

Flood Control District of Maricopa County

5 – Year Capital Improvement Program

*2002/2003
to
2006/2007*



Phoenix Rio Salado Low Flow Channel Phase II Project

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Flood Control District of Maricopa County
City of Phoenix
U.S. Army Corps of Engineers

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**Flood Control District
of Maricopa County**

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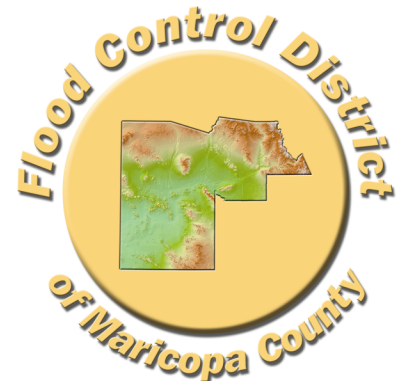


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Board of Directors

The Board of Supervisors for Maricopa County also serves as the Board of Directors for the Flood Control District of Maricopa County. There is one elected official from each of the five County districts. The Board of Directors makes the final decision regarding projects to be included in the Capital Improvement Program.

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

Flood Control Advisory Board

The 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, and recommends an annual budget, which includes a Five-Year Capital Improvement Program (CIP) to the Board of Directors. The FCAB, in close coordination with the District staff, reviews program priorities and new policies, and provides their recommendations to the Board of Directors. The FCAB members also serve the District as members of the Floodplain Review Board and the Drainage Review Board. The Advisory Board consists of seven members, five are appointed by the Board of Supervisors to 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 FCAB with all rights and privileges granted to other members. Regular FCAB meetings are held on the 4th Wednesday of each month, and/or the first Wednesday in December. These meetings begin at 2:00pm in the Flood Control District Administrative Building. Please contact the Flood Control District at (602) 506-1501 to confirm that a meeting is scheduled to occur.

District 1	Scott Ward
District 2	Kent Cooper
District 3	Hemant Patel, P.E.
District 4	Shirley Long
District 5	Melvin Martin
Ex-Officio	Paul Cherrington, P.E. (SRP)
Ex-Officio	Tom Callow, P.E. (City of Phoenix)

Chief Engineer & General Manager

Mike S. Ellegood serves as the Chief Engineer & General Manager for the Flood Control District of Maricopa County. Mr. Ellegood is a Registered Professional Engineer in Arizona, California, and New Jersey. He earned a Bachelor of Science degree in Civil Engineering from Carnegie Mellon and a Masters of Science in Civil Engineering from the Polytechnic Institute of New York. He served as commissioned officer in the U.S. Army Corp of Engineers and is a Vietnam Veteran. Mr. Ellegood is a member of the American Society of Civil Engineers, the American Public Works Association, and the Society of American Military Engineers.

Project Evaluation Committee

The Project Evaluation Committee, comprised of senior District managers, make CIP recommendations to the Chief Engineer and General Manager and the FCAB Program and Budget Committee. Their recommendations are developed using a system that allocates points to individual projects based on specific criteria. For more information, see section 2.4 Prioritization Criteria on Page 9.

The committee members are:

George Lindop: Inspections Branch Manager
Amir Motamedi, P.E.: Hydrology & Hydraulics Branch Manager
Dick Perreault: CIP/Policy Branch Manager
Ed Raleigh, P.E.: Engineering Division Manager
Jim Schwartzmann: Land Management Division Manager

Mission/Vision/Pledge

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.

Introduction

1.1 FCD Description and General Context

The Flood Control District was formed on August 3, 1959, following passage of State legislation empowering counties to set up special districts to provide flood protection. Flood control districts are political subdivisions of the State and have the same powers, privileges and immunities generally given to incorporated cities and towns. The District is governed by a Board of Directors who is also the elected Board of Supervisors for Maricopa County. This Board, in turn, is advised by a seven-member Flood Control Advisory Board. The activities of the District are funded primarily by a flood control tax levy assessed on real property within Maricopa County and a variety of cost-sharing arrangements with federal, state, county and local governments. The tax levy rate for the previous fiscal year (2001/2002) was \$0.2319 per \$100 of assessed value. The tax levy rate for Fiscal Year 2002/2003 has been set at \$0.2119 per \$100 of assessed value.

The District is organized into seven functional areas arranged in the following divisions: Administration, Operations & Maintenance, Engineering, Regulatory, Land Management, Information Technology, and Planning & Project Management. The Capital Improvement Program (CIP) serves as the cornerstone of the District's efforts to resolve flooding problems in Maricopa County. This booklet provides information on the anticipated expenditures for flood control projects and programs for the next five years, from July 2002 through June 2007.

1.2 What is the Capital Improvement Program?

The Capital Improvement Program (CIP) for the Flood Control District is a Five-Year Plan that identifies spending for anticipated capital projects. The Plan addresses both modification and replacement of existing infrastructure as well as the development of new facilities to accommodate future growth. This Plan also enables the District and its stakeholders to identify needed capital projects and coordinate financing and construction timing. To increase effectiveness, the CIP consists of two crucial

segments; an administrative process to identify and prioritize future capital projects (the Prioritization Procedure) and the fiscal plan to provide for the funding of those projects.

The CIP links the planning and budget activities of the District. It can support not only past policy decisions by establishing priorities between existing and competing projects, but can also measure and evaluate the merits of new proposals. Typically, a CIP describes each capital project proposed for development over the forthcoming five-year period by listing the year that it is to be started, the cost per year, and, when applicable, the proposed method of cost-sharing. Based on these details about each project, the District has developed annual cost schedules for capital expenditures. Thus, the capital improvement program presents both the cost and funding for all the project requirements for flood control purposes as tempered by current and future financial capability.

1.3 What is the Difference between the Capital Budget and the CIP?

The capital budget represents the first year of the capital improvement plan. The primary difference between the capital budget and the CIP is that the capital budget gives the District staff authority to spend funds and proceed with specific projects. The CIP includes both first-year projects as well as future projects for which financing has not been secured or authorized. The “out years” of the plan are projected, but not authorized and hence are subject to change. Every item in the capital budget must be approved by the Board of Directors and is closely reviewed by the Maricopa County Office of Management and Budget to ensure that it meets with the fiscal policies of the County. As a result, the capital budget must be prepared with great care owing to the need for accuracy as well as consistency with County revenue and expenditure forecasts for the upcoming year(s). The Five-Year CIP is developed and managed by the Planning and Project Management Division for the Chief Engineer and General Manager, the Flood Control Advisory Board, and the Board of Directors. Because it is not formally tied to the County’s budgeting process, it can be altered to reflect future requirements and expectations associated with capital projects more easily than the one-year capital budget.

1.4 Why Undertake CIP Planning?

The CIP process is dynamic and is continually reviewed and adjusted to account for revised forecasts for major expenditures in the future and adjusted project schedules. The CIP’s five-year perspective allows projects to be planned and programmed ahead of actual authorization. But the yearly repetition of the Prioritization Procedure and the CIP process ensures that each project undergoes several stages of review before it is finally approved and funded. This approach to capital planning is particularly meaningful in the rapid growth environment of Maricopa County. It ensures that new facilities will be evaluated within the context of County and municipal land use plans and weighed against safety and maintenance requirements for existing structures.

Among its many advantages, an effective capital improvement program:

- Focuses attention on goals, needs, and objectives. It ensures that the District's capital projects are consistent with changing community objectives, anticipated growth, and financial capabilities.
- Requires the scheduling of major investments and reduces the possibility of costly mistakes. It provides specific project information that assists the Flood Control Advisory Board and the Board of Directors in making sound budget decisions.
- Facilitates more efficient administration and management. Focused review of necessary capital improvements can reduce scheduling problems, conflicting and overlapping projects, and overemphasis on any single function or geographic area.
- Promotes cooperation with other jurisdictions. The capital planning process gives all jurisdictions the opportunity to coordinate location, timing, and financing of related projects.
- Allows leveraging of FCD funds with other funding sources.
- Maintains a sound and stable financial program. Dramatic changes in the County's tax structure can be avoided when capital projects are planned and implemented over several years.

Flood Control Planning & the CIP

2.1 Overview

The District maintains the Five-Year Capital Improvement Program (CIP) as called for in state statutes and directed by the District's General Policies. The Five-Year CIP includes all costs associated with the implementation of projects or elements of projects that have been proposed by federal, state, District or local programs. The selected projects are reviewed through the District's Prioritization Procedure that was approved by the Board of Directors in 1993 and put into effect for the Fiscal Year 1994/1995. These procedures were amended in 1995 and 1997, and 2001. The prioritization process solicits project requests from the District's client communities and other agencies. The process allows comparisons to be made between competing projects to ensure that CIP expenditures are allocated toward the greatest need.

Following the allocation of funds necessary for maintenance and other mandatory programs, the District budgets its remaining revenues for capital improvement projects and the related planning programs. When possible, multi-purpose uses of flood control projects and property are promoted and accommodated. This is possible provided the use does not diminish the flood control projects' primary purposes. In addition, the project costs and the facility's maintenance requirements should not be significantly increased.

