



# **Flood Control District of Maricopa County**

**Annual Report**  
2001 - 2002 Fiscal Year



## Flood Control District of Maricopa County

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## Mission and Vision

**The mission** of the Flood Control District of Maricopa County is to provide regional flood hazard identification, regulation, remediation, and education to Maricopa County residents so that they can reduce their risks of injury, death, and property damage from flooding, while still enjoying the natural and beneficial values served by floodplains.

**The District's vision** is for the residents of Maricopa County and future generations to have the maximum level of protection from the effects of flooding through fiscally responsible flood control actions and multi-use facilities that complement and enhance the beauty of our desert environment.

**We pledge** to be responsive to our clients in an efficient, effective, and fiscally responsible manner. We will show personal integrity and professionalism in all our actions, and display continuous improvement, innovative thinking, and technical expertise. We will be stewards of the environment and the public's trust, and we will be concerned about the effects of our actions on not only the current, but also future generations.

### Front Cover:

The Flood Control District celebrated its 10th anniversary in the Durango Complex this year. The building, which was designed and constructed especially for the District and which allowed for centralized operations for the first time, opened for business in October 1991.

## Chairman's

### Message

As an Arizona native, I value this County and the many resources it provides. The work of the Flood Control District has helped to preserve many of these resources while also helping to rejuvenate and revitalize some lost assets as well.

Across the nation, rivers are a precious, lush treasure. As our riverbeds in Arizona continue to dry up, they have become less and less inviting. However, through the work of the District, rivers throughout the County are being restored and lush riparian habitats are being created and preserved for the enjoyment of future generations.

Through responsible land planning and creative development Maricopa County residents will be able to enjoy the many wonders of the native desert environment. The District has established goals above and beyond the basics of flood control. Staff members have been both forward thinking and fiscally responsible in their efforts to protect county residents and resources and are truly interested in providing residents with multi-use facilities.

Over the years, the District has worked hard to enhance the environment and to create legacy projects that will be embraced and enjoyed by our great-grand children.



A handwritten signature in black ink, appearing to read "Andrew Kunasek".

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## Board of Directors

The Flood Control District is governed by a five-member Board of Directors who also serve as the Board of Supervisors for Maricopa County. The Board of Directors exercise all the powers and duties in the acquisition and operation of District properties, contracting, and in carrying out regulatory functions as ordinarily exercised by governing bodies.



**Fulton  
Brock**  
District 1



**Don  
Stapley**  
District 2



**Andrew  
Kunasek**  
District 3



**Max  
Wilson**  
District 4



**Mary-Rose  
Wilcox**  
District 5

## Message from the

# Chief Engineer and General Manager



In a year that focused primarily on fire control and preserving water in Arizona, the staff at the Flood Control District joked about a name change to the Drought Relief District.

This year saw very little rainfall in Maricopa County, the District continued its mission - planning for when the rains come and preventing disasters from occurring.

And the rains did come - not a lot - but enough to affect hundreds of residents and businesses in metro Phoenix.

Although, residents experienced only a small storm, it was enough to get a glimpse of what could occur when a large storm hits and why we need to be prepared.

For a number of years, the District has focused on the design and installation of flood control structures - successfully installing a protective ring of dams around Phoenix and its neighboring cities. But as growth and development in the County soars, the District has looked at alternative measures to keep residents safe and conserve tax-payers' money. Today, the District is focused on planning ahead of development and making sure that the County grows into a safe and habitable place to live.

This year, the District has finished 6 Area Drainage Master Plans, and 1 Watercourse Master Plan. These plans provide residents and developers with a guide for safe growth and development - away from flood and erosion hazard zones and drainage paths.

The District is also in the process of conducting 3 dam safety programs for its 22 area dams, which offer significant flood protection for County residents. Many of the dams were originally built to protect small watersheds and agricultural farmlands from flooding, and are now protecting increasingly urbanized areas. The District is focusing on assessing and rehabilitating them to meet current standards and to continue to offer necessary protection.

Our planning department has also identified a series of unique approaches to flood control that save lives and money. Particularly, the floodprone property acquisition program which purchases homes from residents in high hazard flood areas.

The District also continues to provide residents with attractive, multi-use flood control facilities - turning basins into parks and recreational amenities, and channels into trails.

The District and its staff continue to work towards a safer community for Maricopa County residents and increased protection in preparation for the next big storm.

A handwritten signature in black ink, appearing to read "M. Ellegood". The signature is stylized and written in a cursive-like font.

Michael Ellegood, P.E.

## About the

# District

- In 1959 the Arizona State Legislature realized that something needed to be done to control flooding in Maricopa County.
- By establishing the District, the legislature created an entity charged with keeping county residents safe from flood hazards and established an independent funding source for the projects needing funding.
- Before the District's inception, severe flooding occurred throughout much of the County during winter rains and monsoon season.
- Today, through effective engineering, dam and channel construction, regulation, and public education, massive flooding is less common.
- The District is a municipal corporation and political subdivision of the State of Arizona, which is governed by a Board of Directors that double as the County Board of Supervisors, with advice of a Citizens' Flood Control Advisory Board.

# Flood Control

## Advisory Board



**Scott Ward**  
District 1

**Kent Cooper**  
District 2 (not pictured)

**Hemant Patel**  
Chairman, District 3

**Shirley Long**  
District 4

**Melvin Martin**  
District 5

**Paul Cherrington**  
Salt River Project

**Tom Callow**  
City of Phoenix

**T**he Flood Control Advisory Board (FCAB) acts in an advisory role to the Board of Directors on flood control, floodplain management, drainage, and related matters.

The FCAB reviews planning, operations, and maintenance of flood control facilities, reviews program priorities and new policies, and recommends an annual budget to the Board of Directors that includes a five year Capital Improvement Program (CIP).

The Advisory Board consists of seven members, five are appointed by the Board of Supervisors for five-year terms. In addition to those five members, the Salt River Project and the City of Phoenix appoint representatives who are ex-officio members of the Advisory Board. The FCAB members also serve as members of the District Floodplain and Drainage Review Boards.

