Annual Report
Fiscal Year 2007-2008

Project Highlight:

Spook Hill Flood Retarding Structure Rehabilitation

Spook Hill FRS is a four-mile-long, earthen dam located in Mesa along the west side of a new segment of the Loop 202 Red Mountain Freeway. The District determined that overall rehabilitation of the dam was required following field investigations which found cracking within the embankment. Due to the parallel alignment of Spook Hill FRS with the new freeway segment, the Arizona Department of Transportation and the District entered into an agreement to include the rehabilitation of the dam, at the District's cost, as a part of the freeway construction contract. Updates to the dam include the construction of a new principal outlet drain, and a sand material zone in the center of the dam to prevent dam failure due to structure cracks. Both upgrades meet current dam safety standards. Once the rehabilitation is completed, Spook Hill FRS will have an estimated 100-year life span.

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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 regulatory functions. Board members elect a new chairman each year:

- Andrew Kunasek, Chairman, District 3
- Fulton Brock, 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 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.

- Melvin Martin, Chairman, District 5
- Hemant Patel, Vice Chairman, District 3
- Kent Cooper, Secretary, District 2
- Scott Ward, District 1
- DeWayne Justice, District 4
- Ray Acuña, Ex Officio, City of Phoenix
- Paul Cherrington, Ex Officio, Salt River Project

Engineering

The Engineering Division manages projects and programs in structure design, hydrology and hydraulics (quantity, depth and flow of stormwater), engineering applications development, river mechanics, flood warning systems, mapping/surveying, sand and gravel mining regulation, and water quality.

- Developed a stormwater pollution prevention plan for the White Tanks FRS remediation project
- Worked on a pilot program for Rapid Floodplain Delineation
- Upgraded the District software "Drainage Design Management System for Windows (DDMSW)" with the new version of NOAA Atlas 14 (rainfall data)
- FEMA approved the Rio Verde floodplain delineation that was done by in-house staff using 2-D software
- Worked with the U.S. Army Corps of Engineers to accomplish a HEC-RAS Customization for Side Weir Modeling
- Flood Warning Branch:
  - Compiled Storm Reports for July 26 and July 29, 2007; Nov. 30 and Dec. 1, 2007; and Jan. 27, 2008
  - Installed eight new ALERT stations, including Loop 202/Spook Hill Flood Retarding Structure (FRS)
- Completed flood response plan update for Wickenburg
- Engineering Library used by 790 non-staff customers

Planning and Project Management

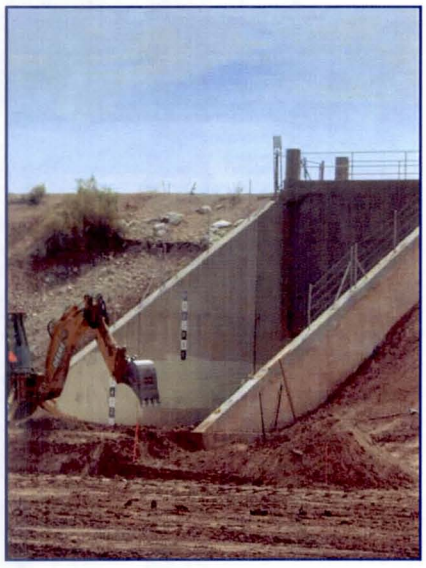
The District's Capital Improvement Program—its primary mechanism for mitigating existing regional flood hazards—accounted for 60% of its total Fiscal Year 2008 expenditures. Total expenditures consisted of $2.9 million in design costs, $8.7 million in right-of-way acquisitions, $42.6 million in construction costs and $1.9 million in internal labor charges.

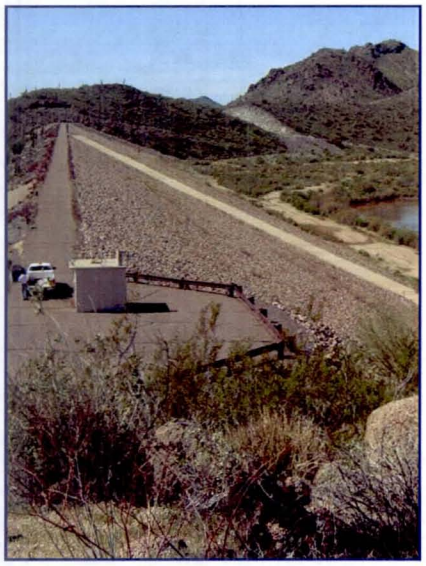
Construction projects completed or substantially completed included:

- Rehabilitation of the Spook Hill Flood Retarding Structure, accomplished in conjunction with the Arizona Department of Transportation's SR-202L Red Mountain Freeway construction;
- Sonoqui Wash Channelization, from Higley Road to Chandler Heights Road, providing a 100-year level of protection;
- The final (southern) phase of construction of the North Inlet Channel to White Tanks Flood Retarding Structure No.3;
- The first phase of the rehabilitation of White Tanks Flood Retarding Structure No.3, intended to extend the life of the dam and upgrade its design to meet current safety standards;
- Scottsdale Rd. Channel Improvements, from Thunderbird Road to Sweetwater Avenue, providing a 10-year level of protection; and
- 24th Avenue & Camelback Road Detention Basin and Storm Drain, mitigating flooding associated with the watershed extending from the Arizona Canal Diversion Channel to the Grand Canal, between Interstate 17 and 19th Avenue.

