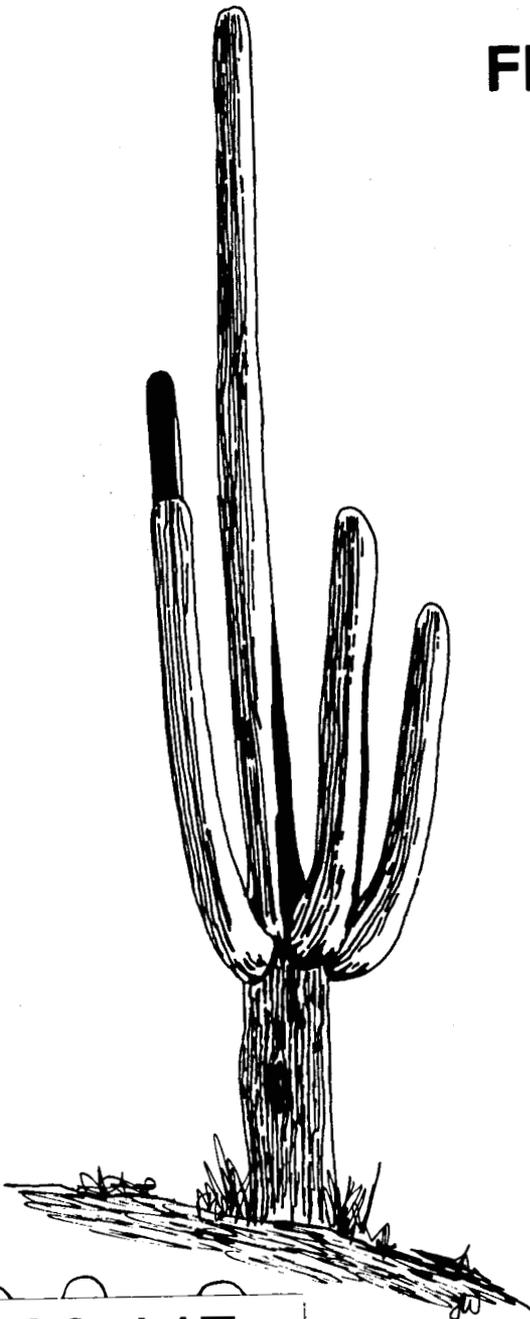


ANNUAL REPORT

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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY



JULY 1, 1980

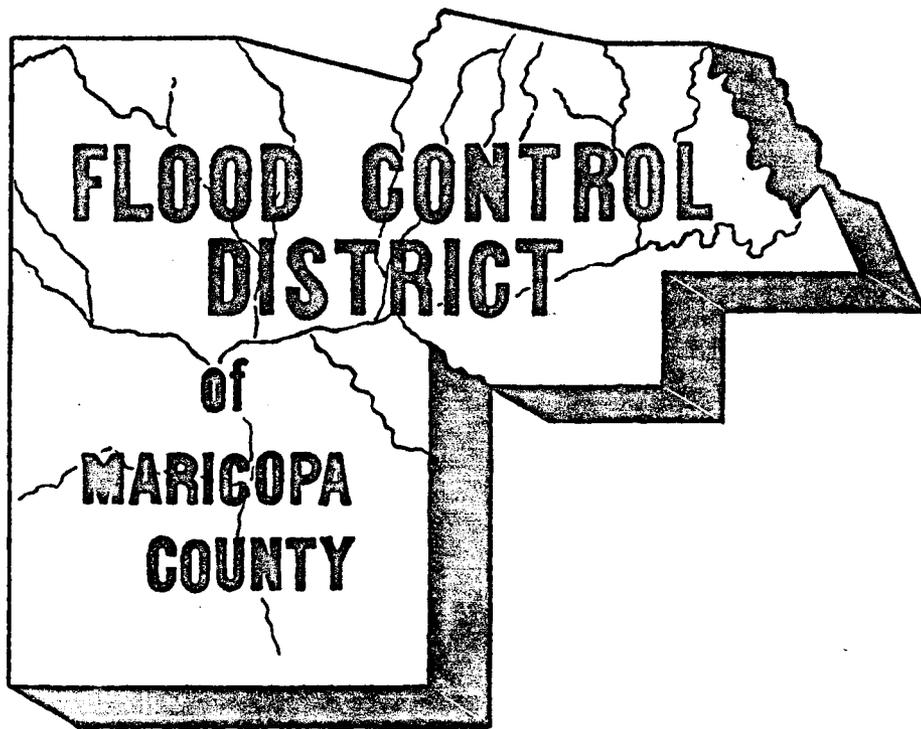
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JUNE 30, 1981