## Financial

### Highlights

**Fiscal Year Ending June 30,2002**  
**Preliminary and Unaudited**

	Dollars	Percent
<b>REVENUE</b>		
Flood Control Tax	\$44,775,297	60.8%
Local Participation	\$17,183,884	23.3%
Licenses & Permits	\$1,760,323	2.4%
Interest Income	\$643,554	0.9%
Land Sales And Rental	\$9,195,157	12.5%
Miscellaneous	\$123,710	0.2%
<b>TOTAL REVENUE</b>	<u>\$73,681,925</u>	100.0%
<b>EXPENDITURES</b>		
Operating	\$19,860,282	30.0%
Vehicles And Equipment	\$380,293	0.6%
Flood Control Capital Improvements	\$45,933,266	69.4%
<b>TOTAL EXPENDITURES</b>	<u>\$66,173,841</u>	100.0%
<b>NET CHANGE IN FUND BALANCE DUE TO OPERATIONS</b>	\$7,508,084	
<b>Fund Balance July 1, 2001</b>	\$11,308,471	
<b>Net Change From FY 2002 Operations</b>	\$7,508,084	
<b>Fund Balance June 30,2002</b>	<u>\$18,816,555</u>	

## District Finances

### Tax Levy Rate remains at \$0.23

The District is funded through a secondary County property tax: At the current levy rate, a typical property owner with an assessed valuation of \$100,000 pays an annual flood control tax of \$23.20 per year.

45 percent of the District's revenue comes from the flood control tax and this revenue generally covers the expense of the Capital Improvement Program projects.

Revenue from other sources include: the sale or lease of rights-of-way, fees that developers and individuals are required to pay to obtain building permits within Maricopa County, and cost-sharing with other entities.

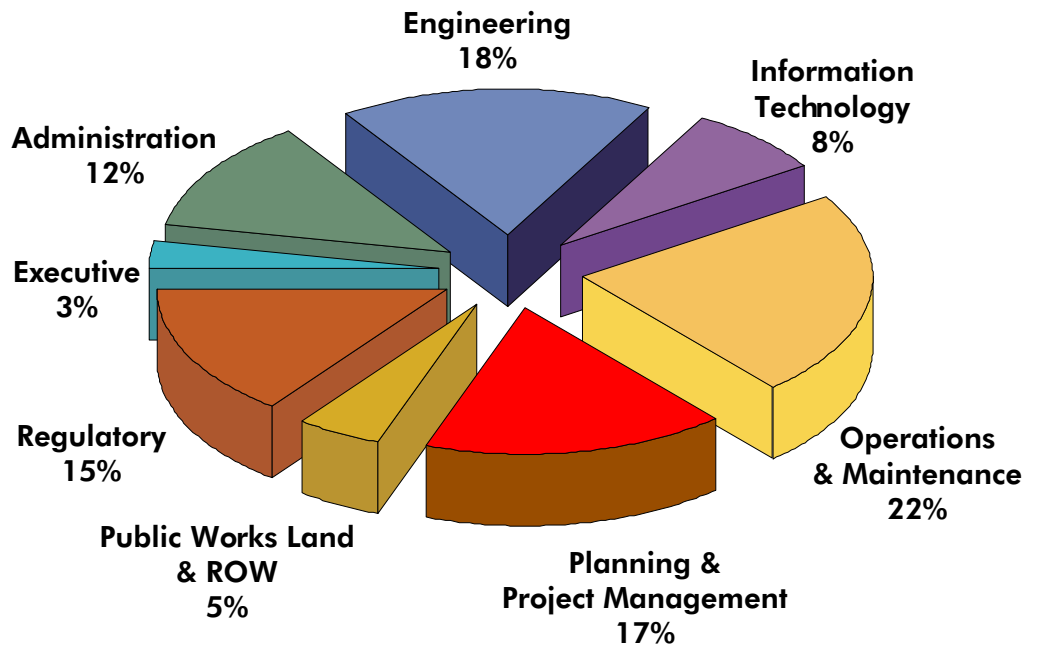
## Staff

### Breakdown

At the end of January, 2001, the District had 223 full-time employees and 10 temporary employees.

These employees are assigned to one of seven divisions: Administration, Engineering, Information Technology, Operations and Maintenance, Planning and Project Management, Public Works Land and Right-of-way, and Regulatory. There is also an Executive section that does not fall into a division.

The staff breakdowns as follows:



## The District's Role

The District provides the following:

- Identification of flood hazards and problems
- Regulation of floodplains and development
- Regulation of drainage and development
- County Watercourse and Drainage Planning
- Education for Flood Prevention & Safety
- Construction of Flood Control Structures and Facilities
- Flood Warning and Early Detection
- Maintenance and Operation of completed structures

# District Organization

**Chief Engineer and General Manager**  
Michael S. Ellegood, P.E.

**Public Information Office**  
Joe Muñoz

**Administration**  
David A. Brozovsky

- Contracting/Permitting
- Financial Services
- Facilities/Support Services
- Organizational Development and Training
- Human Resources

**Engineering Division**  
Edward A. Raleigh, P.E.

- Civil/Structural
- Hydrology/Hydraulics
- Flood Warning
- Mapping and Surveying
- Engineering Applications
- Special Projects
- Flood Delineation
- Water Quality

**Information Technology Division**  
Thomas J. LaMarche

- Applications Development
- Geographic Information Systems
- LAN Administration

**Operations and Maintenance Division**  
Charles F. Klenner

- Central/East/North Maintenance Yards
- Ecology
- Operations and Maintenance Resource Shop
- Work Control Center

**Planning and Project Management Division**  
Richard G. Perreault, Acting

- Capital Improvement Program/Policy
- Construction Management
- Planning
- Project Management
- Structures Assessment

**Public Works Land and Right-of-Way Division**  
James A. Schwartzmann, SRWA

- Acquisition
- Property Management
- Real Property Titles and Right-of-Way Plans

**Regulatory Division**  
Joseph J. Tram, P.E.

- Development Review
- Enforcement
- Floodplain (Administration)
- Floodplain (Technical)
- Inspections
- Permitting

## What areas does the District regulate?

The District is responsible for providing regional flood protection in all of Maricopa County and local flood protection in unincorporated Maricopa County.