2.2 The Planning Process

The Planning Program promotes the District's mission of "...reducing flood risks for the people of Maricopa County..." by preparing comprehensive regional studies and analyses identifying locations and property at risk from potential flooding. Following an analysis of flooding problems, alternative solutions are developed to determine the most cost effective and publicly acceptable project. Recommended projects are then prioritized for inclusion in the District's CIP. The CIP allocates resources and provides a timetable for the implementation of individual projects. This process usually includes the project design, relocation of conflicting facilities, acquisition of property and construction phases.

The combined Planning Program and Capital Improvement Program account for approximately 75% of the total Flood Control District annual budget. During FY 2001/2002, the District, in cooperation with other agencies and municipalities, completed 6 major long-term flood control capital projects and continued or initiated capital operations on 12 other projects. At the outset of Fiscal Year 2002/2003, 6 CIP projects are in the construction stage, 10 are being designed, while 10 are in the planning and/or land acquisition stage. In addition, the District will initiate effort on 9 new projects during the year by pursuing Board of Director's authorization and consummating Inter-Governmental Agreements with other agencies and municipalities. Activities in the Planning Program include: Area Drainage Master Studies (ADMSs); Watercourse Master Plans; the Comprehensive Flood Control Master Report; as well as, project pre-design studies; and the coordination of interagency cooperative projects and agreements. The District will continue the close historical working relationship it presently enjoys with the other municipal, county, state and federal agencies involved in furthering the District's mission.

Information on flooding and flood-prone areas is generated through the Area Drainage Master Study (ADMS) Program. The ADMS program was conceived in 1983 to provide the District with a proactive and leadership role in developing uniform, comprehensive inventories and models of the features influencing rainfall-runoff in selected areas. There are forty-eight ADMS areas ranging from 15 to 580 square miles. Area Drainage Master Plans (ADMPs) are then undertaken for each of the ADMS areas. These plans utilize the information provided by ADMSs and recommend specific, project-oriented or avoidance solutions for flooding problems. The ADMPs, along with requests from cities, towns and other agencies, are the primary sources of projects for the CIP.

The ADMS Program supports the planning effort by providing the physical characteristics and hydrology for a specific area. This Program utilizes a comprehensive watershed perspective, which is used to identify drainage and flooding problems reported by individual communities. Selected and approved alternatives to solve these problems are identified through the ADMPs and are implemented through the CIP. Watercourse Master Plans (WCMP) are similar to ADMPs, except that a WCMP has more of a focus on the management of a particular river, stream, creek or wash and its banks and nearby flood zones, while an ADMP focuses on flooding issues over a wider drainage area.

The proposed FY 2002/03 planning program will continue ten studies initiated during Fiscal Year 2001-02; eight (8) Master Plan studies (Scottsdale Road, Granite Reef, Carefree, Rio Verde, Wittmann, Adobe Dam/Desert Hills, Buckeye/Sun Valley, and Aguila), and two (2) Watercourse Master Plans (Agua Fria and El Rio). The proposed planning program also includes Candidate Assessment Reports to develop information for candidate projects to the District's Capital Improvement Program. The proposed planning program for FY 2002-2003 also includes one (1) new Watercourse Master Plan (Lower Hassayampa River WCMP) and continuation of the existing Structures Multi-use and Aesthetic Evaluation Project for evaluation of existing structures which have not been funded but will be implemented should sufficient funding is made available in a timely manner.

2.3 *Prioritization Procedure*

The Prioritization Procedure, employed by the District, was initially implemented for the FY 1994/1995 budget cycle and has been used since that time. It serves as the mechanism for evaluating new projects for possible inclusion into the CIP. Potential CIP projects are identified either by local cities, towns and other agencies, or through other District programs. The potential projects are evaluated on an annual basis for inclusion in the latter years of the CIP.

An important aspect of the Prioritization Procedure is the District's cooperation with its client communities in defining the criteria for project reviews. Tables included in Appendix 1 show the specific criteria and weights used in identifying project priorities, as determined through workshops attended by participating agencies and approved by the FCAB. The most recent workshop was held in May 2001.

The primary benefits of the Prioritization Procedure have been its ability to:

- Reduce uncertainty by applying District-approved and community-reviewed criteria during the project review process;
- Improve fiscal efficiency by requiring concurrent review of all project proposals annually and timing this review with the District's budget cycle;
- Eliminate duplication and improve community commitment by focusing planning efforts on projects approved for pre-design/feasibility analysis; and,
- Provide a means for reconstructing or reprioritizing the budget and Five-Year CIP with a minimum of disruption to ongoing activities by using an objective rank ordering system.

The prioritization procedure is accomplished in two major steps. First, all newly proposed projects are evaluated according to predetermined and weighted criteria by a committee of senior District staff members. The selected projects are included in a District-funded and prioritized pre-design study program. Requesting agencies may complete prioritized pre-design studies using consultants or in-house resources,

provided the information produced meets the minimum requirements of District-sponsored studies. The purpose of the pre-design study program is to develop more detailed information on potential CIP projects. This includes design and construction costs, land acquisition requirements, required permits, mitigation and multiple-use potential.

The second step includes the evaluation and prioritization of projects for inclusion in the District's Five-Year CIP. For projects requiring an Intergovernmental Agreement (IGA), the information developed in the pre-design study will serve as the basis for negotiations. When ADMPs are completed, a number of future pre-design studies and CIP project requests are identified. Input regarding the priorities for projects identified within these plans, will continue to be provided to local cities, towns and other agencies. When a CIP project has progressed to the stage where the engineering design, plans and construction specifications are being prepared, its place in the Five-Year CIP is generally maintained. The stability and timeliness of CIP project implementation are important to the timing of interrelated projects.

2.4 *Prioritization Criteria*

The Project Evaluation Committee that makes recommendations to the Chief Engineer and General Manager and the FCAB Program and Budget Committee develops their recommendations using a system that allocates points to individual projects based on specific criteria. These criteria include:

- Submitting Agency Priority
- Master Plan Element
- Hydrologic/Hydraulic Significance
- Level of Protection
- Area Protected
- Environmental Quality
- Area-Wide Benefits
- Total Project Cost
- Level of Partner(s) Participation
- Operation and Maintenance Costs
- Operation and Maintenance Responsibility

The prioritization criteria were developed with the goal of promoting a balanced approach to the evaluation of proposed projects. The District tries to identify and support flood control and regional drainage projects that not only provide long-term protection to individuals and property from flash floods and seasonal flooding, but that contribute to community development, protection of natural habitat, and maintenance of watercourse flow paths. The District also leverages its limited resources by entering into joint efforts with other agencies, municipalities or the private sector to fund flood control projects, and this is reflected in the prioritization criteria. Higher scores are given to projects that involve cost-sharing partnerships for the construction

phase and/or that involve agreements by other agencies or municipalities to take responsibility for post-construction operations and maintenance.

Although the relative weighting given to each criterion (total points per category) and the points actually assigned to each criterion for a given project by an Evaluation Committee member is somewhat subjective in nature, the evaluation procedure provides a uniform degree of objectivity to the process. The costs and benefits of the proposed projects are explicitly identified and documented. Proposed projects can be more easily compared once individual types of benefits and costs are separately quantified or otherwise evaluated. The inclusion of at least five senior staff representing different functional competencies on the Evaluation Committee further reduces the degree of subjectivity by ensuring that no one individual's personal biases excessively influence the evaluation process.

2.5 Integrating Projects into the Natural & Urban Environment

The District has made an additional commitment to ensuring that new flood control projects not only protect people and property from flooding threats, but also provide additional benefits. These benefits can include increased protection for natural habitat, new recreational facilities and open space, and aesthetically pleasing designs that contribute to the revitalization of urban areas. Although Maricopa County is located in a largely desert environment, much of the County is subdivided by canals, rivers, creeks and washes, and these linear attributes are a significant feature of the physical character of the area. Dams, retention basins, channels and outfalls can also be found throughout the County, and can have a major beneficial or negative impact on adjacent neighborhoods and natural areas depending on the design and management of these facilities.

The District is a partner in a number of efforts such as the **Marathon Trail** and the Bethany Home Outfall Channel Project, where flood control facilities are included as part of major urban redevelopment, environmental restoration and/or large scale recreational facility development. If resources are available, many existing flood control systems and facilities in established urban areas could be retrofitted or altered to allow for additional benefits or activities. Many District rights-of-way or facilities offer the potential to also provide bicycle/walking paths, habitat for native species, or attractions for local businesses, without threatening the underlying flood control role of these projects.

The **Bethany Home Outfall Channel** Project was identified in the Maryvale Area Drainage Master Plan (ADMP). The project includes a linear basin and channel along the Grand Canal extending westerly from 64th Avenue to the New River. The project will have a 100-year capacity removing approximately 745 structures from the floodplain. The channel alignment is in Phoenix, Glendale, and unincorporated Maricopa County. Portions of the channel are being used as a trail corridor and linear park.