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ANNUAL REPORT



JULY 1, 1980 to JUNE 30, 1981

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BACKGROUND

The District founded in 1959, is a municipal corporation and political subdivision of the State of Arizona. The District is governed by the Board of Directors with the advice of the Citizens' Flood Control Advisory Board. The Directors are also Supervisors of Maricopa County.

The purpose of the District is to provide flood control facilities to prevent the flooding of property and the endangering of lives within Maricopa County.

In fulfilling its purpose, the District

1. Acts as the local sponsor of federal flood control projects designed and constructed by the Army Corps of Engineers and the Soil Conservation Service. The District acquires the necessary rights-of-way and relocates facilities and people affected by the projects.
2. Plans and constructs flood control projects alone or in cooperation with State and local organizations.
3. Maintains and operates completed structures.
4. Assists in providing early warning of potential floods and provides technical leadership during flood emergencies.
5. Provides technical guidance related to floodplain management on a reimbursable basis.

Federal agencies pay the construction costs on federal projects. Land rights and relocations on federal projects are paid from the flood control tax on real property and half of these costs are reimbursed by the State.

Local (nonfederal) projects are funded by a variety of State, Flood Control District, County and City cost sharing arrangements.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
 FINANCIAL HIGHLIGHTS
 FOR THE YEAR ENDED JUNE 30, 1981

	DOLLARS	PERCENT
REVENUES		
Flood Control Tax	\$11,824,832	69%
State Assistance	4,284,274	25%
Interest	540,152	3%
County Reimbursement for Services	20,386	--
Miscellaneous	438,338	3%
Total Revenues	<u>17,107,982</u>	<u>100%</u>
EXPENDITURES		
Administration and Maintenance	1,348,496	9%
Flood Control Capital Improvements	13,514,642	91%
Total Expenditures	<u>14,863,138</u>	<u>100%</u>
Excess (deficiency) of Revenues Over Expenditures	2,244,844	
Fund Balance at Beginning of Year	1,633,879	
Fund Balance at End of Year	<u>\$ 3,878,723</u>	
Expenditures by Task		
Administration and Reimbursable Work	\$ 1,140,375	8%
Land Acquisition	10,355,931	70%
Relocation of Utilities, Bridges and Other Facilities	1,215,673	8%
Construction	484,462	3%
Maintenance	690,300	5%
Cost Sharing in Projects Managed by Others	976,397	6%
Total	<u>\$14,863,138</u>	<u>100%</u>

ACTIVITIES FISCAL YEAR 1980 - 1981

ACCOMPLISHMENTS

Flood Warning System - The flood warning system is still growing with 18 telemetered rain gauges and six telemetered stream gauges now installed. The first piece of hardware for the Flood Warning and Data Base Station was received in July 1980, and now the Station is nearly complete with respect to hardware. Computer links are now available to obtain satellite relayed data and special weather statements from the National Weather Service, U. S. Geologic Survey and other sources.

Indian Bend Wash Interceptor Channel - An important accomplishment this year was the completion of the Indian Bend Wash Interceptor Channel. Bids were opened for the project on October 7, 1980, and a contract for \$2.06 million was awarded to Stimple, Baker and Associates of California on October 15. Construction began in November of that year. The Channel was essentially completed in February 1981, and the final inspection of the project took place on March 20, 1981.

Located parallel and north of the Arizona Canal from Pima Road west to the Indian Bend Wash Inlet Channel (approximately 1.5 miles), the Interceptor serves to relieve ponding along the uphill side of the Arizona Canal and to eliminate breakouts of the canal by intercepting excess water and disposing of it into the Indian Bend Wash.