**Future Planning:** The District is responsible for Watercourse Master Plans and Area Drainage Master Plans for Maricopa County.

**Identification of Hazards:** The District is responsible for Floodplain Delineation Studies in unincorporated Maricopa County, and in the towns and cities for which the District is responsible for floodplain management.

**Construction of Flood Control Structures:** The District is responsible in unincorporated Maricopa County, and cost shares with cities and other agencies on flood control structures that provide regional protection.

**Floodplain Management:** The District is responsible in unincorporated Maricopa County, as well as: Buckeye, Carefree, Cave Creek, Chandler, El Mirage, Gila Bend, Guadalupe, Litchfield Park, Mesa, Queen Creek, Surprise, Tolleson, and Youngtown

**Drainage Administration:** The District is responsible only in unincorporated Maricopa County and the Town of Cave Creek.

**The Flood Control District and its staff continue to blaze new trails with innovations and technologies, proactive approaches, cost-cutting methods, and job savvy. In fact, the District is now in the top one percent of floodplain management agencies in the United States.**



## **District wins National Award for Real-time Flood Forecasting Tool**

Steve Waters, Bing Zhao, and Ed Raleigh display their 2002 NACo Award with pride.

Over the past year, residents of Upper Skunk Creek living in a flood hazard area, have been sleeping safer knowing that the District now has a web-based Real-time Flood Forecasting system in place to increase the warning time in the event of flooding in that area.

This new computer program enables staff to make quicker and more accurate predictions about water flow amount and arrival times in the Skunk Creek watershed. This in turn provides staff with the information needed to make better decisions about evacuation notification.

Not only are area residents now protected, the District staff were also recognized this year with a national award for their efforts. The National Association of Counties (NACo) recognized the District for this program with an achievement award for its hard work to promote responsible, responsive, and effective county government.

## **District rated in top one percent of flood agencies**

**F**or over forty years, the District has provided flood control services in order to ensure public safety and to protect property in the event of flooding.

For these reasons, the District has been rated in the top 1 percent of floodplain management agencies in the United States. The federal accreditation process of floodplain management - the National Flood Insurance Program's Community Rating System (NFIP CRS) - now rates the District as a Class 5 agency. (A class 1 is the highest rating achievable.) Currently over 900 communities participate in this program and only 1 percent are rated as a Class 5 or better.

The District joined the program in 1991 at a Class 9 rating. Due to the work of the District, residents living in special flood hazard areas of unincorporated Maricopa County now receive a 25 percent discount on their flood insurance premiums.



## District staff honored for saving lives in Oct. 2000 floods

In October 2000, the small town of Wenden, Arizona sustained a devastating flash flood, which produced a river of water one-half mile wide and 12 feet deep. Although the town was ravaged, injuries were prevented by a timely alert from the District.

This year, District meteorologist Jim Perfrement received a commendation from the National Weather Service (NWS) for his early flood warning. Four hours prior to the storm, Perfrement contacted the NWS to alert them of a significant amount of rain falling upstream. He predicted that this rainfall would run off into Centennial Wash and rise enough to flood the Town of Wenden.

Perfrement, a former National Weather Service meteorologist, provided the NWS with real-time stream gauge information and alerted NWS staff to the urgency of the life threatening event.



Jim Perfrement in the District ALERT room



District Special Projects Manager Tom Loomis presents at the ASFPM Conference

## Flood Control Experts Gather in Phoenix for the National Conference

The 26th annual Association of State Floodplain Managers (ASFPM) conference, the premiere flood management training event, was held June 2002 in Phoenix and sponsored by the Flood Control District. Arizona was chosen because of the special challenges the state faces when it comes to flood hazard management. The unique character of Arizona's desert, distinctive watersheds, and the infrequent flooding in the state means that local floodplain managers need to be even more prepared and educated when a storm event happens. In addition, the treacherous Arizona monsoons create serious flash flooding problems for desert residents. At the conference, District Chief Engineer and General Manager Mike Ellegood served as one of the keynote speakers, and seven District staff members were chosen to make presentations.

## District General Manager honored with Lifetime Achievement Award

This year Arizona Society of Professional Engineers honored District Chief Engineer and General Manager Mike Ellegood with the prestigious Engineering Lifetime Achievement Award.

Ellegood was honored during National Engineer's Week because he best exemplified integrity, professionalism, and humanitarianism.

Ellegood's career spans almost 40 years, taking him across the Country to serve in a variety of positions and leaving behind a legacy of important flood control and transportation projects.

# Statement Of

## Revenues and Expenditures

Budget And Actual For The Fiscal Year Ending June 30, 2002  
Preliminary And Unaudited

	Budget	Actual	Variance Favorable -Unfavorable
<b>Revenue</b>			
Flood Control Tax	\$45,500,000.00	\$44,775,297.22	-\$724,702.78
Local Participation	\$20,800,000.00	\$17,183,883.75	-\$3,616,116.25
Licenses & Permits	\$1,500,027.00	\$1,760,323.02	\$260,296.02
Land Sales And Rental Revenue	\$10,032,397.00	\$9,195,157.33	-\$837,239.67
Interest Revenue	\$878,500.00	\$643,553.78	-\$234,946.22
Miscellaneous	\$748,000.00	\$123,709.57	-\$624,290.43
<b>Total Revenue</b>	<b>\$79,458,924.00</b>	<b>\$73,681,924.67</b>	<b>-\$5,776,999.33</b>
<b>Operating Expenses</b>			
Personnel Services	\$8,948,875.00	\$9,955,503.37	\$1,006,628.37
Reserve For Compensation Adjustment	\$676,978.00		-\$676,978.00
Supplies And Services			
Professional Services	\$6,197,449.00	\$5,492,603.66	-\$704,845.34
Maintenance Supplies And Services	\$1,257,332.00	\$619,386.57	-\$637,945.43
Internal Services	\$2,670,695.00	\$2,515,707.87	-\$154,987.13
Education And Travel	\$147,060.00	\$107,929.16	-\$39,130.84
Other Supplies And Services	\$1,354,031.00	\$1,169,151.82	-\$184,879.18
Capital Acquisitions	\$883,000.00	\$380,292.81	-\$502,707.19
<b>Total Operating Expenditures</b>	<b>\$22,135,420.00</b>	<b>\$20,240,575.26</b>	<b>-\$1,894,844.74</b>
<b>Capital Improvement Program</b>			
Personnel Services	\$2,626,000.00	\$1,878,326.00	-\$747,675.72
Real Estate	\$8,198,000.00	\$14,813,049.00	\$6,615,043.96
Engineering	\$10,777,000.00	\$8,496,097.00	-\$2,331,242.86
Construction	\$36,345,292.00	\$20,745,794.00	-\$15,549,151.49
<b>Total Capital Improvement Expenditures</b>	<b>\$57,946,292.00</b>	<b>\$45,933,266.00</b>	<b>-\$12,013,026.11</b>
<b>Total Expenditures</b>	<b>\$80,081,712.00</b>	<b>\$66,173,841.26</b>	<b>-\$13,907,870.85</b>
<b>Excess (Deficiency) Of Revenues Over Expenditures</b>	<b>-\$622,788.00</b>	<b>\$7,508,083.41</b>	<b>\$8,130,871.52</b>
<b>Fund Balance July 1, 2001</b>	<b>\$12,794,939.00</b>	<b>\$11,308,470.99</b>	
<b>Fund Balance June 30, 2002</b>	<b>\$12,172,151.00</b>	<b>\$18,816,554.40</b>	<b>\$6,644,403.51</b>