The Project will extend along Bethany Home Road easterly from the Agua Fria Freeway and along the Grand Canal to 64th Avenue. The ADMP also recommends ten year capacity storm drains, located within Bethany Home Road and Camelback Road, extending from 59th Avenue to the Outfall Channel. Preliminary estimates indicate that the cost to construct this 100-year channel and 10-year storm drains is approximately \$67 million. The cost share for the project is estimated at 50% District, and 25% each for the Cities of Glendale and Phoenix.

Six public meetings have been held and six newsletters sent out since 1999 to inform the public regarding the project, and to gather public input. A goal of the project partners is to minimize the adverse impact of the project to the neighborhoods along the corridor. Construction times and methods will be controlled to limit noise and dust as the project is being built.

One segment of the project (73rd Avenue to 67th Avenue) requires the acquisition of 72 residences. In addition to the public meetings and newsletters that have informed the public about the project, these 72 residences have been contacted separately by the District, to ensure that they are informed of the project impacts as much as possible. In order to minimize the impact to these residents, the District has worked to maintain the schedule for acquisition of the properties. The District has also worked to accommodate requests from those residents desiring to be in the first group of properties to be purchased.

The first reach of the project (Agua Fria Freeway to 83rd Avenue) is scheduled for construction beginning in early 2003. Design and construction of the remainder of the improvements will be phased over several years, with completion anticipated in 2009.

The **Laveen Area Conveyance Channel (LACC) Project** represents a cooperative effort among the Flood Control District (FCD), City of Phoenix (COP), Salt River Project (SRP), Maricopa County Department of Transportation (MCDOT) and local landowners, to develop, design and construct a project that will provide a multi-use regional flood control and linear park facility. As lead sponsoring agency, FCD is developing the design for the 5.8 mile long flood control channel and 16 acre detention basin. The Project will include a 200-foot wide corridor for a grassed channel and adjoining park area. The channel will convey the 100-year flood and include a low-flow channel, which will convey existing irrigation tailwater to the Salt River. The COP is developing agreements with the Project landowners, to acquire the land needed for the Project at no cost, and provide incentives such as open space credits and relief of retention requirements. The low flow channel will convey water that currently is conveyed in SRP's tailwater ditch known as the Maricopa Drain. SRP will maintain the low flow channel upon Project completion. COP will maintain the flood control channel. MCDOT will provide funding to the Project, which will facilitate their planned upgrade of Baseline Road. FCD and COP are working together to incorporate low-cost aesthetic treatments of project features into the design. Construction of the basin is expected to begin in the spring of 2003, and channel construction is expected to begin in mid-2003, with completion by early 2004.

Financial Issues & the CIP

3.1 *Balancing Future Revenues & Expenditures – Budgetary Challenges*

The District operates on a “pay-as-you-go” basis. This means that the District’s entire capital budget is funded from current revenues, and that no borrowing takes place to finance capital projects like dams, channels and levees. The major advantages of this are that the District carries no debt load, that County taxpayers do not have to pay for interest charges on District structures, and that there is no need to try to match future debt and interest repayments with future revenues. Since a majority of the District’s revenues are spent on the CIP and long-term capital expenditures on flood control protection, taxpayers are in effect investing in the future of the County and their property and safety. This policy is quite different from that utilized by most government entities, which usually spend current revenues on operating expenses and debt repayment associated with past capital expenditures.

Most large government and private sector organizations that plan and construct very large projects over extended periods of time borrow funds to finance these large projects, and then pay for them over many years. Because these principal and interest costs can be distributed over many years, and the necessary funds are obtained from lenders at the beginning of projects, it is relatively easy for these organizations to plan their long-term capital budgets. The majority of the District’s revenue is derived from a secondary tax whose revenues can be difficult to predict because tax valuations based on property values and tax rates can fluctuate from year to year. The rate of growth in urban areas, and thus total tax revenues, can also have a major impact on total District revenues obtained in any given year. A strong economy, high levels of residential, commercial and industrial development, and rising property values will all lead to higher District revenues; conversely a poor economy and falling property values would lead to reduced tax revenue for the District, for a given tax rate.

Because the District’s capital spending is affected by strong fluctuations in tax revenue, the CIP must be constantly reviewed and adjusted to reflect the most recent information on current revenues and expected revenues over the coming years. In the early 1990’s, a weak economy led to lower District tax revenues, and capital spending had to be reduced to reflect this reality. More recently, high levels of housing, industrial and commercial development and rising property values have led to increased needs for flood control projects and increased assessment values. This has necessitated an expansion in the capital budget to initiate required projects while funds are available. The members of the Board of Directors, who are also the members of the County Board of Supervisors, sometimes alter the secondary tax rate to meet overall County fiscal objectives, and this too can have a major financial impact on the District.

3.2 Revenue Trends and Issues

Funding availability for the CIP is based on estimates that combine anticipated revenues from numerous sources with the District's anticipated flood control tax revenues. The District's tax revenues are a function of the tax rate, which is set annually by the Board of Directors. The Flood Control District tax applies to the assessed real property valuations, which are also set annually by the County Board of Supervisors. The majority of the District's Operating and CIP revenues come from the flood control tax that is levied County-wide.

Additional revenue results from the sale or lease of District rights-of-way and reimbursements from project cost-share partners. Over the past ten years, the inflation-adjusted revenues provided by the Secondary Tax to the District have fallen significantly, and when the increased size of the County's population and increased flood control needs associated with this larger urban area are taken into account, it is apparent that the District is being asked to do more with less. It is anticipated that the District's tax revenues will need to be increased above the current \$45 million level if projects in the CIP are to be funded and schedules are to be maintained.

Table 1—FCD Tax Rates by Fiscal Year

	Fiscal Year Tax Rate	Tax Revenue
'02/03	0.2119	\$44,868,000(est)
'01/02	0.2319	\$44,622,753
'00/01	0.2534	\$43,874,335
'99/00	0.2858	\$43,992,461
'98/99	0.3270	\$44,995,000
'97/98	0.3425	\$42,697,000
'96/97	0.3413	\$38,501,000
'95/96	0.3632	\$36,085,500
'94/95	0.3332	\$35,300,000
'93/94	0.3632	\$35,400,000
'92/93	0.3901	\$39,715,000
'91/92	0.4447	\$46,879,000
'90/91	0.4235	\$45,797,000
'89/90	0.4303	\$46,408,000
'88/89	0.5000	\$51,345,000
'87/88	0.5000	\$46,059,000

The CIP amounts shown in Table 2 reflect the District's FY 02/03-06/07 CIP forecasts. Annually, District staff will recommend that the Board of Directors set the secondary Flood Control tax rate sufficient to generate the required tax revenue to accomplish the CIP.

Table 2 – Estimated 5-Year CIP Funding		
Fiscal Year	Tax Revenue	CIP Amount
02/03	\$45,000,000	\$48,700,000
03/04	\$45,000,000	\$52,500,000
04/05	\$45,000,000	\$54,200,000
05/06	\$45,000,000	\$55,800,000
06/07	\$45,000,000	\$57,600,000

3.3 Increased Cost Sharing with Municipalities

Throughout the history of the Flood Control District of Maricopa County, the District has had to adapt to the evolution of the fiscal, political and institutional environment in which it operates. For most of the 1970s and 1980s, the District was heavily involved in cost-sharing partnerships with the Federal and State governments, initiating and participating in flood control projects that were planned and funded in large part by higher levels of government. With the virtual end of large-scale participation in regional flood control activities by the Federal Government and the State, the District was left in the position of being the primary source of technical expertise and financial resources for flood control in Maricopa County. As a result, the District must deal with a wide range of regional flood control challenges with a limited budget.

More recently, the District has adopted a number of strategies to address regional flood control problems while minimizing financial requirements. Under the direction of the Board of Directors and Flood Control Advisory Board, District staff have made a concerted effort to make maximum use of every dollar spent. A strategy used to obtain the “most bang for the buck” has been to leverage District capital program expenditures with contributions from municipalities and other agencies. One of the selection criteria for potential projects is the degree to which the projects will be paid for by other government entities; if a higher level of cost sharing can be negotiated, the projects are given a higher priority ranking by the District. A District goal is that it should only have to pay for half to two-thirds of the design and construction costs and that a municipality or other agency will be responsible for the remainder of those costs and for future operations and maintenance.

Reviewing the total dollar amount of reimbursements provided by the District’s partners during the 1980s, it is clearly evident that the trend is towards rising reimbursements. While total reimbursements were only approximately \$2.4 million in

FY 1992/93, they had grown to approximately \$7 million by FY 1996/97, to \$17.2 million in FY 2001/2002. Similarly, an examination of reimbursements as a percentage of total capital program expenditures indicates that the long-term trend is towards higher levels of cost-sharing. While in FY 1992/93 less than 10% of the District's capital program was funded by reimbursements from municipalities and other agencies, in FY 2001/2002 more than a third of the capital program budget was provided by other government entities. The depressed economy during the last 18 months has affected the ability of the District's partners to cost-share future projects.