Paradise Valley, Scottsdale, Phoenix Project (PVSP) - In November 1980, a benefit/cost study for the PVSP Project was completed by the Natelson Company. The goal of the project is the protection, using detention basins and channels, of a large area centering around 64th Street and Cactus Road which is often adversely affected by severe rain storms. The results of the study were quite good, with the lowest benefit-to-cost ratio for a project feature being 5.3 to 1. The report was then sent to Paradise Valley, Phoenix and Scottsdale for review and comment. Early in 1981, the report was also submitted to the Arizona Department of Water Resources, and in March they requested that additional work be done. Natelson Company is presently continuing work on the benefit/cost study.

Buckeye #1 - This is one of a number of dams that developed cracks after construction. This fiscal year a contractor hired by the Soil Conservation Service repaired the dam by excavating a trench down the centerline of the dam two and a half feet wide to a depth of three feet below the bottom of the deepest cracking. That trench was backfilled with a specially designed granular material, and the outlet drains were provided to drain potentially erosive water out of the structure.

Spook Hill Dam - Work was completed on restoration of the Spook Hill Sediment Basin and Dike, which were damaged during the storms of February 1980.

Capital Improvements Program - The Citizens' Flood Control Advisory Board approved the FY 81-82 Capital Improvements Program based on a \$13.5 million income from the flood control tax. It was felt that it would be sound financial management to recommend a five-year program based on bottom line income dollars, rather than a specific tax rate. This \$13.5 million represents a ten percent increase over the current year's expected tax income and is sufficient to maintain the momentum of our current program.

State Trust Lands - Because of the State Supreme Court decision on political subdivisions purchasing State Trust Lands without public auction, we will be condemning all State land in the future rather than negotiating with the State Land Department. The effect of the Supreme decision on past acquisitions is undetermined at this time.

CORPS OF ENGINEERS PROJECTS

Phoenix, Arizona, and Vicinity (including New River) Flood Control Measures - This set of flood control measures designed to protect Phoenix and much of the area around it consists of a number of features, including four dams north of Phoenix-Dreamy Draw Dam and Cave Buttes Dam, which are complete and Adobe Dam, and New River Dam. Also part of this system are the Skunk Creek Channel and Levees system, and the extremely important Arizona Canal Diversion Channel. When all these projects reach completion, they will work together to provide major flood protection for the Valley.

This fiscal year work was in progress on the following projects:

Arizona Canal Diversion Channel (ACDC) - The Flood Control District is working closely with the Corps of Engineers in planning for the construction of the ACDC to help protect parts of Phoenix, Glendale and Peoria. This fiscal year, the acquisition of land for this project, to be located parallel to the Arizona Canal from 40th Street to 75th Avenue, and the use of this land until construction were two of the District's major activities; 193 of the 496 land parcels needed for the ACDC have already been acquired. Also, as required by federal law, the District paid, in addition to the actual purchase price, moving expenses, cost differential and mortgage differential under the relocation assistance program.

Three proposals dealing with the use of acquired land until needed for ACDC construction have been accepted. The first of these makes houses available to the City of Phoenix for its Scattered Site Housing program. Also, the County Senior Village housing program is being organized, and the District plans to deed seven houses to the County for this program by mid-July 1982. These seven houses will not be affected directly by the ACDC; they will only be losing their backyards. Finally, in May 1981, the District started a housing

rental program to make the best use of the acquired property. The District plans to rent the houses on this property to the public. This program is just beginning, and the District has high hopes for its success.

Adobe Dam - Bids were opened on Adobe Dam on September 23, 1980, and on September 29 a contract was awarded to M. M. Sundt of Tucson for \$8,388,025. A ground breaking ceremony was held for the dam on October 30. Presently, the dam is well over 25 percent complete. It is located on Skunk Creek about one mile west of Black Canyon Highway at Deer Valley Road and is the third of the four dams to be constructed north of Phoenix to give protection from a standard project flood, a flood which is normally greater than any past recorded flood.

New River Dam - The Corps of Engineers should complete the preliminary plans for New River Dam and submit them for review sometime in July 1981. The District acquired all necessary private and federal lands for the dam and reservoir this fiscal year and in November 1980 applied for the 470 acres of State Trust Lands needed. Because of the new State Trust Land decision, these lands must be condemned and acquired next year. The Dam will be located on the New River about one mile north of Jomax Road at 83rd Avenue and is the last of the four major dams to be constructed north of Phoenix.