# Financial

## Commentary

### Management's Discussion and Analysis

The general slowdown in the economy experienced during Fiscal Year 2002 has had a profound effect upon the District's total operation, particularly in the area of the Capital Improvement Program, which has traditionally been highly dependent upon cost-sharing partnerships with local municipalities to fund structural flood control solutions. The depressed state of the economy has imposed stress on all municipal budgets and has required that city governments be much more judicious in selecting projects for which funds can be made available. The resulting reluctance of municipal governments to participate in flood control projects was the primary reason the District experienced a 7.2 percent ( \$5.8 million ) shortfall in budgeted revenue during the Fiscal Year.



L to R: Dick Perreault, Joe Tram, Joe Muñoz, Charlie Klenner, Ed Raleigh, Jim Schwartzmann, Joe Young, Tom LaMarche, Dave Brozovsky. Seated: Mike Ellegood  
Not Pictured: Susan Johnson

This situation has presented a year long challenge to District Management, in that more time, effort, and study has been required to secure partner participation in projects that are considered urgent and beneficial. In addition, the District has also experienced significant capital project delays and, in extreme cases, project cancellations. This is reflected in the Capital Improvement Program expenditure shortfall from budget ( \$12.0 million). In the case of project delays, District Management has reprogrammed the 5-year CIP budget to fund some of the delayed projects in future years.

Despite the depressed economy, the District utilized 79.3 percent of all available Capital Program budgeted funds. Sixteen structural and non-structural flood control projects were completed during the year including the Phoenix Rio Salado Project and the Laveen Area Drainage Master Plan, both of which are considered major accomplishments by District Management.

While the difficulties created as a result of the slow economy are most pronounced in the Capital Program, they have also affected the District's Operating Budget. In November 2001, the District participated in a Board of Directors requested voluntary budget reduction program that impacted the operating funds budget. The District voluntarily reduced budgeted funds by \$ 506,800 which came primarily from capital equipment acquisitions and planned outside contractual services.

In addition, personnel compensation increases for which funds had been allocated were foregone in an effort to incur operating expenses only for those items considered essential to fulfilling the District's mandated responsibilities and commitments. The operating philosophy that emerged from this atmosphere succeeded in restraining expenditures to a point under the revised operating budget total. The end result was a net savings of \$ 1,388,045 or 6.4 percent ).

As a result, the District's ending fund balance is \$ 18,816,554.51, which is an increase of \$ 7,508,083.52 from the Fiscal Year beginning balance of \$ 11,308,470.99. The increase in the fund balance will allow management far greater flexibility in setting the District's operating priorities and for potential expansion of the District's participation in related County programs. Further, this enhanced flexibility will allow the District to adjust the Capital Improvement Program budget to fund projects that were delayed during FY 2002, and to take advantage of future project opportunities that may arise as municipal governments recover from the present sluggish economic situation.

In summary, FY 2002 presented the District with major management challenges, the cause of which were, in most cases beyond the influence of the District to prevent. The District reacted to the challenges by focusing even greater scrutiny on all expenditures with the intent of setting funding priorities to accomplish statute mandated tasks first and then evaluating all other expenditures to achieve the most beneficial results. The increase in the ending fund balance positions the District to take advantage of future opportunities as they arise through management initiative.

## District Programs

It takes several hundred employees, partnerships with multiple government agencies, and a commitment to flood control to accomplish our mission of protecting the people of Maricopa County from injury, loss of life, and damages caused by flooding.

### Planning and Project Management

The District evaluates area watersheds and watercourses to determine the additional floodproofing and drainage measures needed to meet the current and planned development in that area. The District works with partner agencies to institute non-structural and structural alternatives.

### Capital Improvement Program

The District ranks and phases funding for approved structural flood control projects through design, land acquisition, relocations, and construction.

### Property Management

The District is responsible for the acquisition and management of land for flood control projects. In addition to the sale, lease, and rental of interim property, homes, and leftover land.

### Floodplain Management

The District administers the Maricopa County Floodplain Regulations and does so through the study and delineation of County floodplains and the regulation of development within floodplain boundaries.

### Drainage Administration

The District administers the County Drainage Regulations and coordinates with other agencies to ensure that new development does not increase runoff, divert flows, or back water onto other properties.

## Program

## Highlights

### Do you live in a floodplain?

If you wanted to find out if your house was built in a floodplain, or if the land you were trying to purchase was in the middle of a floodway, what would you normally have to do? You would probably spend hours on the phone tracking down the right agency, the person in charge, and those particular floodplain maps.

The District has made it possible for members of the public to click a button and find out directly if their homes are in a floodplain. Just put in your address and up pops a map featuring your house and its relation to the nearest floodplain.

The District also took the show on the road many times over this year at local home shows and expos.



