

STORM AND FLOOD OF 30-31 OCTOBER 1987

Meteorology -- A formal meteorological investigation for this event was not conducted. The storms were caused by a strong surge of moisture from the remnants of Tropical Storm Selma interacting with an unusual (for October) cold front from the Pacific.

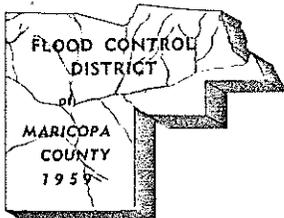
Rainfall -- Rainfall records for this storm are sparse due to an ALERT hardware/software conversion during the month of 10/87. ALERT data was collected by the NWS ALERT computer but was apparently never transferred to the District system.

Runoff -- Measurable runoff occurred on Cave Creek, Skunk Creek, New River, the completed portion of ACDC, lower Agua Fria, west Maricopa Floodway, Powerline Floodway and the East Maricopa Floodway. Impoundments were recorded at Cave Buttes Dam, Adobe Dam, New River Dam, Sunset and Sunnycove Dams, Spookhill Dam, Powerline FRS, Vineyard FRS and Rittenhouse FRS.

Flooded Area -- No areas of flooding were reported for this event. Flooded areas were limited to unbridged crossings of the streams mentioned above and "many small localized" areas.

Summary of Damages -- A formal damage summary was not prepared for this event.

(Information obtained from a memo from D. E. Sagramoso to the Board of Directors dated November 10, 1987).



FLOOD CONTROL DISTRICT
of
Maricopa County

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NOV 10 1987

Memo to: Members of the Board of Directors

Via: Robert G. Mauney, County Manager
R. C. Esterbrooks, Assistant County Manager/Public Works Director
and County Engineer

From: D. E. Sagramoso, Chief Engineer and General Manager

Subject: Flooding Report, Halloween Weekend, 1987

Although severe rains can occur at any time in the Phoenix Metropolitan area, there are several months that are historically reasonably dry. October and November are among the dryer months. For example the normal rainfall for October is 0.63 inches and the normal rainfall for November is .55 inches. However, this Halloween weekend upset the odds as 1.20 inches fell between October 29 and November 6, 1987.

The rains that weekend came off the Pacific Ocean from Tropical Storm Selma. The rains were of the broad frontal storm type, typical of our winter months but unusual so early in the season.

On Thursday evening, October 29, significant rains were observed in the west and northwest portions of the Phoenix Metropolitan area. By Friday, New River was running, the completed portions of the Arizona Canal Diversion Channel were running, and water was beginning to impound behind New River, Adobe, and Cave Buttes Dams. In addition, on Saturday night there were intensive rains throughout the Valley, especially in the eastern portion of the Valley. On Sunday there was significant runoff in New River, lower portions of the Agua Fria due to the flows from New River, and the West Maricopa Floodway (the drainage channel parallel to I-10 from 35th Avenue to the Agua Fria).

On Sunday Flood Control District field crews observed all 22 of the impoundment structures within our flood control system. Modest impoundments were observed behind Sunset and Sunnycove Dams in the City of Wickenburg, as well as on the north side of town at Cave Buttes, Adobe, and New River Dams. The flows in the ACDC were in excess of one foot of depth covering the full bottom width of the Channel in Reach 1.

On the east side of the Valley, there were modest impoundments at Spook Hill, Powerline, Vineyard Road, and Rittenhouse Dams. There were significant flows

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down the Powerline Floodway which drains the impoundments for Powerline, Vineyard Road and Rittenhouse Dams. The East Maricopa Floodway was flowing from Ray Road to the Gila River. There was a six foot depth of water in the East Maricopa Floodway at Williams Field Road and one to two foot depths in the lower portions of this Floodway.

Although there were many small localized problems all over the Valley, there was no flooding that required emergency measures by the Flood Control District. This is the first significant rain that has occurred during 1987. The fact that no major flooding occurred was due to many factors, some of which are outside the District's influence. The effectiveness of the on-going flood control construction program was one of the factors contributing to the lack of major flood damage.