Cave Buttes Dam - Because of the constant problem of vandalism, Cave Buttes Dam is being completely fenced through a private contractor.

Indian Bend Wash Collector and Side Channels - Construction by the Corps of Engineers on this last segment of the Indian Bend Wash System is due to begin in mid-1982. When complete, the Collector and Side Channels, which will parallel the Arizona Canal from the Indian Bend Wash Inlet Channel south to 68th Street, will relieve ponding along the uphill side of the Arizona Canal.

This fiscal year, all utilities that are in conflict with the Collector and Side Channels were identified. Plans for relocation will be submitted to the Corps of Engineers.

SOIL CONSERVATION SERVICE PROJECTS

Harquahala Valley Projects - There are three projects planned in the Harquahala Valley in northwestern Maricopa County. They are:

Saddleback Floodwater Retarding Structure and Diversion Channel - A great deal was accomplished on this project, located on the eastern side of the Harquahala Valley, this fiscal year. On August 14, 1980, bids were opened by the Soil Conservation Service

for the Saddleback FRS and Diversion. The low bidder, to whom the contract was awarded, was M and B Contracting Corporation of Michigan; and Notice to Proceed was given in November. Presently the project is running behind schedule, but the contractor still hopes to meet his February 2, 1981, deadline.

Harquahala Floodwater Retarding Structure and Floodway - The design of the Harquahala FRS was completed in December 1980. It will be constructed on the north side of the Valley. In early 1981, the Project Agreement, the Operation and Maintenance Agreement and the Land Rights Certification for the project were approved; and bids opened on April 22, 1981.

The Harquahala FRS and Floodway, as well as the Central Arizona Project aqueduct, will be built jointly by the Soil Conservation Service and the Water and Power Resources Service. It is expected that the FRS and Floodway portions will cost about \$13,000,000 and will take about two years to build. The Flood Control District has acquired all necessary rights-of-way.

Centennial Levee - This last project in the Valley is located on the west side. In July 1980, the Soil Conservation Service requested rights-of-entry for survey and geological work for the Levee. Also, a public meeting was held at the Harquahala Community Meeting Hall on November 18, 1980, in order to keep residents affected by the project up to date on the progress being made.

Roosevelt Water Conservation District (RWCD) Floodway - The RWCD Floodway, when completed, will extend nearly 27½ miles and will provide a major drain for storm runoff from the cities of Mesa and Chandler and rural areas in southeastern Maricopa County. Excavation for the project began during the summer of 1980, and Reach 1 is now over half finished. The Williams Field Road Bridge near Williams Air Force Base is also under construction, and the Southern Pacific Railroad Bridge over the Floodway has been completed. The Floodway itself is being constructed in six reaches. Reach 1 should be completed in the fall of 1981, and Reach 2 should start in 1982. The District has already begun acquisition of property in Reaches 3 and 4.

Pass Mountain and Signal Butte Floodwater Retarding Structures - Since these structures are planned for the east Mesa-Apache Junction area, a rapidly developing area with many new residents, a public meeting took place on September 9, 1980. The purpose of this meeting was to provide information for the newcomers who did not understand or who were unaware of the flood control structures planned for this area. Also, meetings with residents in the immediate vicinity of Pass Mountain FRS took place in January. The project is to be located entirely within Usury Park, and many residents of the area were concerned that the structure would be unsightly. The meetings helped to create a more positive attitude; residents who wanted to stop the project are now trying to work out how the project can be made acceptable to them.

Signal Butte Floodway - Planning continues on Signal Butte Floodway, which like Pass Mountain FRS and Signal Butte FRS, will be part of the Buckhorn-Mesa structures. The Soil Conservation Service, at the District's suggestion, is considering the use of a large underground concrete pipe for part of this project instead of an open concrete channel in order to reduce land costs. The Soil Conservation Service is also investigating the possibility of reducing the height of the berms in the remainder of the channel to make the design more esthetically pleasing.

LOCAL PROJECTS

Salt-Gila Clearing - Several aspects of this project received attention this year. The Intergovernmental Agreement transferring \$49,000 to the Flood Control District for work in this area was filed with the Secretary of State. In addition, the final Holly Acres Flood Relief Commission report was released Friday, August 22, 1980, at a press conference.

