



Annual Report

Fiscal Year 2010-2011

Project Highlight:

75th Avenue Storm Drain

The District partnered with the City of Phoenix on the 75th Avenue Storm Drain and Durango Regional Conveyance Channel (DRCC) Project (Project), which was designed and constructed to mitigate the 100-year flood (having a 1 percent chance of occurring in any given year). The Project was recommended in the District's 2001 Durango Area Drainage Master Plan. The first phase of the Project was the design and construction of the 75th Avenue storm drain.

The 75th Avenue storm drain serves as the outlet for the DRCC to the east. The storm drain runs along 75th Avenue, starting south of Van Buren Street and ending at the Salt River. The Durango area, which is primarily industrial, had a history of ponding due to a number of factors including low road shoulders and elevated railroad tracks. The DRCC includes a channel, basin and storm drain along the railroad tracks to capture and convey flow from 64th Avenue to 75th Avenue. The storm drain remediates flooding along 75th Avenue thus providing increased safety from flood hazards, as well as providing an outlet for the DRCC flows.



Board of Directors

Per Arizona Revised Statute 48-3602, the Flood Control District is governed by a five-member Board of Directors that also serves as the Board of Supervisors for Maricopa County. The Board of Directors exercises all the powers and duties as ordinarily exercised by governing bodies in the acquisition and operation of property, contracting, and the regulatory functions. Board members elect a new chairman each year:

- Don Stapley, Chairman, District 2
- Fulton Brock, Vice Chairman, District 1
- Andrew Kunasek, District 3
- Max Wilson, District 4
- Mary Rose Wilcox, District 5

Flood Control Advisory Board

The Flood Control Advisory Board (FCAB) advises the Board of Directors on flood control, floodplain management, drainage and related matters. The FCAB reviews the District's planning studies, projects and operations/maintenance activities, and recommends to the Board of Directors an annual budget, including the five-year Capital Improvement Program (CIP).

The FCAB consists of seven members. Five of the seven members are appointed by the Board of Directors for five-year terms. The final two members are ex officio representatives from the Salt River Project and the City of Phoenix. FCAB members also serve the District as members of the Floodplain Review Board and Board of Hearing Review.

- Kent Cooper, Chairman
- Scott Ward, Vice Chairman
- DeWayne Justice, Secretary
- Hemant Patel
- Melvin Martin
- Wylie Bearup, Ex Officio
- Bob Larchick, Ex Officio

Engineering

The Engineering Division is responsible for technical support for all District activities, with main emphasis and expertise in hydrology, hydraulics, sediment transport and scour.

Responsibilities of the Engineering Division include:

- Maintaining and operating the Flood Warning System which has more than 350 automated rain, weather, stream and impoundment gages over 11,800 square miles
- Maintaining the drainage design manuals and the District's library which houses more than 8,000 reports and documents for public access
- Managing and performing floodplain delineations
- Managing water quality and mapping and surveying
- Conducting permitting for sand and gravel extraction in floodplains; conducting and reviewing two-dimensional flow modeling
- Developing and testing new processes and computer applications for engineering work
- Providing Computer Aided Drafting and Design and in-house design; reviewing services for all capital projects, maintenance support, permitting on District right-of-way, and planning

Summary of Fiscal Year-end Activity

Water Quality

- Completed 25 dry-weather major stormwater outfall identification projects
- Stormwater Pollution Prevention Plans review and support for White Tanks Dam construction project
- Conducted a stormwater audit of facilities