Expenditures made by the District to operate and maintain flood control structures and adjacent property are substantial; in FY 01/02 these operations and maintenance (O&M) costs were approximately \$3.6 million, or about 5.4% of the total budget. One of the most important strategies of the District in recent years in terms of minimizing future expenditures and of providing the most regional flood control protection at the least cost has been to enter into partnerships on projects where the District is responsible only for capital costs and not for O&M costs. To date, the District has been very successful in negotiating cost-sharing agreements in which the District is absolved of any responsibility for future maintenance or operations. A large number of new projects involve intergovernmental agreements (IGAs) that restrict District involvement to only initial capital costs. More simply put, by following a policy of not assuming O&M on most projects since the early 1990s, the District will spend a smaller percentage of its budget on O&M annually.

3.4 The CIP: Implementing FCD Financial Strategies and Priorities

The District's capital spending utilizes the majority of the District's overall revenues, and the District's capital spending is directed by the Five-Year CIP. As a result, the Five-Year CIP must incorporate the District's strategies and priorities, and facilitate the achievement of the District's mission and objectives. Among the District strategies/priorities that are reflected in planned expenditures included in the Five Year CIP are:

- An increased emphasis on cost-sharing and partnerships so that the District is best able to leverage its limited financial resources into the most long-term flood control protection possible throughout the County. Partner contributions should be concurrent with District expenditures.
- A preference for partnerships in which the other partners (e.g. municipalities, agencies) assume full responsibility for operations and maintenance activities once the project has been completed.
- A continuing commitment to balance expenditures between newly-developing areas on the fringe of the urban metropolis, and existing older communities where retrofitting, repairs and project improvements are needed.
- A commitment to avoid the construction of new conventional hard structures when non-structural approaches such as flood plain delineation and management, natural watercourse improvements, and/or minor improvements to natural

drainage patterns can be used just as effectively from an economic perspective to protect lives and property.

- A focus on minimizing project costs and streamlining the contract tendering and management processes using information systems that track project progress and analyze engineering, land, and construction costs.
- Use of District-developed hydrological and flood control planning information by other entities so that private development infrastructure is built to District standards.

How to Use This Document

Included in this document are narrative descriptions and location maps for the four dozen projects that the Flood Control District of Maricopa County proposes to implement during the next five years (FY 2002/2003 through FY 2006/2007) and summaries of the CIP budget that show projected expenditures by "Area" (groupings of projects) and by "Project" (individual facilities and systems). Table 3 (Final) from FY 2002/2003 provides a summary of the results of the FY 2002/2003 Prioritization Procedure. Included in these tables are each of the projects recommended for CIP consideration through previous prioritization procedures. The Prioritization Procedure section includes a description of the procedures and criteria used in evaluating potential CIP projects.

The CIP budget in the Summary and Detailed Spreadsheet is provided in two different formats. Each summarizes estimated expenditures for all projects proposed for the District's Five-Year Capital Improvement Program for fiscal years 2002/2003 through 2006/2007. The first format is a summary of all of the CIP expenditures by "Area". Every Project Control Number (PCN) is made up of a seven-digit code that is used for tracking financial costs. The first three digits identify the "Area", or clustering or family of projects, and this is the level of detail that is used in the summary of CIP expenditures. For example, the White Tanks "Area" code includes five "Projects" that originated from the White Tanks Area Drainage Master Plan. In the summary, these individual "Projects" and their "Components" are not shown. The second format provides a more detailed listing of expenditures by individual projects, which are shown with both the three digit "Area Code" and the two digit "Project Code".

The figures in both tables are shown in thousands of dollars (i.e. 10 equals \$10,000), for ease of display, and are shown by fiscal year for each of the five years. A "Total" column sums all of the expenditures, by project, proposed during the five-year period. It is important to note that although most of the projects are scheduled to be completed in five years, those identified with an asterisk (*) will be continued beyond the five-year period. Possible reasons include: availability of funding; status of design or construction plans; or incompatible schedules of other related activities. Also

included in the tables are columns showing supervisor districts and the municipality where the project is located.

A description and details are provided for every project name and associated project control number appearing in the Five-Year CIP. Each project can thus be found in this document. Every project description includes basic information such as project name, project control number, the municipality or municipalities in which the project is located, partners involved with the design, administration, construction and/or funding of the project, anticipated beneficial results of the project, and the timing and cost of the project. The projects are listed in order of their project control numbers, or PCNs. An alphabetical list of projects is also provided at the beginning of this document that provides the PCN and page number for each project. The project managers responsible for each project and how to contact them is listed with the project descriptions. The project managers may also be contacted through the general District switchboard at (602)506-1501.

In some cases, such as those in which the planning and design work is complete and construction is already underway, the scope and cost of the project are almost entirely known. In others, a project might only be in the planning and design stage, and the exact physical design, geographical location, and total cost of the project are still unknown. As a result, the further along the project is, the more likely the project description is to be a complete and dependable guide to the specifics of the project. It should be noted that projects still in the early stages of the development process will be subject to change, and that significant increases or decreases in project costs do occur well into the design stage. In some cases District projects can be combined with other projects undertaken by ADOT or MCDOT, leading to major reductions in project costs, while in others, unforeseen land acquisition or project engineering costs can greatly increase project costs.

Questions or comments concerning this document or the District's 5-year Capital Improvement Program may be sent to:

R. G. Perreault, CIP/Policy Branch Manager
rgp@mail.maricopa.gov (602)506-4774

or

K. L. Presson, CIP Management Analyst
klp@mail.maricopa.gov (602)506-4489

This information is available on the District web site at: <http://www.fcd.maricopa.gov>

**Flood Control District of Maricopa County
CIP Budget/Schedule FY 03-07**

July 1, 2002									
CITY	DIST.	ACT #	DESCRIPTION	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	5-Yr TOTAL
			Tax Rate:	0.2119					
Multiple	All	C001	FCD OPERATIONAL FACILITIES	164	0	0	0	0	164
Multiple	All	001.04.31	Ortho Aerial Photography	164	0	0	0	0	164
Chandler	1	C022	CITY OF CHANDLER	348	3,010	0	0	0	3,358
Chandler	1	022.01.31	Central Chandler Area Drainage System	348	3,010	0	0	0	3,358
Guadalupe	5	C035	TOWN OF GUADALUPE	1,952	0	375	0	0	2,327
Guadalupe	5	035.02.31	Town of Guadalupe	1,952	0	375	0	0	2,327
Multiple	All	C050	DAM ASSESSMENT PROJECT	1,477	1,100	1,150	1,500	5,000	10,227
Multiple	All	050	Dam Assessment Project	1,477	1,100	1,150	1,500	5,000	10,227
Multiple	All	C051	CIP CARS	120	100	100	100	100	520
Multiple	All	051	CIP Candidate Assessment Reports	120	100	100	100	100	520
Phoenix/UMC	5	C117	SOUTH PHOENIX DRAINAGE IMPROVEMENT	8,970	4,188	200	2,500	2,500	18,358
Phoenix/UMC	5	117.02.30	43rd Avenue Southern Basin	2,440	0	0	0	0	2,440
Phoenix/UMC	5	117.08.31	Laveen Area Conveyance Channel	6,530	4,188	0	0	0	10,718
Phoenix/UMC	5	117.xx.xx	South Phoenix/Two Basins	0	0	200	2,500	2,500	5,200
Scottsdale	2	C120	PVSP	75	225	3,000	0	0	3,300
Scottsdale	2	120.03.31	Scottsdale Road Corridor Drainage	75	225	3,000	0	0	3,300
UMC/Mesa/Gilbert	1	C121	EAST MARICOPA FLOODWAY	1,664	1,200	3,000	5,000	5,000	15,864
UMC/Mesa/Gilbert	1	121.02.31	EMF Capacity Mitigation	110	0	0	0	0	110
UMC/Mesa/Gilbert	1	121.03.31	EMF Rittenhouse & Chandler Heights Basin	1,554	1,200	3,000	5,000	5,000	15,754
Tempe/Mesa	2	C125	SALT RIVER	100	0	0	0	0	100
Tempe/Mesa	2	125.05.31	Tempe/Mesa Habitat Mitigation	100	0	0	0	0	100
Arlington	2	C129	ARLINGTON VALLEY	35	1,200	0	0	0	1,235
Arlington	2	129.01.31	Arlington School Acquisition	35	1,200	0	0	0	1,235