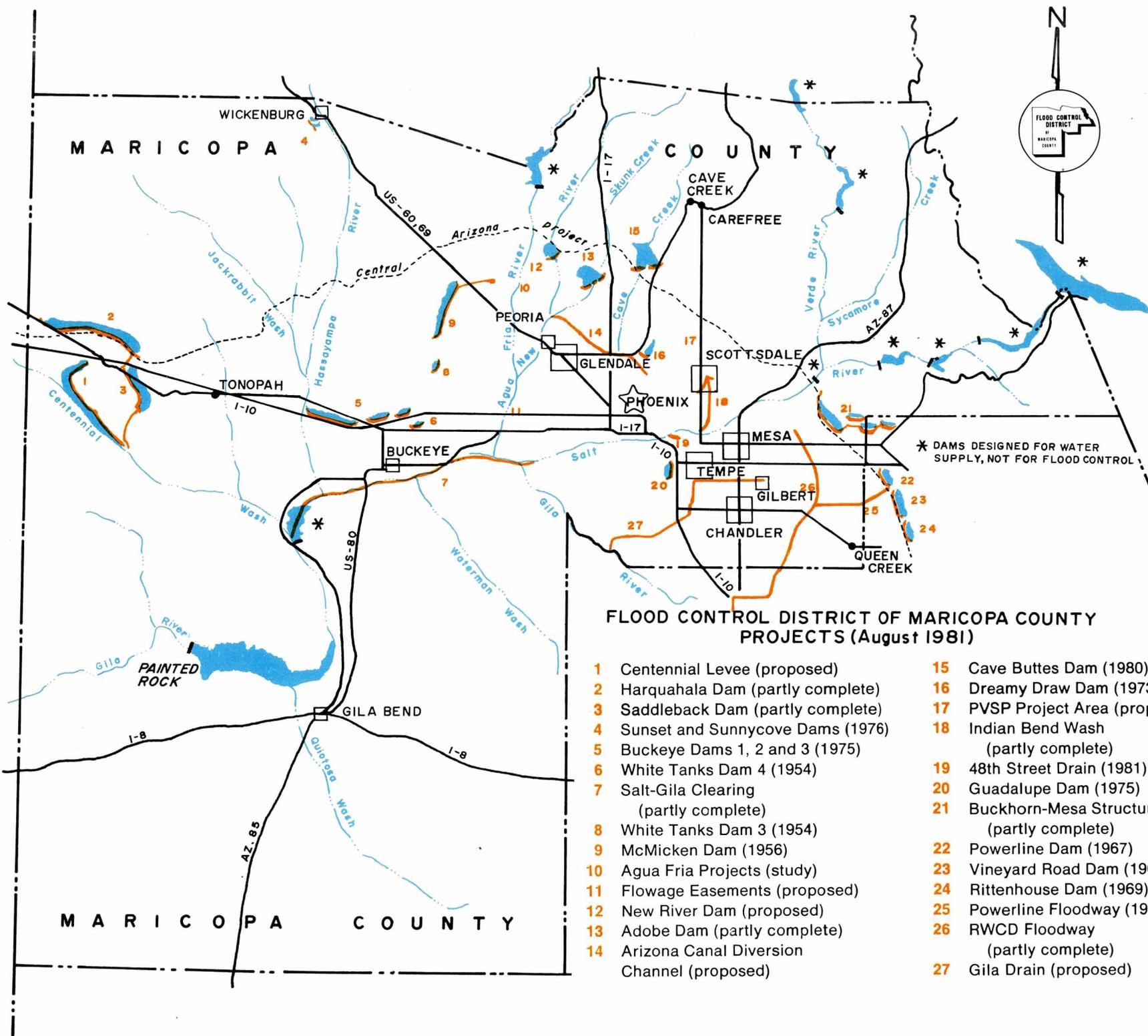
Two segments of the Salt-Gila Clearing were finished this fiscal year, a 1,000 foot wide clearing from 91st Avenue to 123rd Avenue and a 300 foot wide clearing from Gillespie Dam to Powers Butte. Work on the remaining areas of the project cannot proceed until the acceptance of the Environmental Impact Statement. The draft Environmental Impact Statement has been published, and it is anticipated that the final draft will be approved in November 1981.