Engineering Applications and River Mechanics

- Added River Mechanics features to the "Drainage Design Manual System for Windows" (DDMSW) software and wrote a River Mechanics Manual for software
- Held four two-day FLO-2D training sessions for approximately 80 people (staff from Maricopa County Planning and Development (P&D)/Maricopa County Department of Transportation (MCDOT)/Flood, local engineering firms, National Resources Conservation Service, Arizona Department of Water Resources/Dam Safety, State Land, Arizona Department of Transportation, City of Phoenix, City of Scottsdale, City of Mesa, and other cities)
- Held one two-day sediment transport training session and one two-day Hydrologic Engineering Centers - River Analysis System training session for approximately 40 staff from Maricopa County departments (Flood/MCDOT/P&D)
- Developed six engineering software for hydrology, hydraulics, river mechanics, and Geographic Information Systems
- Made significant improvements to FLO-2D
- Performed more than 100 technical reviews for river mechanics related to CIP projects, area drainage master studies (ADMS), area drainage master plans (ADMP), watercourse master plans (WCMP), right-of-way permits, floodplain use permits, and sand and gravel permits



Mapping and Surveying

- Completed two projects, 7.5 square miles of aerial mapping for floodplain
- Completed two projects, 12 square miles of aerial mapping for design/construction
- Six dam settlement surveys completed
- Completed two dam boundary surveys completed

Floodplain Delineations

- 24 miles of floodplain delineation were completed including the Wittmann Phase II and the Wickenburg ADMS Phase I

Flood Warning Branch

- Installed two new Automated Local Evaluation in Real Time (ALERT) stations
- Made 1,293 ALERT station repair and maintenance visits
- Completed three annual data reports and one storm report
- Developed ALERT Data Display Maps for Google Maps version two
- Completed Wickenburg Flood Response Plan update

Planning and Project Management

The District's CIP Adopted Budget for Fiscal Year 2011 was \$60 million. The District expended \$52.7 million (or 88% of the adopted budget) in advancing its CIP. Construction costs totaled \$34.5 million; rights-of-way, \$6.8 million; design, \$8.2 million; \$0.6 million for the comprehensive energy reduction project for District buildings; and internal labor, \$2.6 million.

Construction projects completed or substantially completed included:

- Tres Rios
- Northern Avenue Storm Drain, in partnership with Maricopa County Department of Transportation
- White Tanks Flood Retarding Structure (FRS) No.3 Rehabilitation
- 75th Avenue Storm Drain and Durango Regional Conveyance Channel, in partnership with the City of Phoenix
- Old Cross Cut Canal Improvements, in partnership with the City of Phoenix
- Reems Road Channel and Basin
- East Maricopa Floodway Maintenance Road Paving
- Guadalupe FRS Crest Paving
- Broadway Road and 72nd Street Drainage Improvements, in partnership with the City of Mesa
- Broadway Road. Drainage Improvements West of Mesa Drive, in partnership with the City of Mesa
- 41st Place and Charter Oak Road Drainage Improvement Project, in partnership with the City of Phoenix
- Campbell Avenue Storm Drain Project (32nd Street to 35th Street), in partnership with the City of Phoenix
- 15th Avenue and Dobbins Road. Channel Project, in partnership with the City of Phoenix
- Jerry Street Drainage Improvements Project, in partnership with the City of Surprise



The District and its project partners achieved design completion on:

- Pinnacle Peak Road Channel and Basin
- Cloud Road and Sossaman Road Basin and Outlet
- White Tanks FRS No.3 Outfall Channel
- Downtown Phoenix Drainage System
- Sonoqui Wash Channelization Phase II
- White Tanks FRS No.4 Rehabilitation Phase I

Ongoing dam safety planning and design work was associated with White Tanks FRS No.4, Powerline FRS, Vineyard Road FRS, Rittenhouse FRS, Buckeye FRS No.1, Saddleback FRS, McMicken Dam and Cave Buttes Dam.

Substantial planning studies in progress included the Happy Valley Candidate Assessment Report, the Broadway/Rural Drainage Master Plan, the Gillespie Area Drainage Master Study (ADMS), the Wickenburg Area Drainage Master Plan (ADMP), the East Mesa ADMP Update, the Gila Bend ADMS, the Hohokam ADMP, and the 107th Ave. and Union Hills DCR, as well as mapping efforts.