### District Maps out its Future

This year, the District released its 2002 Comprehensive Plan, which is a blueprint for flood control in Maricopa County over the next 20 years. The plan helps with future decision-making at the District and helps staff to prioritize the areas in the County for future studies and flood control projects. The plan also prioritizes areas for funding and helps the staff anticipate future revenue needs. Finally, this document is a great source for the community to learn more about the District and the direction that is planned for your area.

### District works towards Stormwater Quality permitting deadline



Todd Williams presents at a conference on Stormwater management issues.

With the March 2003 stormwater runoff NPDES permitting deadline looming, the District has spent much of the year working with local municipalities and various county and state agencies to help Maricopa County comply with new federal stormwater pollution standards.

The new standards require all municipalities to obtain a permit to discharge stormwater, to monitor its quality, and to create a stormwater pollution prevention plan. Public education and information is a large portion of the effort.

## Public Awareness, Education, and Outreach

Throughout the year, the District participated in a variety of area trade shows and expositions, with the intent of reaching new residents and educating them about flood safety.

District staff also developed a variety of educational brochures, school and community presentations, websites, and displays to help further educate and raise awareness of flood hazards and flood control projects within the County.



The District educates fifth graders on flooding and flood safety.

### Flood Detection and Data Collection

The District monitors rainfall, streamflow, and weather information and reports this to other agencies for flood event response planning, evacuations, road closures, and flood watches and warnings. The District also uses the information in floodplain studies, watershed computer modeling, and flood control structure designs.

### Operations & Maintenance

The District maintains over 70 flood control structures and facilities, provides erosion and vegetation control, maintenance of roads, landscaping, fencing, and signage, and monitors structures during flood events.

### Dam Safety

The District currently owns and maintains 22 flood control dams in Maricopa County. The District ensures that these dams and other structures remain safe and continue to protect the public in the way they were intended.

### Stormwater Quality

The District provides guidance to minimize adverse environmental impacts due to District activities and provides support to local stormwater pollution reduction programs. The District also ensures that flood control structures comply with environmental regulations.

### Public Outreach

This program helps protect the public through education and information - teaching people about flash floods, the dangers of driving through washes, helping them determine if they live in a floodplain, and demonstrating the need for flood control in certain areas.

[www.fcd.maricopa.gov](http://www.fcd.maricopa.gov)

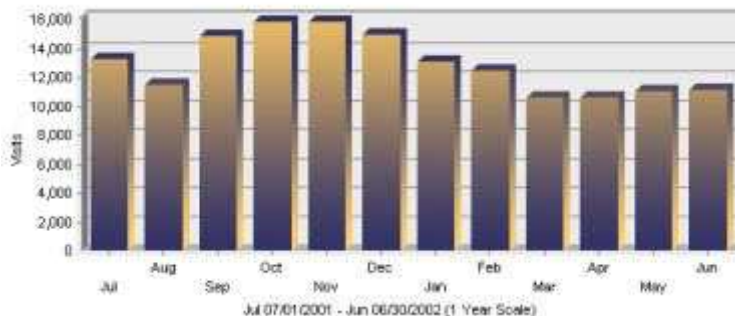
## District Launches New Website

This June, the District launched its new and improved website. Used by the general public, elected officials, and other agencies, the District website offers in-depth and timely information on District projects and services, as well as on-line forms and applications.

The new site is user friendly, regularly updated, and the number one source for information on flooding and flood control in Maricopa County.

### General Statistics FY 01-02

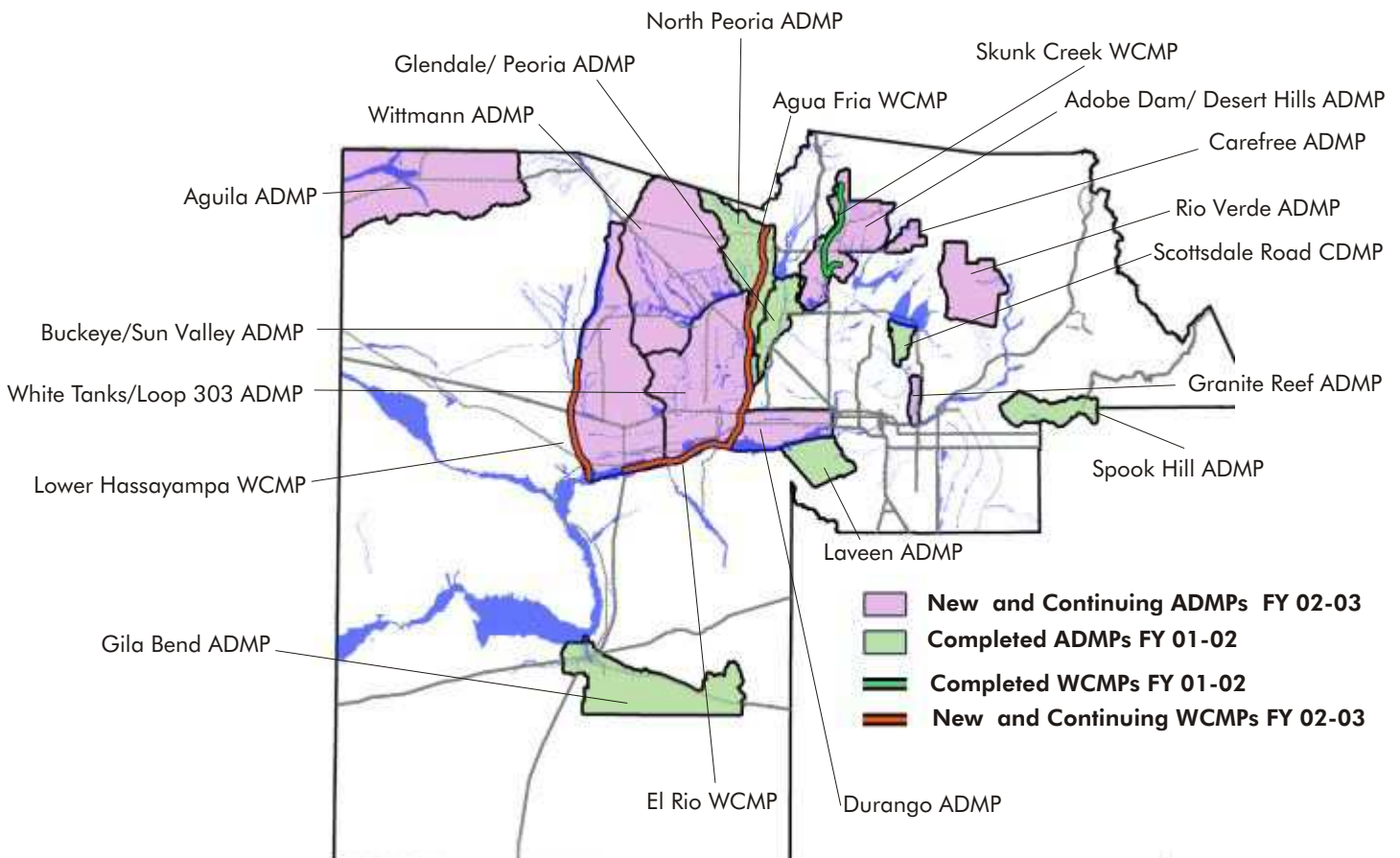
Successful Hits (Entire Site)	4,602,366
Page Views	716,421
Visits	155,394
Unique Visitors	24,630



