



# Annual Report

Fiscal Year 2011-2012

## Project Highlight: **Camelback Road Storm Drain**

The Camelback Road Storm Drain Project constructed a drainage system along Camelback Road from approximately 58th Avenue to 74th Drive. This project was a part of the Bethany Home Outfall Channel (BHOC) system which mitigates flooding in the West Valley, specifically along the north side of the Grand Canal in Sunset Knoll and Holiday Park neighborhoods in west Phoenix and the Missouri Park neighborhood of south Glendale, from all events up to and including a 100-year flood.

The Camelback Road Storm Drain Project consists of: a large storm drain pipe under Camelback Road, lateral storm drain pipes north of Camelback Road, and storm drain inlets to capture the storm water. Prior to construction of the storm drain, the area had a history of flooding with depths as high as two feet which caused significant disruption and safety issues. Now complete, the project conveys the 10-year frequency storm 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:

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

## Flood Control Advisory Board

The Flood Control Advisory Board (FCAB) advises to 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.

- Scott Ward, Chairman
- DeWayne Justice, Vice Chairman
- Melvin Martin, Secretary
- Hemant Patel
- Dallas Tanner
- 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

- Phase II Maricopa County Stormwater Permit Illicit discharge program
- Training staff on Stormwater Minimum Control measures as part of County's stormwater permit
- Support of intergovernmental agreements with the City of Mesa for discharging treated wastewater to the East Maricopa Floodway (EMF)

#### Engineering Applications and River Mechanics

- Held 10 one-day Drainage Design Manual System for Windows training sessions for Hydrology and River Mechanics for approximately 200 people (staff from Maricopa County Planning and Development (P&D)/ Maricopa County Department of Transportation (MCDOT)/Flood, local engineering firms, National Resources Conservation Service (NRCS), Arizona Department of Water Resources (ADWR) /Dam Safety, State Land, Arizona Department of Transportation (ADOT), City of Phoenix, City of Scottsdale, City of Mesa, and other cities)
- Held four two-day FLO-2D training sessions for approximately 80 people (staff from P&D / MCDOT/Flood, local engineering firms, NRCS, ADWR/Dam Safety, State Land, ADOT, City of Phoenix, City of Scottsdale, City of Mesa, and other cities)
- Developed six engineering software for hydrology, hydraulics, river mechanics, and Geographic Information Systems
- Established a Memorandum of Agreement with US Army Corps of Engineers for Hydrologic Engineering Centers software modifications
- 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**

- Aerial mapping completed for floodplain, six projects: 128 square miles
- Aerial mapping completed for design/ construction, four projects: 19 square miles
- Completed eight dam settlement surveys
- Completed two dam boundary surveys

### **Floodplain Delineations**

- Completed 196 miles of delineation, including completion of the Palo Verde detailed study (111 miles), Rainbow Valley/Waterman Wash delineation (44 miles) in addition to Guadalupe FDS, Wittmann Phase IV, Lower Agua Fria, Willow Springs and Rodger Creek

### **Flood Warning**

- Installed eight new Automated Local Evaluation in Real Time (ALERT) Stations
- Made 1,239 ALERT station repair and maintenance visits
- Completed three annual data reports
- Developed Air Quality Data Display Map on Google version two
- Completed Upper New River/Skunk Creek Flood Response Plan

### **Planning and Project Management**

The District's CIP Adopted Budget for the year was \$60 million. The District expended \$55.2 million (or 92% of the adopted budget) in advancing its CIP. Construction costs totaled \$41.5 million; rights-of-way, \$6.3 million; design, \$5.0 million; and internal labor, \$2.4 million.

### **Construction projects completed or substantially completed included:**

- Cloud Road and Sossaman Road Basin and Outlet, in partnership with the Town of Queen Creek
- Rose Garden Lane Channel, in partnership with the City of Peoria
- Pinnacle Peak Road Channel and Basin, in partnership with the City of Peoria
- Sonoqui Wash Channelization—Chandler Heights to Crismon, in partnership with the Town of Queen Creek and Maricopa County Department of Transportation (MCDOT)
- Camelback Road Storm Drain—59th Avenue to 75th Avenue, in partnership with the City of Phoenix and the City of Glendale
- Downtown Phoenix Drainage System—Jefferson Street Phase I, in partnership with the City of Phoenix
- 6th Street and Western Avenue Drainage Improvements, in partnership with the City of Avondale
- Hibbert and 1st Street Drainage Improvements, in partnership with the City of Mesa
- Mesa Vista Drainage Improvements, in partnership with the City of Mesa
- 525 East Mountain View Road Drainage Improvements, in partnership with the City of Phoenix
- 1525 West Helena Drive Drainage Improvements, in partnership with the City of Phoenix

- 69th Place and Avalon Drive Drainage Improvements, in partnership with the City of Scottsdale
- 69th Place and Windsor Avenue Drainage Improvements, in partnership with the City of Scottsdale
- 3201 North 66th Street Drainage Improvements, in partnership with the City of Scottsdale

**The District and its project partners achieved design completion on:**

- Durango Regional Conveyance Channel (DRCC)–75th Avenue to 107th Avenue
- Upper Camelback Wash
- Northern Parkway Drainage Improvements
- White Tanks FRS No.4 Outlet
- Sonoqui Wash Channelization Phase III
- Lafayette Interceptor Drain

Ongoing dam safety planning and design work was associated with White Tanks Flood Retarding Structure (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 Pinnacle Peak West Area Drainage Master Study (ADMS) , the Pinnacle Peak South ADMS, the Gillespie ADMS, the Wickenburg Area Drainage Master Plan (ADMP) , the East Mesa ADMP Update, the Peoria ADMP, the Hohokam ADMP, and the Lower Indian Bend Wash ADMS as well as several mapping efforts.