The Gillespie Dam analysis report was also completed this year. It recommended that the dam be breached to a width of 500 feet and a depth of 20 feet from its bottom. The economic feasibility of this project is doubtful due to the expected cost of approximately \$7 million.

McMicken Dam - McMicken Dam has been of major concern to the Flood Control District for a long time. This dam, which originally protected Luke Air Force Base, Sun City West and valuable agricultural lands, developed serious cracks and was breached by the Corps of Engineers during July 1977. Now flood protection to the downstream area is greatly reduced. In hopes of eventually remedying this, the District has prepared a scope of work for the repair and restoration of this Dam and will be asking for proposals from consultants.

48th Street Drain - The 48th Street Drain, which parallels University Road from 48th Street to about 34th Street, is functionally complete. Resolution of a problem concerning 1,800 feet of poor quality channel lining remains to be resolved. The Drain will serve to collect local runoff from the Tempe area and convey it into the Salt River.

Agua Fria River Study - A study of the Agua Fria River area from five miles south of Waddell Dam to the Gila River was undertaken this fiscal year. A contract was negotiated with Willdan Associates in November 1980. The study will give the District an inventory of improvements in the floodplain and an analysis of flooding potential and recommendations for protective measures.



FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
YEAR ENDED JUNE 30, 1981

	BUDGET	ACTUAL	VARIANCE FAVORABLE (UNFAVORABLE)
REVENUES			
Flood Control District Tax Levy	\$12,292,400	\$11,824,832	\$ (467,568)
State Assistance			
Local Projects	1,705,000	248,261	(1,456,739)
Federal Projects	7,462,000	4,036,013	(3,425,987)
County Reimbursement for Services	396,728	20,386	(376,342)
Local Participation	98,000	---	(98,000)
Interest Earnings	---	540,152	540,152
Miscellaneous			
Building Rent	10,000	42,223	32,223
Federal Share	149,225	296,207	146,982
Other	806,610	99,908	(706,702)
Total Revenues	<u>22,919,963</u>	<u>17,107,982</u>	<u>(5,811,981)</u>
EXPENDITURES			
Personnel Services			
Salaries and Wages	1,181,605	1,036,761	144,844
Overtime	30,000	28,668	1,332
Employee Benefits	215,120	184,100	31,020
Total	<u>1,426,725</u>	<u>1,249,529</u>	<u>177,196</u>
Supplies and Services			
Professional Services Contracts	2,164,350	583,434	1,580,916
Maintenance Contracts	317,000	188,295	128,705
Maintenance Supplies	213,435	72,496	140,939
Insurance	129,400	29,283	100,117
Other Supplies and Services	1,380,660	1,228,650	152,010
Total	<u>4,204,845</u>	<u>2,102,158</u>	<u>2,102,687</u>
Capital Outlay			
Real Estate	15,923,480	11,047,461	4,876,019
Communications Equipment	6,780	6,576	204
Engineering and Scientific Equipment	206,895	144,009	62,886
Motor Vehicles and Equipment	113,300	97,078	16,222
Construction and Other Capital Outlay	3,011,335	216,327	2,795,008
Total	<u>19,261,790</u>	<u>11,511,451</u>	<u>7,750,339</u>
Total Expenditures	<u>24,893,360</u>	<u>14,863,138</u>	<u>10,030,222</u>
Excess (deficiency) of Revenues Over Expenditures	(1,973,397)	2,244,844	4,218,241
Fund Balance at Beginning of Year	<u>1,633,879</u>	<u>1,633,879</u>	<u>---</u>
Fund Balance at End of Year	<u>\$ (339,518)</u>	<u>\$ 3,878,723</u>	<u>\$ 4,218,241</u>

