

Aerial photography shown on this sheet, obtained October 5, 1979, covers parts of the Sweetwater Creek basin and a small area of the Hillsborough River basin in the northwest corner. Flooded areas were delineated using supplemental aerial photography of August 24 and October 6, 1979, and photogrammetric maps with 1-foot contours. The inundated area boundary around gaged lakes was outlined on the 1-foot contour maps at the recorded maximum stage. The inundated area boundaries around ungaged lakes and low-lying depressions were based on observed high-water marks or were estimated from the difference in altitude of the water on the date of photography and the maximum stage recorded on nearby gaged lakes. The State of Florida base map below shows location of the study area and an index map shows location of the area covered by this sheet and the other 11 inundation maps in this report.

Streamflow records have been collected for Sweetwater Creek near Sulphur Springs since 1971. Stream conditions during 1979 are illustrated by a hydrograph of daily mean discharge for Sweetwater Creek in figure 37. Maximum 1979 discharges for Sweetwater Creek exceeded previous maximum daily discharges for May and September. Flood frequency was determined using a skew coefficient weighted with the regional skew as recommended by Water Resources Council Bulletin No. 17A. The resultant recurrence-interval discharges were adjusted by the regional flood-frequency relations for this area (Stajic and others, 1978). The annual maximum instantaneous discharge of 211 ft³/s occurred on May 8. Streamflow of this magnitude is expected to be exceeded on the average of about once every 20 years, according to the flood-frequency curve shown in figure 38.

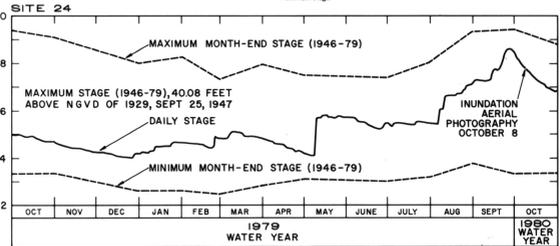


Figure 34.—Stage hydrographs for Lake Carroll near Sulphur Springs.

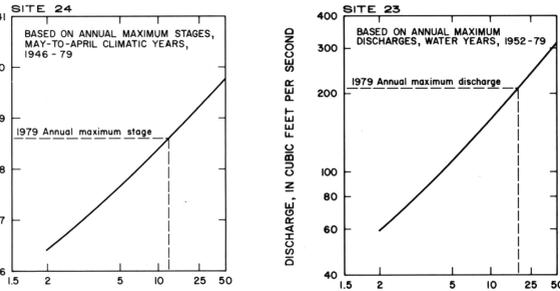


Figure 35.—Flood-frequency curve for Sweetwater Creek near Sulphur Springs.

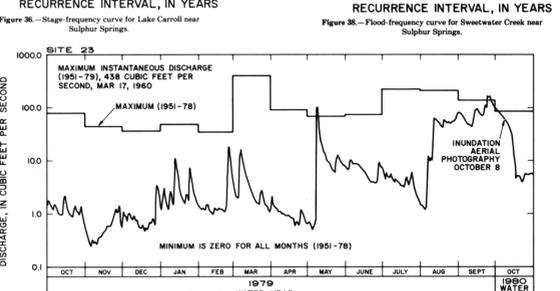
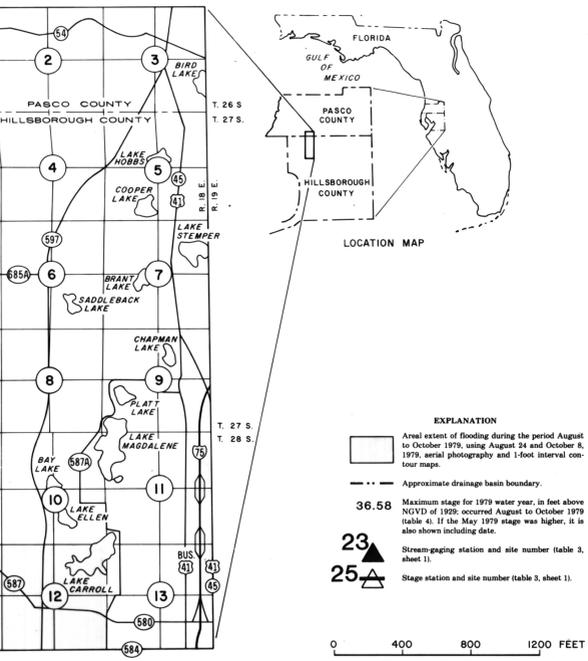


Figure 36.—Discharge hydrograph for Sweetwater Creek near Sulphur Springs.



FLOOD DELINEATION BY SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT USING PHOTOGRAMMETRIC METHODS

AERIAL PHOTOGRAPHY BY KUCERA AND ASSOCIATES, INC. (SHEETS 2-11, OCTOBER 6, 1979) AND ABRAM AERIAL SURVEY (SHEETS 12, 13, OCTOBER 5, 1979)

UNDER CONTRACT WITH SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT



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