**Flood Control District of Maricopa County
CIP Budget/Schedule FY 03-07**

July 1, 2002									
CITY	DIST.	ACT #	DESCRIPTION	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	5-Yr TOTAL
			Tax Rate:	0.2119					
Buckeye/UMC	4	C211	BUCKEYE/SUN VALLEY ADMP	1,070	1,100	0	0	0	2,170
Buckeye/UMC	4	211.01.31	Buckeye/Sun Valley ADMP	670	700	0	0	0	1,370
Buckeye/UMC	4	211.02.31	Buckeye Structure Acquisition	400	400	0	0	0	800
UMC	4	C344	WITTMANN ADMP UPDATE	1,000	488	0	0	0	1,488
UMC	4	344.01.31	Wittmann ADMP Update	1,000	488	0	0	0	1,488
Aguila	4	C345	AGUILA ADMP	395	150	0	0	0	545
Aguila	4	345.01.31	Aguila Hazard Mitigation Grant Program	0	0	0	0	0	0
Aguila	4	345.02.31	Aguila ADMP	150	150	0	0	0	300
Aguila	4	345.03.31	Floodplain Delineation	245	0	0	0	0	245
Glendale/Peoria	4	C362	SKUNK CREEK	40	720	0	0	0	760
Peoria	4	362.03.31	Skunk Creek Low Flow Channel	40	720	0	0	0	760
Multiple	4	C400	SKUNK CREEK/NEW RIVER	345	1,650	6,000	0	0	7,995
Peoria	4	400.06.31	New River (Grand - Skunk Creek)	200	1,350	6,000	0	0	7,550
Glendale/Peoria	4	400.07.31	83rd Ave. GCS/Bell Park	145	0	0	0	0	145
Peoria	4	400.08.31	New River (Paradise Shores)	0	300	0	0	0	300
Mesa/UMC	2	C420	SPOOK HILL ADMP	0	0	400	1,400	4,000	5,800
Mesa/UMC	2	420.01.31	Spook Hill ADMP	0	0	400	1,400	4,000	5,800
Multiple	1,2	C442	EAST MESA ADMP	8,473	5,350	9,090	7,200	4,000	34,113
Mesa/U.M.C.	1	442.04.31	Elliot Basin and Channel	1,533	0	400	0	0	1,933
Mesa/U.M.C.	2	442.05.30	Hawes Road Channel	2,000	1,000	0	0	0	3,000
Mesa/U.M.C.	2	442.07.30	Southern Avenue Channel	1,046	0	0	0	0	1,046
Mesa/U.M.C.	1	442.08.31	Ellsworth Channel	3,044	0	890	0	0	3,934
Mesa/U.M.C.	1	442.09.31	Elliot Channel (Ellworth to EMF)	250	2,250	3,200	3,200	0	8,900
Mesa/U.M.C.	1	442.10.31	Elliot Channel (E. of Crismon)	300	1,300	2,000	2,000	0	5,600
Mesa	1	442.11.31	Sunland Springs/Siphon Draw	300	800	2,600	2,000	4,000	9,700

**Flood Control District of Maricopa County
CIP Budget/Schedule FY 03-07**

July 1, 2002									
CITY	DIST.	ACT #	DESCRIPTION	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	5-Yr TOTAL
			Tax Rate:	0.2119					
Multiple	4	C450	GLENDALE/PEORIA ADMP	0	0	150	2,450	3,485	6,085
Glendale/Peoria	4	450.02.31	Glendale/Peoria ADMP Update	0	0	150	2,450	2,100	4,700
Glendale	4	450.05.30	67th Ave. Storm Drain	0	0	0	0	1,385	1,385
Multiple	4	C470	WHITE TANKS ADMP	950	2,250	8,780	9,000	9,600	30,580
UMC	4	470.04.30	White Tanks #3 FRS Modification	150	500	2,030	5,000	5,600	13,280
Avondale/Buckeye/El Mirage	4	470.10.31	Loop 303 Corridor/White Tanks ADMP Update	0	0	0	0	0	0
El Mirage	4	470.11.31	West Cactus Rd Detention Basin & Channels	0	0	0	0	0	0
Surprise	4	470.12.31	Reems Road Channel	0	0	0	0	0	0
Goodyear	4	470.13.31	Bullard Wash Phase II	800	1,750	6,750	4,000	4,000	17,300
Queen Creek	1	C480	QUEEN CREEK ADMP	1,820	1,000	1,000	4,700	4,000	12,520
Queen Creek	1	480.02.31	Queen Creek Channel	1,420	1,000	0	0	0	2,420
Queen Creek	1	480.04.31	Sanokai Wash Channelization	400	0	1,000	4,700	4,000	10,100
Multiple	1,2	C491	HIGLEY ADMP	210	350	1,000	2,250	5,000	8,810
Mesa/Gilbert/UMC	1,2	491.01.31	Higley ADMP	210	350	1,000	2,250	5,000	8,810
Multiple	3	C520	ADOBE DAM ADMP	3,021	950	0	0	0	3,971
Phoenix/UMC	3	520.01.31	Adobe Dam ADMP	1,021	150	0	0	0	1,171
Phoenix/UMC	3	520.02.31	Skunk Creek Floodprone Property Acquisition	2,000	800	0	0	0	2,800
Multiple	5	C565	DURANGO ADMP	250	3,000	6,900	6,000	4,000	20,150
Toll/Phx/Avon/UMC	5	565.02.31	Durango ADMP	0	0	0	0	0	0
Tolleson	5	565.03.31	Durango Regional Outfall	250	3,000	5,700	4,000	0	12,950
Avondale/Phx/UMC	5	565.04.31	Durango Regional Convenyance Channel	0	0	1,200	2,000	4,000	7,200
Paradise Valley	2	C580	ACDC ADMP	5,579	6,600	0	0	0	12,179
Paradise Valley	2	580.03.30	Doubletree Ranch Rd System	5,579	6,600	0	0	0	12,179

**Flood Control District of Maricopa County
CIP Budget/Schedule FY 03-07**

July 1, 2002									
CITY	DIST.	ACT #	DESCRIPTION	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	5-Yr TOTAL
			Tax Rate:	0.2119					
Multiple	4,5	C620	MARYVALE ADMP	6,824	12,090	4,515	8,400	5,250	37,079
Glendale/Phoenix	4,5	620.03.32	Bethany Home Outfall Channel	6,824	12,090	4,515	8,400	5,250	37,079
Phoenix	3	C625	METRO ADMP	150	250	3,100	0	0	3,500
Phoenix	3	625.02.31	24th Ave./Camelback Basin	150	250	3,100	0	0	3,500
SUBTOTAL PROJECTS				45,032	46,971	48,760	50,500	51,935	243,198
PROJECT RESERVE				1,072	2,829	2,640	2,500	2,765	11,806
PROJECTS TOTAL				46,104	49,800	51,400	53,000	54,700	255,004
FORCE				2,600					2,600
CIP PROJECTS TOTAL				48,704	49,800	51,400	53,000	54,700	257,604

CIP PROJECT BUDGET

Summary									
City	Dist.	Act#	Description	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	5-Yr Total
			Tax Rate:	0.2119					
Multiple	All	C001	FCD Operations	164	0	0	0	0	164
Chandler	1	C022	Central Chandler Area Drainage System	348	3,010	0	0	0	3,358
Guadalupe	5	C035	Town of Guadalupe	1,952	0	375	0	0	2,327
Multiple	All	C050	Dam Assessment Project	1,477	1,100	1,150	1,500	5,000	10,227 *
Multiple	All	C051	Candidate Assessment Reports	120	100	100	100	100	520
Mesa	2	C108	Sossaman Channel	0	0	0	0	0	0
Phoenix/UMC	5	C117	South Phoenix Drainage Improvement	8,970	4,188	200	2,500	2,500	18,358 *
Scottsdale	2	C120	PVSP	75	225	3,000	0	0	3,300
Gilbert/Mesa/UMC	1	C121	East Maricopa Floodway	1,664	1,200	3,000	5,000	5,000	15,864 *
Tempe/Mesa	2	C125	Tempe/Mesa Habitat Mitigation	100	0	0	0	0	100 *
Arlington	5	C129	Arlington Valley Floodplain Acquisition	35	1,200	0	0	0	1,235
Buckeye/UMC	4	C211	Buckeye/Sun Valley ADMP	1,070	1,100	0	0	0	2,170
Surprise/UMC	4	C344	Wittmann ADMP Update	1,000	488	0	0	0	1,488
Aguila	4	C345	Aguila ADMP	395	150	0	0	0	545
Peoria	4	C362	Skunk Creek	40	720	0	0	0	760
Multiple	4	C400	Skunk Creek/New River	345	1,650	6,000	0	0	7,995
Mesa/UMC	2	C420	Spook Hill ADMP	0	0	400	1,400	4,000	5,800 *
Mesa/UMC	1,2	C442	East Mesa ADMP	8,473	5,350	9,090	7,200	4,000	34,113 *
Multiple	4	C450	Glendale/Peoria ADMP	0	0	150	2,450	3,485	6,085 *
Multiple	4	C470	White Tanks ADMP	950	2,250	8,780	9,000	9,600	30,580 *
Queen Creek	1	C480	Queen Creek ADMP	1,820	1,000	1,000	4,700	4,000	12,520 *
Multiple	1,2	C491	Higley ADMP	210	350	1,000	2,250	5,000	8,810 *
Phoenix/UMC	3,4	C520	Adobe Dam ADMP	3,021	950	0	0	0	3,971
Multiple	5	C565	Durango ADMP	250	3,000	6,900	6,000	4,000	20,150 *
Paradise Valley	2	C580	ACDC ADMP	5,579	6,600	0	0	0	12,179
Phoenix/Glendale	4,5	C620	Maryvale ADMP	6,824	12,090	4,515	8,400	5,250	37,079 *
Phoenix	3	C625	Metro ADMP	150	250	3,100	0	0	3,500
Estimated External Expense				\$45,032	\$46,971	\$48,760	\$50,500	\$51,935	\$243,198
CIP Project Reserve				\$1,072	\$2,829	\$2,640	\$2,500	\$2,765	
Force				\$2,600					
Projects Total				\$48,704	\$49,800	\$51,400	\$53,000	\$54,700	