Operations and Maintenance

Regular maintenance activities for District structures were performed during the year. Regular maintenance includes mitigating the effects of erosion and sedimentation; vegetation and vector control; maintenance of channels, floodways and outflow devices; and storm damage repair. Structure features were maintained to design standards. Floodways were kept free and clear of silt, debris and obstructive vegetation. Protective linings of banks and dikes for the long-term functional life of the structure were also maintained. The inspection team conducted annual inspections of each structure. Quarterly dam operational inspections were also conducted to guarantee the proper operation of outlets and spillways.

Development has occurred around District structures. This development makes dust control a priority. The division is working to pave maintenance access roads to prevent fugitive dust and stay within the Maricopa County particulate matter (PM 10) regulations. This year O&M paved the West bank maintenance road of the East Maricopa Floodway with chip seal eliminating PM 10 emissions.

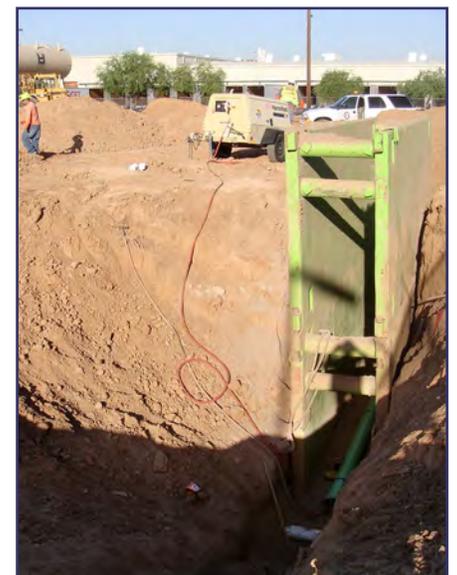
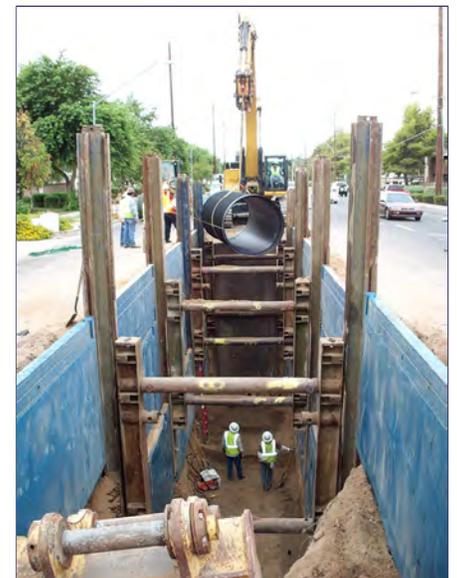
Floodplain Management Services

The Floodplain Management and Services (FMS) Division assists the District in implementation of its four strategic programs: Public Outreach, Identification, Regulation, and Remediation. The District conducts floodplain management for the unincorporated areas of Maricopa County and 13 of the 26 incorporated communities: Buckeye, Carefree, Cave Creek, Chandler, El Mirage, Gila Bend, Guadalupe, Litchfield Park, Mesa, Queen Creek, Surprise, Tolleson, and Youngtown.

FMS is comprised of five elements: general administration and four programs. The programs are customer service, technical review, regulatory compliance, and mitigation planning and technical programs.

Regulatory functions include: floodplain management; technical and community assistance; floodplain use permits and clearances; and inspection and enforcement of development.

FMS continually conducts public outreach by providing the customer with general floodplain and flood insurance information, publications,





information brochures, technical support, and floodplain map information. Community outreach opportunities also include participation in the National Flood Insurance Community Rating System Program, which offers financial and educational benefits to the citizens of Maricopa County. Staff is responsible for keeping the County in good standing with the National Flood Insurance Program (NFIP), and for maintaining eligibility in the NFIP to include data collection and reporting to maintain the Community Rating System Class ranking.