**Operations and Maintenance**

The Operations and Maintenance (O&M) Division completed regular maintenance activities for District structures. This maintenance includes inspection activities and regular scheduled maintenance to ensure all structures will operate as designed. O&M has completed the first year maintenance cycle of the Tres Rios Levee. Maintenance of the collector channel and the basins has taken the most effort.

The East Yard reestablished the low flow channel on reach 1 of the East Maricopa Floodway (EMF), the area downstream of Hunt Highway. In addition to the low flow maintenance, crews repaired bank erosion along EMF reach 1. After the channel and banks were reestablished the disturbed area had to be stabilized. The O&M Ecology Branch placed seeds and hydro-mulch on the slope embankment to provide stabilization for erosion control.

Other achievements include a new safety program and a National Association of Counties (NACo) award. The new safety program is called SAFESTART. The program focuses on recognizing hazards in the work place and at home. The focus of the program is keeping minds and eyes on our tasks to reduce accidents. The NACo award was presented for the Division training program which is designed to prepare employees to promote through the Division.

**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, 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 inspection and enforcement of development.

FMS continually conducts public outreach by providing general floodplain and flood insurance information, publications, informational 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 unincorporated county and community permit numbers issued during fiscal year: 373, with 92% of permit reviews completed within three months of submittal; collected \$107,780 in fees
- Inspection and enforcement: 650 inspections performed for unincorporated county permits completed, with 100% of the inspections being conducted within one day of the request; 103 Floodplain Inquiry cases were opened, with 32 of them completed/closed
- Entitlement Case Responses (pre-application, zoning, amendments, etc.): over 500 cases reviewed and memorandums issued to Maricopa County Planning and Development and communities
- Average score for Customer Satisfaction Survey: 97.2% from 108 responses
- 2,400 customer information interactions: mail, telephone, fax, walk-ins, determinations, emails, on-line questions
- Additional Phases of the Floodplain Management System Permit and Activity Log database were rolled out; website information was overhauled for easier customer access and to respond to new legislation (Sb1598)
- The revised and updated floodplain regulations for Maricopa County to meet requirements established by the Federal Emergency Management Agency (FEMA) and the Arizona Department of Water Resources (ADWR) were adopted along with timeframes and adjusted fee schedule November 30, 2011
- Completed sections of the FMS Division Resource Manual, a guide to our business practices and procedures
- Maricopa County moves to a Class 4 in the Community Rating System (CRS) program on May 1, 2012. The District is rated by FEMA's CRS as one of the top 11 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 up to a 30% discount on their flood insurance, which results in a cumulative annual savings of over \$357,000
- Staff completed FEMA certification for 7 levees



## 2012 Financial Highlights

Preliminary and Unaudited

### Revenue Collection Status

	Full Year Revised Budget	Collections Full Year	Collections Remaining
Property Taxes	61,777,160	61,725,304	51,856
Licenses & Permits	315,400	15,700,800	(15,385,400)
Partnership Reimbursement	11,637,000	12,870,348	(1,233,348)
Payments in Lieu	186,613	190,715	(4,102)
Interest Earnings	1,000,000	6,767,461	(5,767,461)
Grant Funding	566,100	351,527	214,573
Miscellaneous Revenue	642,756	2,264,806	(1,622,050)
	<u>76,125,029</u>	<u>99,870,961</u>	<u>(23,745,932)</u>

### Operating Budget - Financial Comparative

	Full Year		Funds Remaining
	Budget	Actual	
Net Payroll	15,735,287	15,192,039	543,248
Net Supplies	1,896,807	1,538,051	358,756
Net Services	16,888,748	12,485,826	4,402,922
Net Capital	2,246,681	1,989,983	256,698
Intergovernmental Payments	92,800	85,355	7,445
	<u>36,860,323</u>	<u>31,291,254</u>	<u>5,569,069</u>

### Grants

Services	566,100	329,309	236,791
	<u>566,100</u>	<u>329,309</u>	<u>236,791</u>

### Capital Improvement Program

	Full Year		Funds Remaining
	Budget	Actual	
Force Account Payroll	2,800,000	2,379,427	420,573
Land Acquisition	7,962,000	6,305,919	1,656,081
Design/Construction	49,238,000	46,517,905	2,720,095
	<u>60,000,000</u>	<u>55,203,251</u>	<u>4,796,749</u>

### Fund Balance Reserves

	Operating	CIP	Total Reserve
Beginning Fund Balance	49,931,358	31,777,747	81,709,105
Total Revenue Collected	86,959,242	12,911,719	99,870,961
Less Expenses	(31,620,563)	(55,203,251)	(86,823,813)
Inventory	39,040		
Transfer Out/In	(45,016,966)	45,000,000	(16,966)
	<u>60,292,111</u>	<u>34,486,215</u>	<u>94,739,286</u>