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY
EXPENDITURES BY ACTIVITY
FOR THE YEAR ENDED JUNE 30, 1981

ACTIVITY	EXPENDITURES OTHER THAN MAINTENANCE	MAINTENANCE EXPENDITURES
Administration	\$ 534,712	
Maintenance Overhead		\$ 258,775
Cooperative Agreement with U.S. Geological Survey	55,740	
Technical Support of Maricopa County Planning	52,374	
Technical Support of Maricopa County		
Building Safety	4,101	
Highway Department	2,150	
Floodplain Delineation	219	
Flood Insurance	4,786	
Hydrologic Data Collection	4,114	9,614
Flood Warning System	197,896	6,592
Flood Emergency Activities	2,110	
Technical Support of Maricopa County		
Floodplain Administration	1,587	
Technical Support - City of Glendale	16	
Project Cost Sharing - City of Mesa	340,000	
Technical Support - City of Peoria	215	
Project Cost Sharing - City of Phoenix	460,000	
Project Cost Sharing - City of Tempe	126,397	
Project Cost Sharing - Town of Paradise Valley	50,727	
Technical Support - Town of Wickenburg	822	
Technical Support - Town of Youngtown	62	
Dysart Road - Agua Fria Drain		14,793
48th Street Drain	14,219	535
Alma School Drain	701	4,975
Old Cross Cut Canal	1,101	11,424
Salt River, Scottsdale Road to Mill Avenue	90	
Salt/Gila Clearing and Channelization	453,028	3,531
Sossaman Road	9,796	
Agua Fria River	61,775	
Indian Bend Wash Outlet	43,504	32,867
Indian Bend Wash Inlet	374,222	993
Indian Bend Wash Greenbelt	621,211	11
Indian Bend Wash Interceptor and Side Channels	314,056	3,169
Gila Drain	6,724	2,044
Champion Drain	22	111
Arizona Canal Diversion Channel	8,657,197	56,218

ACTIVITY	EXPENDITURES OTHER THAN MAINTENANCE	MAINTENANCE EXPENDITURES
Paradise Valley, Scottsdale, Phoenix Study	\$ 34,220	\$
RWCD - Williams Chandler	289,189	889
RWCD - Apache Junction/Gilbert	96,545	
RWCD - Buckhorn Mesa	72,623	34
White Tanks Dam #3	2,967	24,502
White Tanks Dam #4	2,334	12,145
McMicken Dam	5,059	11,286
Dreamy Draw Dam	11	5,608
Guadalupe Dam	136	3,302
Lower Queen Creek		29
Buckeye Dam #1	1,845	7,313
Buckeye Dam #2		9,084
Buckeye Dam #3	68	4,093
Spook Hill Dam and Outlet	40,569	103,893
Signal Butte Floodway	439,837	322
Pass Mountain Dam and Outlet	4,634	66
Apache Junction Dam/Bulldog Floodway	1,877	
Powerline Dam	135	16,382
Powerline Floodway	77	25,748
Vineyard Road Dam	72	12,845
Rittenhouse Dam	1,060	9,609
Harquahala Dam and Floodway	54,293	182
Saddleback Dam	32,779	289
Saddleback Diversion	116,301	354
Centennial Levee	2,176	113
Sunset Dam	548	726
Sunnycove Dam		473
Sunset/Sunnycove Pipeline		126
Cave Buttes Dam	61,845	26,466
Adobe Dam	505,900	8,769
New River Dam	1,929	
Flowage Easements, Skunk Creek, New River, Agua Fria	8,135	
Total	<u>\$14,172,838</u>	<u>\$690,300</u>