# Planning

## District takes a new approach: Prevention

The District's goal is to complete Area Drainage Master Plans for all of the developable portions of Maricopa County by 2010, subject to the availability of funds. Currently, 26 of the 37 watersheds within the District's boundary have been studied and corresponding plans have been made for flood control measures.



## Skunk Creek Floodprone Property Acquisition

When planning how to keep the residents of Upper Skunk Creek safe from flooding, planners focused on a new approach to floodplain management.

Thirteen homes in the area were found to be located in the floodway and/or a severe erosion hazard zone. The owners of these homes have a high risk of injury and/or property damage from flooding and have less than a one-hour response time to evacuate in a flood emergency.

Due to this hazardous situation, the District instituted a voluntary acquisition program and made offers to acquire these homes. The estimated cost for acquisition of all 13 homes is \$2.8 million, which is a significant savings to taxpayers over the structural alternative, which would cost over \$12 million.

Residents receive fair market value for their property and are eligible for up to \$22,500 in additional relocation assistance. Currently, nine homeowners have accepted the District's offer.



# Project

## Management

Whether basins, channels, dams, or drains, the District continues to build flood control structures in communities throughout Maricopa County and to protect residents.

### Guadalupe Drainage Improvement Project



Project Manager Don Rerick (R), Supervisor Mary Rose Wilcox, and Mayor Cota of Guadalupe, Arizona getting ready for the groundbreaking Ceremony.

"It is always a wonderful feeling to be able to see a project move from a concept to construction," said Supervisor Mary Rose Wilcox (District 5). "We have worked long and hard to make this project a reality and to be able to protect the people of Guadalupe from flooding."

This flood control project involves the construction of a series of basins and storm drains. Three of the basins will become parks for the Town of Guadalupe, which currently has no recreational areas.

### Southeast Phoenix Regional Basin

Construction workers on the Southeast Phoenix Regional Basin place concrete on the basin spillway. This basin project was completed in August 2001.



### District Contracting

Type of Contract	Number Awarded	Contract Amount
Construction	5	\$20,212,710.55
Design Services	1	\$ 1,061,379.62
Engineering Services	40	\$ 8,180,000.00
Planning	5	\$ 4,301,270.88
Study	1	\$ 192,224.00
<b>Grand Totals:</b>	<b>52</b>	<b>\$33,947,585.05</b>

## Major Projects

### Completed

FY 2001/2002

- Baseline Road Storm Drain
- Carefree Town Center Drainage
- Golden Eagle Park Dam
- Greenway Parkway Channel
- Northern/Orangewood Storm Drain
- Oak Street Storm Drain
- Osborn Road Storm Drain
- Phoenix Rio Salado
- San Tan Collector Channel
- Southeast Valley Regional Drainage System

### Projects in Design or Construction

FY 2001/2002

- 24th Avenue/Camelback Basin
- 43rd Avenue/Southern Basin
- Bethany Home Outfall Channel
- Bullard Wash Channel and Basins
- Central Chandler Drainage System
- Doubletree Ranch Road System
- Durango Regional Outfall Project
- EMF Rittenhouse and Chandler Heights Basins
- Elliot Basin and Channel
- Ellsworth Channel
- Elliot Channel (Ellsworth to EMF)
- Elliot Channel (East of Crimson)
- Guadalupe Drainage Improvement
- Hawes Road Channel
- Laveen Area Conveyance Channel
- Queen Creek Channel
- Skunk Creek Low Flow Channel
- Sossaman Channel (US 60 to Baseline)
- Southern Avenue Channel

**O**ver this past year, the District has been moving forward on several newer initiatives, that are shifting from planning and study into implementation.

**These initiatives include:**

- Landscape Aesthetics, Multi-Use, and Recreational Opportunities
- Erosion Hazard Mapping and Analysis
- Floodprone Property Acquisition and Floodproofing
- Flood Control Structure Rehabilitation
- Watercourse Master Plans and Riparian Conservation



**District builds more value into its flood control facilities**

The planning and design of flood control facilities as places for people is a key issue and challenge facing floodplain managers in Maricopa County.

Local citizens and community leaders are now looking to the District to design flood control facilities that preserve natural desert open space, enhance the local community image, and provide opportunities for desert greenbelts and new parklands. With visionary leadership and “out of the box” thinking, the highly talented, multi-disciplinary staff at the District is increasingly embracing new concepts of landscape design and responding to these challenges.



**Development Guidelines - A New Approach**

**I**t is much more cost-effective to put flood control management solutions in place prior to the development of the area than to build expensive structures after people move in. In this regard, the District initiated an Area Drainage Master Plan in the North Peoria area, with the intent of planning ahead of development and growth and in keeping with the natural desert environment.

The study team finalized the plan this year and developed the first set of area-specific development guidelines in cooperation with local developers. These guidelines direct future developers and home owners how to approach flood control and minimize potential impacts to the watershed.