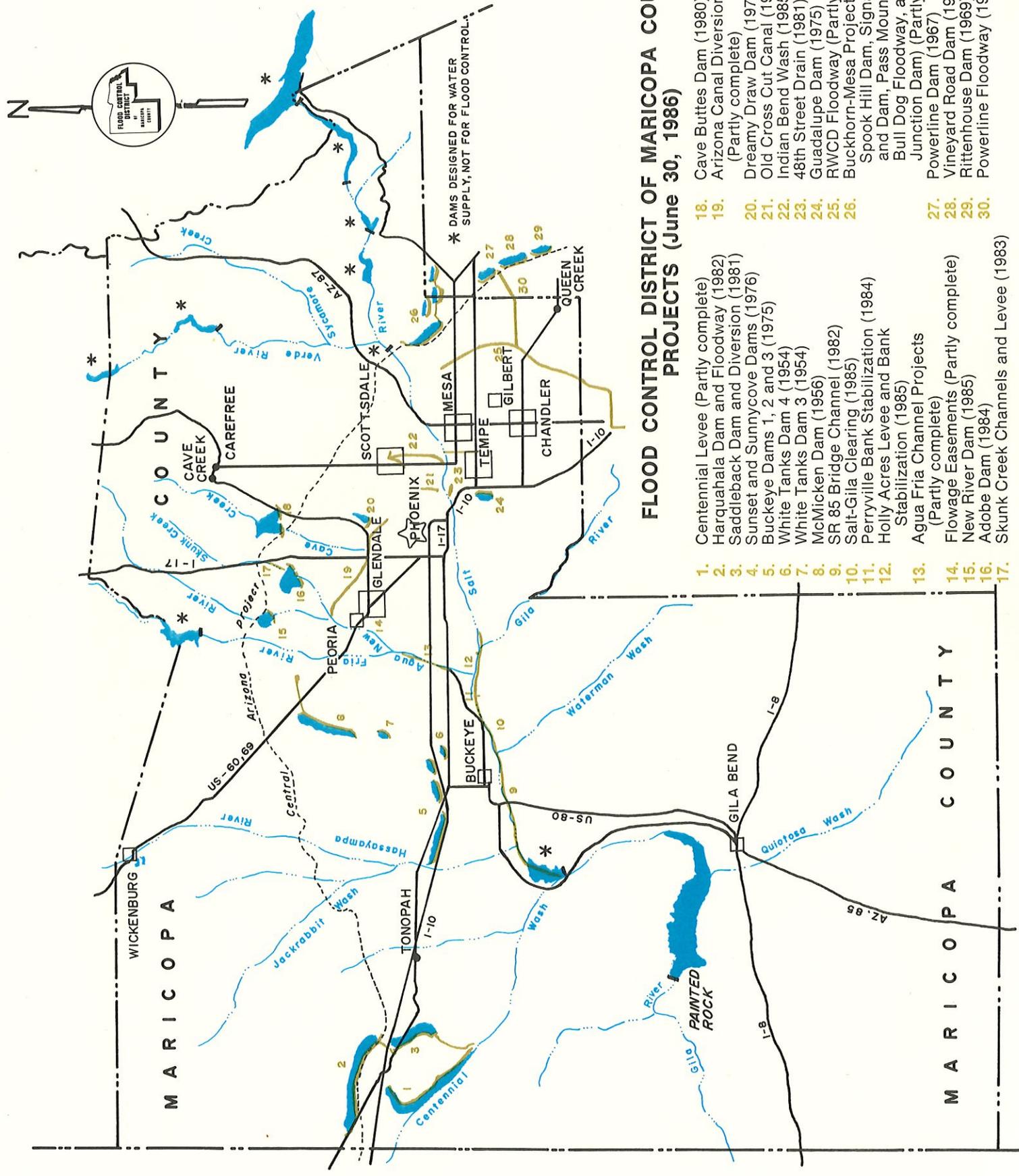
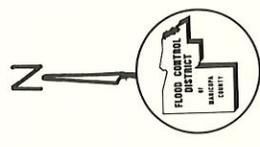
The Flood Control District has an extensive system of telemetered rain and stream gauges scattered around the County and in neighboring counties as well as a large network of volunteer reporters. The information from the telemetered gauges is collected by the computer system at the Flood Control District offices as well as by the National Weather Service computer. The District was especially glad to have the Weather Service back up during this storm because the District computer was not in operation. It had been determined that, because this season is generally dry, it would be a good time to shut down the system for transfer over to the new computer. No data was lost, it is all in the Weather Service computer system and can readily be transferred to our system.

A map showing the location of the structures discussed above is enclosed.



D. E. Sagramoso

Copy to: Flood Control Advisory Board
Civil Defense



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY PROJECTS (June 30, 1986)

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| <ol style="list-style-type: none"> 1. Centennial Levee (Partly complete) 2. Harquahala Dam and Floodway (1982) 3. Saddleback Dam and Diversion (1981) 4. Sunset and Sunnycove Dams (1976) 5. Buckeye Dams 1, 2 and 3 (1975) 6. White Tanks Dam 4 (1954) 7. White Tanks Dam 3 (1954) 8. McMicken Dam (1956) 9. SR 85 Bridge Channel (1982) 10. Salt-Gila Clearing (1985) 11. Perryville Bank Stabilization (1984) 12. Holly Acres Levee and Bank Stabilization (1985) 13. Agua Fria Channel Projects (Partly complete) 14. Flowage Easements (Partly complete) 15. New River Dam (1985) 16. Adobe Dam (1984) 17. Skunk Creek Channels and Levee (1983) | <ol style="list-style-type: none"> 18. Cave Buttes Dam (1980) 19. Arizona Canal Diversion Channel (Partly complete) 20. Dreamy Draw Dam (1973) 21. Old Cross Cut Canal (1975) (Restudy) 22. Indian Bend Wash (1985) 23. 48th Street Drain (1981) 24. Guadalupe Dam (1975) 25. RWCD Floodway (Partly complete) 26. Buckhorn-Mesa Projects (including Spook Hill Dam, Signal Butte Floodway and Dam, Pass Mountain Diversion, Bull Dog Floodway, and Apache Junction Dam) (Partly complete) 27. Powerline Dam (1967) 28. Vineyard Road Dam (1968) 29. Rittenhouse Dam (1969) 30. Powerline Floodway (1968) |
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