Boards and Principal Officers

Board of Directors

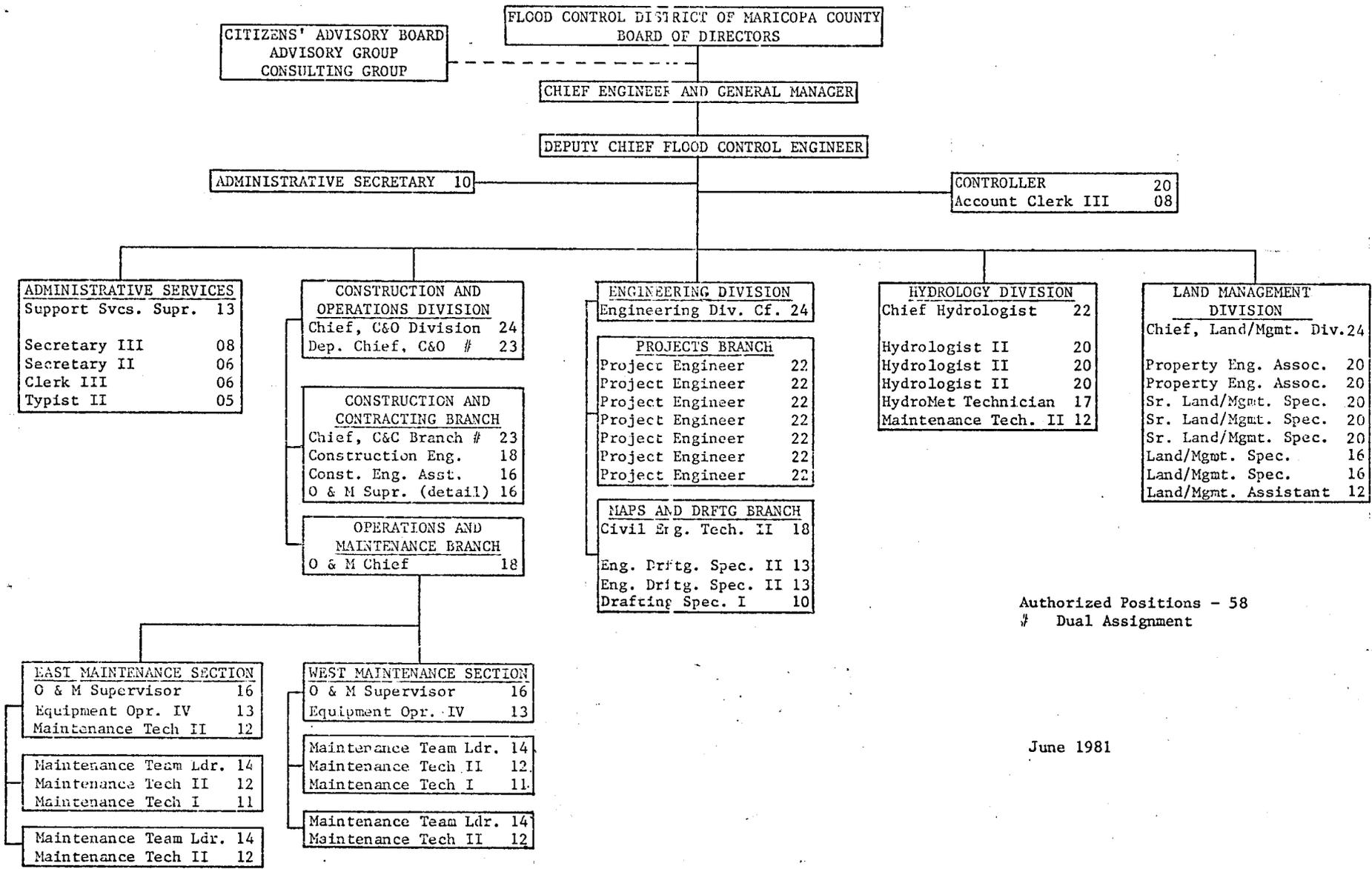
Tom Freestone (Chairman, January 5, 1981 to June 30, 1981)
Fred Koory, Jr. (Chairman, July 1, 1980 to January 5, 1981)
Hawley Atkinson
George L. Campbell
Ed Pastor

Citizens' Flood Control Advisory Board

John E. Miller, Jr. (Chairman, November 26, 1980 to June 30, 1981)
Paul E. Perry (Chairman, July 1, 1980 to November 26, 1980)
H. Lynn Anderson
Elijah Cardon (July 1, 1980 through October, 1980)
Charles A. (Bill) Sykes
Dean Sellers (February, 1981 to June 30, 1981)
J. E. Attebery
Reid Teeples

Principal Officers

William D. Mathews	Chief Engineer and General Manager
Daniel E. Sagramoso	Deputy Chief Engineer
Larry J. Richmond	General Counsel
John J. Randall	Controller
Sue Mutschler	Support Services Supervisor
Stanley L. Smith	Chief, Construction and Operations Division
Nicholas P. Karan	Chief, Engineering Division
David R. Johnson	Chief, Hydrology Division
John E. Burke	Chief, Land Management Division



Authorized Positions - 58
Dual Assignment

June 1981