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

- Reach D of the Bethany Home Outfall, a half-mile segment of the conveyance channel along the Grand Canal, between Indian School Road and 67th Avenue;





- Reems Road Channel and Basin, completed using in-house resources, which will serve as the outfall for upstream channel construction by the City of Surprise; and
- The Hermosa Vista/Hawes Road Storm Drain and Basin project.

Floodplain delineations were completed for: Lower Painted Rock Watershed (Zone A, Phase 3); White Tank Alluvial Fans; Upper New River Area Drainage Master Plan; Chandler/Gilbert (Phase 1); and Cave Creek Drainage Master Plan.

Dam rehabilitation planning efforts were conducted on White Tanks Flood Retarding Structure No.4, McMicken Dam and Buckeye Flood Retarding Structure No.1, and earth fissure investigations were ongoing on Powerline Flood Retarding Structure.

Operations and Maintenance

The District operates and maintains 78 flood control structures. Many of these facilities were constructed in rural areas. Development has encroached on the facilities and maintenance practices have changed to accommodate the public. The Operations and Maintenance Division (O&M) has increased maintenance activities on bike trails throughout our structures. Vector issues in flood channels have become a larger concern when homes abut District flood conveyance channels. Controlling nuance water has been proven to be the best practice in the control of vectors.

This year O&M spent additional resources on the Powerline, Vineyard Road and Rittenhouse flood retarding structures plating maintenance roads and crest leveling. Material was also placed on the crest of the three structures to level the crest of the dams. This project included leveling of 14 miles of crest and plating 25 miles of maintenance roads to reduce fugitive dust.

Floodplain Management and Services (formerly Regulatory)

The Floodplain Management and Services Division is responsible for the Regulation program. Regulatory functions include floodplain management, floodplain use permits, code/regulation enforcement, and floodplain map information. The 50-year vision of the Floodplain Management and Services Division is to educate and influence citizens to balance the wise use of the floodplain and its resources through non-structural flood control measures, while preserving the natural and beneficial values served by floodplains.

- Division name change from Regulatory to Floodplain Management and Services
- County and community permits processed: 511 applications; $122,390 in fees collected
- Inspections and enforcement: 1,251 inspections for county permits completed; 217 violation cases opened
- More than 1,000 letters/memos were sent out responding to permit reviews, Maricopa County Planning and Development cases, and enforcement activities
- October 2007—Customer Service Survey initiated
- October 2007—Audit completed to prepare a verification report for the Federal Emergency Management Agency (FEMA)
- February 2008—District partnered with the Arizona Department of Water Resources (ADWR) and FEMA on a Substantial Improvement/Substantial Damage workshop

2008 Financial Highlights

Preliminary and Unaudited

Revenue Collection Status

	Full Year Revised Budget	Collections Full Year	Collections Remaining	Percent Remaining
Property Taxes	$69,683,115	$68,973,117	$709,998	1.0%
Licenses & Permits	1,883,000	2,759,309	(876,309)	-46.5%
Partnership Reimbursements	17,042,874	15,984,727	1,058,147	6.2%
Payments in Lieu	149,582	82,552	67,030	44.8%
Intergov. Charges for Services	0	12,000	(12,000)	0.0%
Interest Earnings	750,000	2,348,767	(1,598,767)	-213.2%
Miscellaneous Revenue	2,015,426	5,606,160	(3,590,734)	-178.2%
	$91,523,997	**$95,766,632**	**$(4,242,635)**	

Operating Budget – Financial Comparative

	Full Year Budget	Full Year Actual	Funds Remaining
Payroll	$14,770,259	$11,866,756	$2,903,503
Transfers	(418,409)	2,845,032	(3,263,441)
Supplies	2,354,107	1,875,109	478,998
Supply Transfers	304,157	127,453	176,704
Outside Services	17,853,784	15,146,777	2,707,007
Service Transfers	370,936	197,485	173,451
Capital Acquisitions	665,050	724,547	(59,497)
Debt Service	57,299	212,465	(155,166)
Capital Transfers	198,000	0	198,000
	$36,155,183	**$32,995,623**	**$3,159,560**

Capital Improvement Program

	Full Year Budget	Full Year Actual	Funds Remaining
Force Account Payroll	$2,174,000	$1,877,245	$296,755
Land Acquisition	12,472,000	8,718,051	3,753,949
Construction	46,147,000	44,586,290	1,560,710
	$60,793,000	**$55,181,586**	**$5,611,414**

Beginning/Ending Fund Balance Reserves

	Operating Fund	CIP Fund	Total Fund Reserve
Beginning Fund Balance	$11,588,134	$20,774,706	$32,362,840
Total Revenue Collected	95,766,632	0	95,766,632
Operating Transfers to CIP Fund	(58,357,554)	0	(58,357,554)
Funds Transferred to CIP	0	58,357,554	58,357,554
Total Funds Available	**$48,997,212**	**$79,132,260**	**$128,129,472**
Less:			
Operating Expenditures	$32,844,590	$0	$0
CIP Expenditures	0	55,181,586	0
Ending Fund Balance	**$16,152,622**	**$23,950,674**	**$40,103,296**