By providing solutions prior to development, the team limited the need for large structural projects, such as channels, dams, and regional detention basins in the area, and preserved the unique desert area for generations to come.

This new approach could have a possible cost savings to taxpayers of \$20 million - the possible cost for area structural solutions.

# Non-structural

## Approaches

As we move towards non-structural approaches to flood control, Drainage Administration and Floodplain Management play increasingly greater roles in accomplishing the District's mission.

### Floodplain Management

Fiscal Year	<u>99/00</u>	<u>00/01</u>	<u>01/02</u>
Delineations Begun	9	7	5
Delineations Completed	3	4	15
Floodplain Use Permits	249	261	368
Phone requests	3673	3652	3422
Walk-in Customers	697	691	882
Flood hazard info requests	7186	6492	5019
Flood hazard info notices	144	128	104



Doug McLaughlin (R) assists with a resident's inquiry.

These programs increase the District's visibility to the public. This relationship is maintained through walk-in and telephone requests for information, permit applications, website visits, drainage inspections, and public meetings in the community.

### Drainage Administration

Fiscal Year	<u>99/00</u>	<u>00/01</u>	<u>01/02</u>
Inspections conducted	9916	13,832	13,235
Miles driven by inspectors	157,235	161,131	171,339
Permits reviewed	7560	7957	11245
Total plan reviews completed	616	618	924
Drainage complaints	273	233	249

### Flood Detection & Data Collection

Fiscal Year	<u>99/00</u>	<u>00/01</u>	<u>01/02</u>
New ALERT gauges	9	16	20
Flood Response Plans	1	1	2
ALERT Web page hits	12,597	29,184	27,449
Gauge Repair Visits	723	734	938
Warning Messages & Alerts	204	401	448

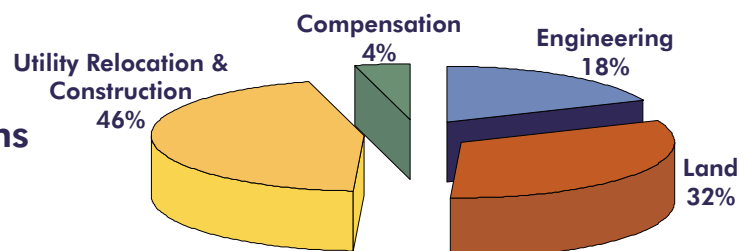
# Capital Improvement

## Program Expenditures

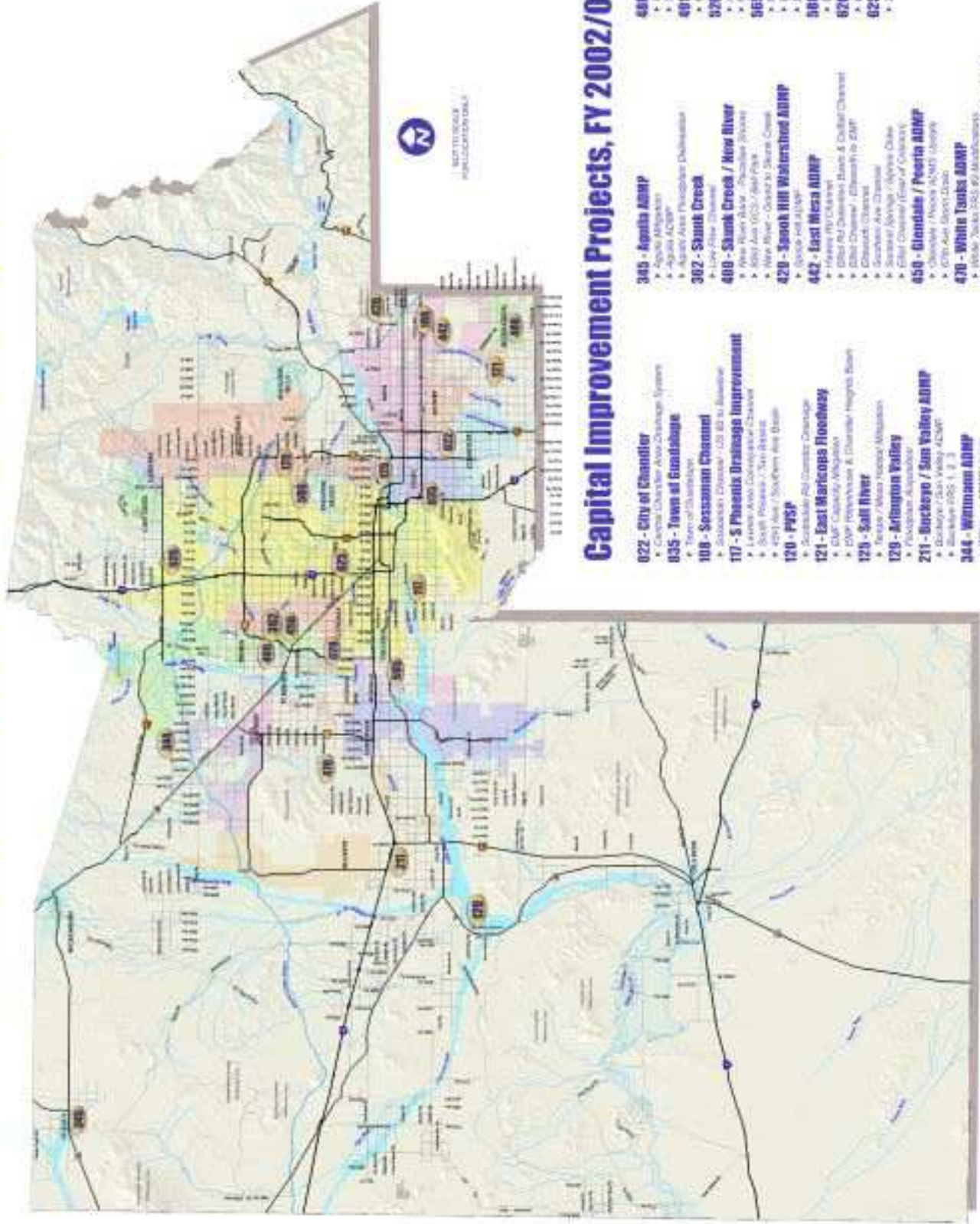
Preliminary and Unaudited  
For Fiscal Year Ending June 2002