*Projects not completed during the five year CIP

REIMBURSEMENTS

Summary				Five-Year CIP x \$1,000					
City	Dist.	Act#	Description	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07	5-Yr Total
			Tax Rate:	0.2119					
Scottsdale	All	C001	FCD Operations	(106)	0	0	0	0	(106)
Guadalupe	5	C035	Town of Guadalupe	(74)	0	0	0	0	(74)
Phoenix/UMC	5	C117	South Phoenix Drainage Improvement	(1,400)	(1,400)	(3,400)	(1,250)	(1,250)	(8,700)
Scottsdale	2	C120	PVSP	(37)	(113)	(1,500)	0	0	(1,650)
Aguila	4	C345	Aguila ADMP	(112)	0	0	0	0	(112)
Glendale/Peoria	4	C362	Skunk Creek	(826)	(180)	0	0	0	(1,006)
Multiple	4	C400	Skunk Creek/New River	(265)	(825)	(3,000)	0	0	(4,090)
Mesa/UMC	2	C420	Spook Hill ADMP	0	0	(200)	(700)	(2,000)	(2,900)
Mesa/UMC	1,2	C442	East Mesa ADMP	(3,399)	(3,625)	(4,700)	(3,600)	(2,000)	(17,324)
Multiple	4	C450	Glendale/Peoria ADMP	0	0	(75)	(1,225)	(1,050)	(2,350)
Multiple	4	C470	White Tanks ADMP	(75)	(2,734)	(345)	(3,250)	(3,640)	(10,044)
Queen Creek	1	C480	Queen Creek ADMP	(200)	0	(500)	(2,350)	(2,000)	(5,050)
Multiple	1,2	C491	Higley ADMP	(50)	(175)	(500)	(1,125)	(2,500)	(4,350)
Multiple	5	C565	Durango ADMP	(125)	(1,500)	(3,450)	(3,000)	(2,000)	(10,075)
P.V./Phoenix	2	C580	ACDC ADMP	(3,014)	(3,585)	0	0	0	(6,599)
Phoenix/Glendale	4,5	C620	Maryvale ADMP	(5,390)	(6,370)	(2,240)	(5,060)	(3,380)	(22,440)
Phoenix	3	C625	Metro ADMP	0	0	0	0	0	0
Reimbursement Total				(\$15,073)	(\$20,507)	(\$19,910)	(\$21,560)	(\$19,820)	(\$96,870)

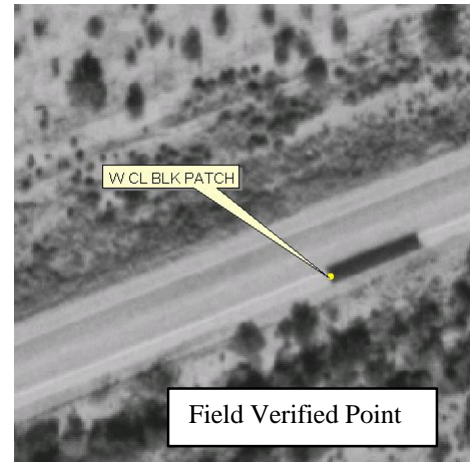


Ortho Aerial Photography

Supervisory District: All
Jurisdictions: Multiple

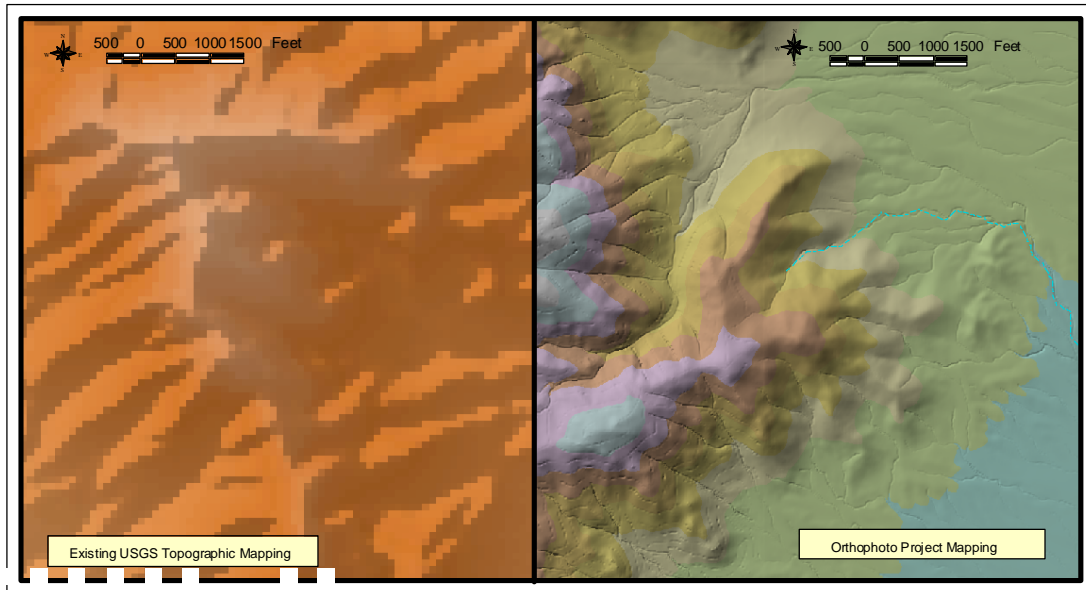
The District is acquiring digital aerial ortho-photography for the whole of Maricopa County. During previous years, the District has acquired semi-rectified aerial photography with a horizontal accuracy of +/- 25 feet in urban areas and +/- 300 feet in rural areas. This accuracy is insufficient for depicting floodplains or overlaying any other available data at the District. It has been determined that a better accuracy is necessary for the District's regulatory and technical responsibilities. An ortho-photography digital aerial contract was specified with horizontal accuracy of +/- 5 feet and vertical accuracy of +/- 5 feet. Aerial photographs of Maricopa County were taken during the months of December 2001 and January 2002. The ground control used for the project is the Geodetic Densification and Cadastral Survey generated by the Maricopa County Department of Transportation. Airborne GPS was used to control the project. A ground size pixel of 1 sq. foot was specified. When the project is completed it will be used for Zone A floodplain determinations, for accurately depicting features on the ground and for floodplain determination on the District web site.

FY 03:	\$164,000
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$164,000



Phone: 602-506-8612	Project Manager: Marta Dent	mld@mail.maricopa.gov
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PCN: 001.04.31



Multiple Townships/Ranges



Central Chandler Area Drainage System

Supervisory District: 1
Jurisdiction: Chandler

The City of Chandler's central area was developed prior to the implementation of required drainage standards. The City of Chandler previously developed and implemented a storm water master plan for the central area. The City updated the plan and has requested that the District cooperate and cost share the modification and enhancement of the existing facilities to provide a 100-year level of protection and a regional outfall for the system.

The City is the lead agency for design, rights of way acquisition, utility relocation, construction, construction management, and operation and maintenance of the system. The District's role is to participate in the consultant selection process, pre-construction meetings, provide technical assistance, and review the design and construction phases for the Project.

Five improvements have been identified that would help the City accomplish its goal of alleviating the flooding problems in the Chandler's central area. Total project cost is estimated at approximately \$ 12.2 million with the District's contribution capped at \$ 6.1 million.

