	Field work in progress.

## PROPOSED FUTURE PROGRAM

The following summarizes a proposed program in cooperation with the Florida Geological Survey and the Department of Water Resources for the two-year period ending June 30, 1963:

(1) Basic Data.... Continuation of the existing data-collection stations. In addition it is proposed that the following stations be installed and operated as a part of the statewide network:

### Fiscal year 1961-62

- 8 new gaging stations in primary streamflow network
- 25 new gaging stations in secondary network
- 100 new lake stage gages
- 25 new recording ground-water stations
- 15 new non-recording ground-water stations
- Make reconnaissance of chemical quality of surface waters of Florida
- 50 index wells for chemical quality of ground water

### Fiscal year 1962-63

- 15 new gaging stations in secondary network
- 25 new lake stage stations
- 10 new recording ground-water stations
- 15 new non-recording ground-water stations
- Complete reconnaissance of chemical quality of surface waters
- 50 index wells for chemical quality of ground water

(2) Research.... Continue salt-water encroachment studies and research on instrumentation.

(3) Special Studies.... Continue studies on hydrology of lakes and bathymeter surveys of selected lakes and streams. Interpret hydrologic data for small areas where water resources problems might arise which require a minimum of field and office work.

(4) Area Studies.... Continue those area studies which are shown above, under current program, as not being completed. Additional areal water resources investigations will be initiated in areas which have or will have major water problems in the foreseeable future, the number being dependent upon the availability of funds. Many of the area studies are being financed wholly or in part by cooperative funds from county and city agencies.

COSTS

The following table summarizes the state funds required in order to carry out the proposed program. Federal matching funds are contingent upon availability and approval by the Director of the U. S. Geological Survey.

	<u>SM</u>	<u>GM</u>	<u>QM</u>	<u>Total</u>
Present FGS cooperation (1960-61)	\$40,000	\$ 96,100	\$16,500	\$152,600
Additional funds needed	50,000	40,900	11,500	102,400
Total proposed (1961-62)	90,000	137,000	28,000	255,000
(1962-63)	90,000	137,000	28,000	255,000

U. S. Geological Survey  
September 12, 1960