Summary of Fiscal Year-end Activity

- New County and Community Permit numbers issued during the fiscal year: 300, with 94% of permits completed within three months of submittal, and collected \$92,020 in fees
- Inspection and Enforcement: 501 inspections performed for unincorporated county permits completed, with more than 97% of the inspections being conducted within one day of the request; 68 floodplain inquiry cases were opened, with 32 of them having been completed/closed
- Entitlement Case Responses (Pre-Application, Zoning, Amendments, etc.): over 550 cases reviewed and memorandums issued to P&D and communities
- Average score for Customer Satisfaction Survey: 95%
- 5,281 customer information interactions: mail, telephone, fax, walk-ins, determinations, emails, on-line questions
- Permit and activity log databases updated and transitioned to internet-based programs, website information overhauled for easier customer access
- Revised and updated the Floodplain Regulations for Maricopa County to meet requirements established by the Federal Emergency Management Agency (FEMA) and the Arizona Department of Water Resources
- Partnered with the National Flood Insurance Program (NFIP) in May and helped sponsor a "Flood Insurance Training" for 40 insurance agents at the District
- Began development of the FMS Division Resource Manual, a guide to our business practices and procedures
- Completed Phase I (Inspections/Enforcement) and Phase II (Activity Log) of the FMS Database. Began working on Phase III (development review) of this project
- The District is rated by FEMA's Community Rating System (CRS) as one of the top 50 programs in the nation for comprehensive floodplain management and undertaking actions to reduce flood damages. Because of this, individual flood insurance policy holders in unincorporated Maricopa County receive a 25% discount on their flood insurance, which results in a cumulative annual savings of over \$275,000

2011 Financial Highlights

Preliminary and Unaudited

Revenue Collection Status

	Revenue Budget	Actual Revenue	Variance
Property Taxes	67,353,206	67,074,351	(278,855)
Licenses & Permits	633,600	379,767	(253,833)
Partnership Reimbursement	4,908,000	6,962,793	2,054,793
Payments in Lieu	155,691	158,645	2,954
Interest Earnings	800,000	750,684	(49,316)
Grant Funding	800,000	376,161	(423,839)
Miscellaneous Revenue	2,521,008	3,586,445	1,065,437
	<u>77,171,505</u>	<u>79,288,846</u>	<u>2,117,341</u>

Operating Budget—Financial Comparative

	Expenditure Budget	Actual Expenditures	Variance
Net Payroll	15,523,051	14,794,802	(728,249)
Net Supplies	1,906,952	1,471,827	(435,125)
Net Services	16,178,276	15,384,719	(793,557)
Net Capital	1,876,021	1,519,580	(356,441)
Intergovernmental Payments	1,119,305	1,184,369	65,064
	<u>36,603,605</u>	<u>34,355,297</u>	<u>(2,248,308)</u>

Grants

Services	800,000	398,379	(401,621)
	<u>800,000</u>	<u>398,379</u>	<u>(401,621)</u>

Capital Improvement Program

	Expenditure Budget	Actual Expenditures	Variance
Force Account Payroll	2,498,000	2,618,810	120,810
ESCO Project	548,481	550,502	2,021
Land Acquisition	8,679,000	6,777,015	(1,901,985)
Design/Construction	48,823,000	42,760,251	(6,062,749)
	<u>60,548,481</u>	<u>52,706,578</u>	<u>(7,841,903)</u>

Fund Balance Reserves

	Operating Fund	CIP Fund	Total
Beginning Fund Balance	52,415,263	37,521,531	89,936,794
Total Revenue Collected	72,326,053	6,962,793	79,288,846
Less Expenses	(34,753,676)	(52,706,578)	(87,460,254)
Inventories	(78,501)		(78,501)
Transfer Out/In	(40,000,000)	40,000,000	
Ending Fund Balance	<u>49,909,139</u>	<u>31,777,746</u>	<u>81,686,885</u>