Phase 1 – Ivanhoe and Erie Storm Drains - Complete	
Phase 2 – Arrowhead Pump Station and Force Main - Complete	FY 03: \$348,000
Phase 3 – Galveston Basin and Erie Drains – Design Complete	FY 04: \$3,010,000
Phase 3 – Constructions is scheduled for FY02/03.	FY 05: \$0
Phase 4 – Denver Basin Pump Station	FY 06: \$0
Phase 5 – Hartford Force Main and Pecos Road Drain	FY 07: \$0
	5-Yr CIP: \$3,358,000

Origination: FY 00/01 CIP Prioritization Request from the City of Chandler

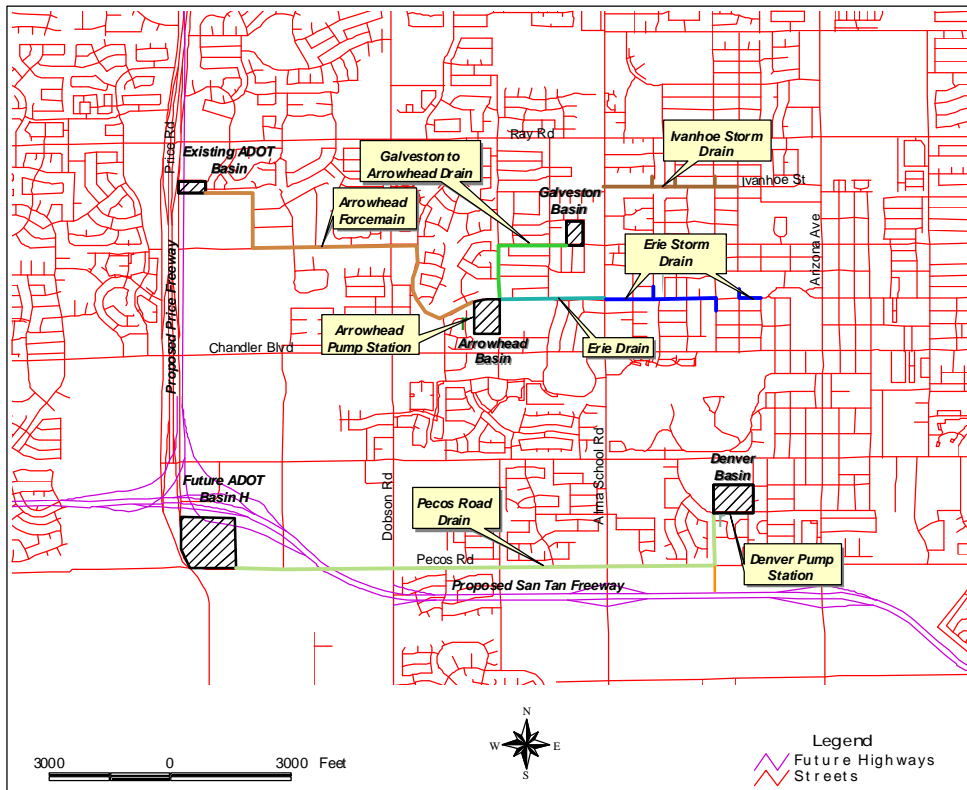
Authorization: FCD 2000A005

Phone: 602-506-4768

Project Manager:
Paul Stears, P.E.

pjs@mail.maricopa.gov

PCN: 022.01.31



T1S/R5E; T2S/R5E



Town of Guadalupe

Supervisory District: 5
Jurisdiction: Guadalupe

The project will provide a storm drain collection system and four retention basins located along the Highline Canal that will capture and convey the 10-year storm event within the Town and east of Avenida Del Yaqui. Runoff from within the Town results in flooding of low-lying houses and collects along the Highline Canal where it eventually overtops the canal and causes damage to downstream properties within Tempe. Three of the basins are located within the Town, and one along the east side of the canal in Tempe. The three basins within the Town will be landscaped and become Town parks after construction. The basin in Tempe, because of its small size and its depth will be landscaped and fenced. The project costs for design, right-of-way acquisition, utility relocation, environmental studies and construction of the project are estimated to be less than \$7 million. Construction of the project began in March 2002 and is scheduled for completion in February 2003. The Town is not able to contribute financially to the project but will own, operate and maintain the storm drain system and the four basins. Additionally, the Town will seek grants and other means to fund future street drainage improvements that will utilize the present project as an outfall.

FY 03:	\$1,952,000
FY 04:	\$0
FY 05:	\$375,000
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$2,327,000

Origination: Prioritization Process in January 1994

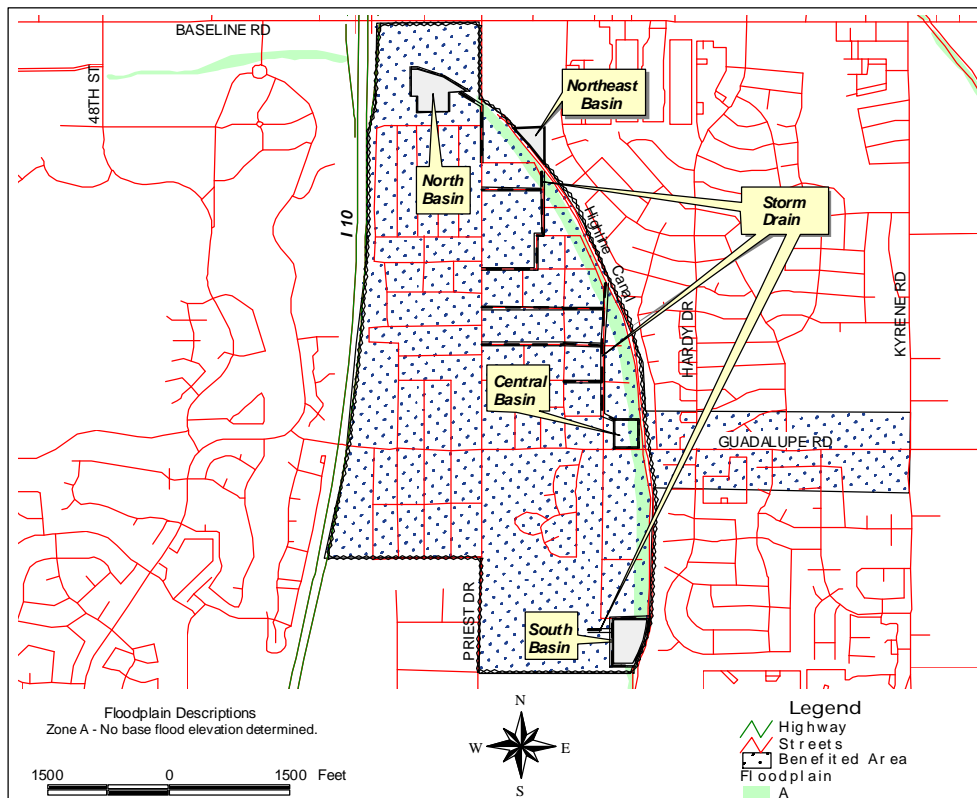
Authorization: FCD 99003, 99004, 99005

Phone: 602-506-4878

Project Manager:
Don Rerick, P.E.

djr@mail.maricopa.gov

PCN: 035.02.31



T1S R4E



Dam Assessment Project

Supervisory District: All
Jurisdictions: Multiple

The Flood Control District of Maricopa County (District) owns, operates and maintains 22 Flood Control Dams and is mandated by state and federal law to comply with dam safety regulations.. The Structures Assessment Program is intended to address issues related to urbanization and dam safety as well as to enhance and improve the District’s ongoing Dam Safety Program.

The Structures Assessment Program will be conducted in three Phases. Phase I Assessments primarily involve collection and review of records, field inspections of dams, risk assessments and the development of preliminary structural and non-structural alternatives to address dam safety and urbanization issues.

Phase I Assessments for seven District dams have been completed. Phase I Assessments have been initiated for five additional District dams under two ongoing contracts. Completion of Phase I studies for these five dams in this FY will involve development of structural and non-structural conceptual alternatives to address long-term issues of urbanization and aging infrastructure. Phase I Assessment are scheduled to be initiated for two additional dams in this FY.

FY 03:	\$1,477,000
FY 04:	\$1,100,000
FY 05:	\$1,150,000
FY 06:	\$1,500,000
FY 07:	\$5,000,000

Authorization: Year by year approval by BOD of CIP

5-Yr CIP: \$10,227,000

Origination: Identified need to address aging infrastructure and urbanization issues at 22 District owned dams
Presentation to FCAB by Joe Tram: November 1999

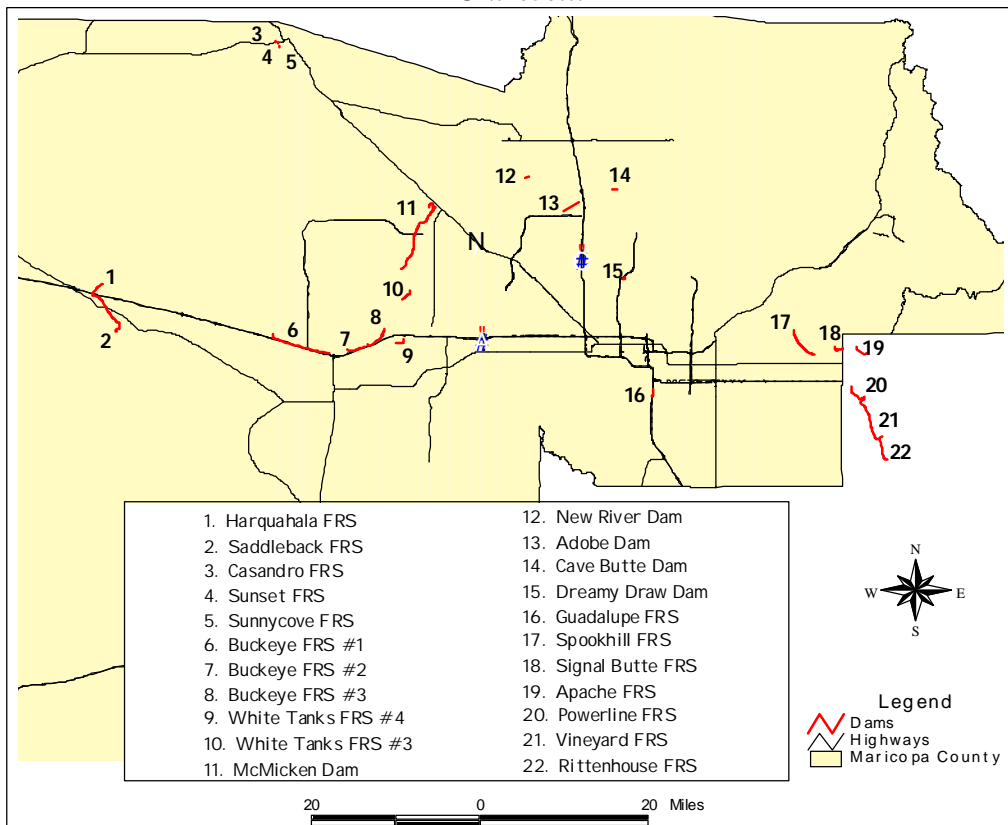
Phone: 602-506-8610

Project Manager:

Tom Renckly, P.E.

trr@mail.maricopa.gov

PCN: 050...