Project	Engineering	Land	Utility Relocation & Construction	Compensation	Project Total
FCD Facility	\$420,678			\$20,939	\$441,617
Chandler Central Area			\$2,006,084	\$6,363	\$2,012,447
City Of Scottsdale	\$24,854	\$822	\$692,658	\$29,585	\$747,919
Town Of Guadalupe	\$281,577	\$41,272	\$1,306,382	\$105,005	\$1,734,236
Town Of Carefree			\$275,000	\$2,264	\$277,264
Dam Safety Program	\$1,000,139			\$185,849	\$1,185,988
Alma School Drain				\$984	\$984
Sossaman Channel	\$8,342	\$5,848	\$32,134	\$22,966	\$69,290
South Phoenix Drainage	\$433,854	\$1,127,315	\$1,840,006	\$348,979	\$3,750,154
PVSP				\$252	\$252
East Maricopa Floodway	\$939,359	\$5,596,988		\$77,614	\$6,613,961
Phoenix Rio Salado	\$73,095		\$8,529,126	\$123,376	\$8,725,597
Salt River				\$2,152	\$2,152
Buckeye / Sun Valley	\$483,162	\$843		\$25,122	\$509,127
SunnyCove Outfall		\$98,850		\$1,222	\$100,072
Wittmann ADMP	\$572,384			\$23,598	\$595,982
Aguila ADMP	\$415,252	\$292,643		\$50,611	\$758,506
Skunk Creek	\$30,976			\$14,602	\$45,578
Skunk Creek / New River	\$55,217	\$450	\$269,144	\$33,015	\$357,826
Spookhill ADMP	\$453,054			\$36,795	\$489,849
East Mesa ADMP	\$201,149	\$637,486	\$3,447,566	\$203,406	\$4,489,607
Glendale / Peoria ADMP	\$170,181	\$4,000	\$419,448	\$29,880	\$623,509
North Peoria ADMP	\$284,444			\$28,758	\$313,202
East Fork Cave Creek			\$971,357	\$1,228	\$972,585
White Tanks ADMP	\$1,001,691	\$926,598	\$371,589	\$181,753	\$2,481,631
Queen Creek ADMP	\$34,731	\$6,809		\$19,435	\$60,975
Gilbert / Chandler ADMP	\$1,828	\$46	\$333,168	\$25,884	\$360,926
Higley ADMP	\$15,189	\$4,698,187		\$11,366	\$4,724,742
Adobe Dam ADMP	\$310,572	\$471,173		\$44,419	\$826,164
Durango ADMP	\$138,790	\$2,924		\$67,099	\$208,813
ACDC ADMP	\$21,156	\$30,567		\$37,936	\$89,659
Scatter Wash		\$146,160		\$1,989	\$148,149
Maryvale ADMP	\$1,104,187	\$724,068		\$109,125	\$1,937,380
Foothills ADMP	\$10,876		\$252,132	\$4,750	\$267,758
Fountain Hills ADMP	\$9,360			\$5	\$9,365
<b>Total CIP Expenditures</b>	<b>\$8,496,097</b>	<b>\$14,813,049</b>	<b>\$20,745,794</b>	<b>\$1,878,326</b>	<b>\$45,933,266</b>

### CIP Expenditure Breakdowns



# FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM



## Capital Improvement Projects, FY 2002/03 - 2006/07

- 022 - City of Chandler**
  - Central Chandler Area Drainage System
- 035 - Town of Escalante**
  - Town of Escalante
- 100 - Sossamon Channel**
  - Sossamon Channel - US 89 to Sossamon
- 117 - S Phoenix Drainage Improvement**
  - Lower Area Comprehensive Channel
  - South Phoenix - San Blaise
  - 42nd Ave - Stockton Ave Drain
- 120 - PWSF**
  - Southside Rd Channel Channel
- 121 - East Maricopa Roadway**
  - East Maricopa Roadway
  - East Maricopa Roadway
- 129 - Salt River**
  - Salt River / West Maricopa
- 129 - Arlington Valley**
  - Arlington Valley
- 211 - Buckeye / Sun Valley ADMP**
  - Buckeye / Sun Valley ADMP
  - Buckeye PWS 1, 2, 3
- 344 - Watkinson ADMP**
  - Watkinson ADMP
- 345 - Agusta ADMP**
  - Agusta ADMP
  - Agusta ADMP
- 302 - Shunk Creek**
  - Shunk Creek
- 400 - Shunk Creek / New River**
  - New River / Shunk Creek
  - Shunk Creek / New River
- 420 - Spauld Hill Watershed ADMP**
  - Spauld Hill Watershed ADMP
- 442 - East Mesa ADMP**
  - East Mesa ADMP
  - East Mesa ADMP
- 600 - Queen Creek ADMP**
  - Queen Creek ADMP
  - Queen Creek ADMP
- 601 - Bigley ADMP**
  - Bigley ADMP
- 620 - Monte Dam ADMP**
  - Monte Dam / District Hwy ADMP
  - Monte Dam / District Hwy ADMP
- 665 - Durango ADMP**
  - Durango ADMP
- 666 - ACOC ADMP**
  - ACOC ADMP
- 620 - Marysville ADMP**
  - Marysville ADMP
- 625 - Metro ADMP**
  - Metro ADMP
- 650 - Glendale / Peoria ADMP**
  - Glendale / Peoria ADMP
  - Glendale / Peoria ADMP
- 470 - White Tanks ADMP**
  - White Tanks ADMP
  - White Tanks ADMP



## About Maricopa County

Maricopa County is located in south central Arizona, within the Sonoran Desert. The County is 9,226 square miles, of which 16 percent is incorporated and 84 percent is unincorporated. 30 percent of the land is held by private land owners.

Maricopa County is the 4th most populous in the U.S. and the 14th largest county.

The County population grows by 1,500 new residents every week. Currently the population stands at 3.2 million.

The five major river systems flowing through the County drain an area of approximately 57,000 square miles, which includes areas of New Mexico and Mexico.