Multiple Townships/Ranges



Candidate Assessment Reports

Supervisory District: All
Jurisdictions: Multiple

Annually, Cities and Towns within Maricopa County submit requests to the District for inclusion of proposed projects into the District's Capital Improvement Program (CIP). The District has developed a process that includes evaluation and ranking of the candidate projects based upon specific evaluation criteria. A Candidate Assessment Report (CAR) is recommended when the review committee feels that the material submitted for the proposed project is insufficient to support the ranking or there is insufficient project detail to implement the project. The CAR studies are used to document the project requirements, benefits and costs. The studies are generally limited to an assessment of existing data. The study purpose is to confirm or expand on the information provided for the project prioritization and to document the requirements for implementation of the project.

Upon completion of the annual CIP prioritization, the list of projects submitted which require a CAR study is completed and the CAR studies initiated. If the CAR findings indicate that the project benefits or cost are substantially different than the project data originally submitted for the CIP prioritization, the project may be resubmitted for another evaluation and ranking by the CIP review committee. A CAR study has been completed for the Broadway/Rural area in Tempe during FY 2002-2003. Additional CARs will be identified with completion of the District's CIP Prioritization for FY 2003-2004 in December 2002.

FY 03:	\$120,000
FY 04:	\$100,000
FY 05:	\$100,000
FY 06:	\$100,000
FY 07:	\$100,000
5-Yr CIP:	\$520,000

Origination: FCD Staff Recommendations

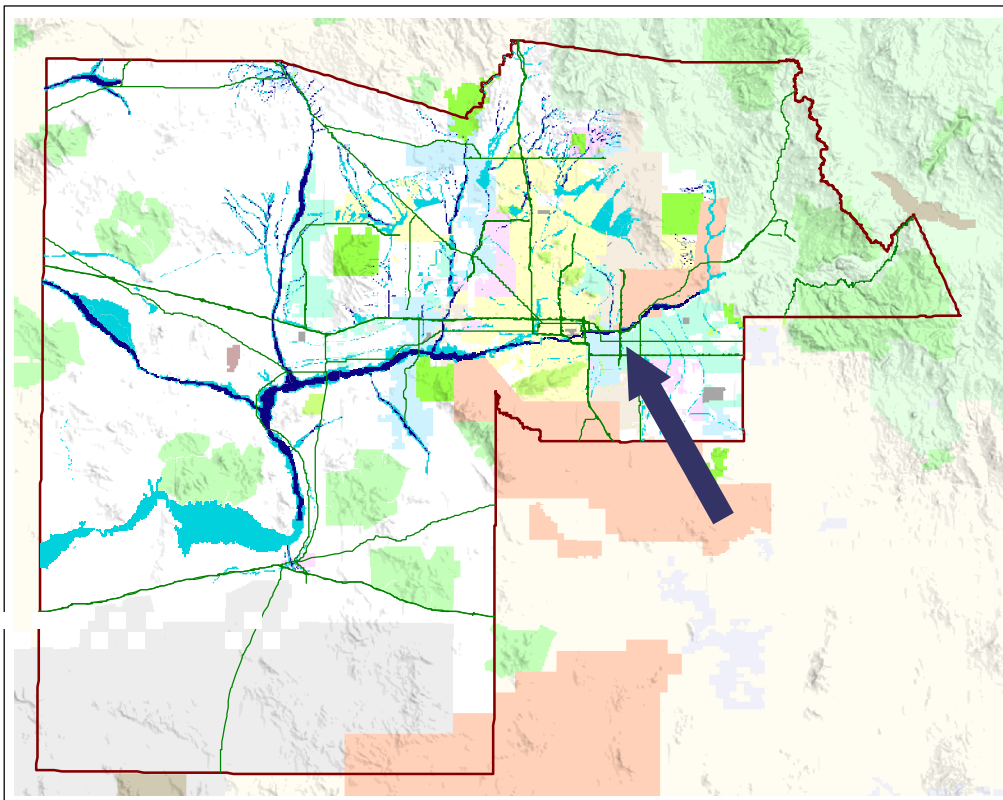
Authorization: 2002R001

Phone: 602-506-2961

Project Manager:
Russ Miracle, P.E.

rum@mail.maricopa.gov

PCN: 051...



Multiple Townships/Ranges



Sossaman - US 60 to Baseline

Supervisory District: 2
Jurisdiction: Mesa

The channel is located in east Mesa between Sossaman Road and Hawes Road and the Superstition Freeway (U.S. 60) to Baseline Road. The channel construction was completed in January 1999. The previous channel section did not have sufficient capacity to convey the 100-year peak discharge. The project improved the channel from U.S. 60 to Baseline Road. This project completed the Sossaman drainage system. The portions north of the Freeway and south of Baseline Road were previously constructed by the District. The landscaping element of this project has been designed and will be completed by Fall of 2002.

FY 03:	\$0*
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$0
*Funds will be included in CIP Budget Adjustment

Origination: Direction from Chief Engineer 1998

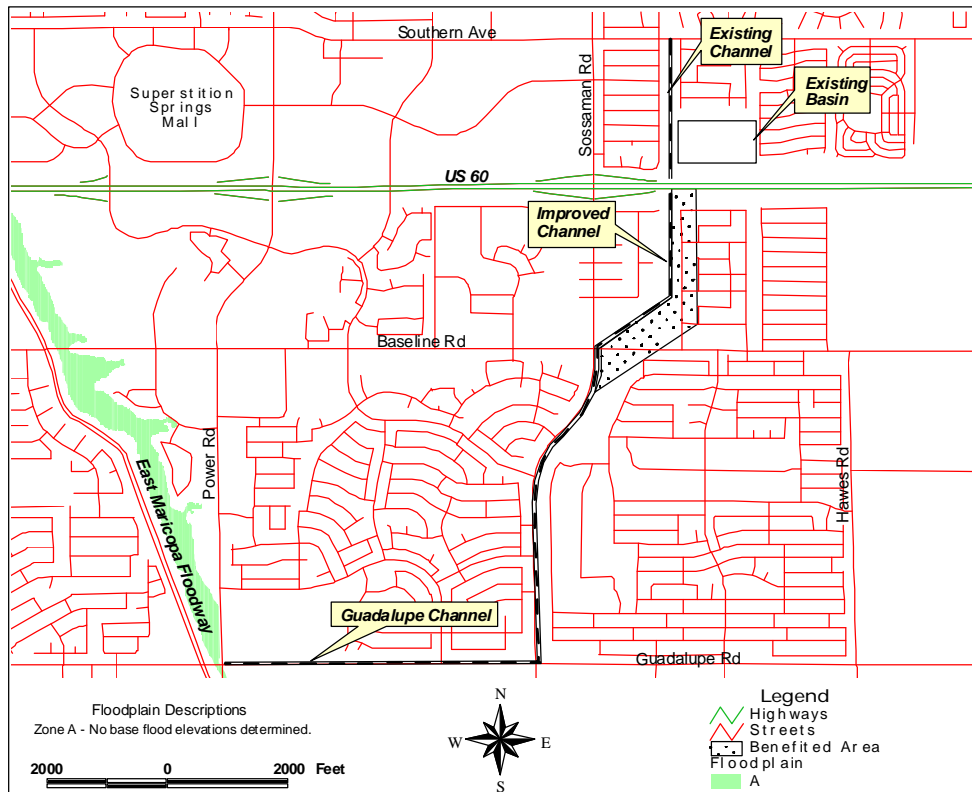
Authorization: FCD Resolution 91-04

Phone: 602-506-4768

Project Manager:
Paul Stears, P.E.

pjs@mail.maricopa.gov

PCN: 108.01.30



T1N R7E S32



43rd Avenue/Southern Avenue Basin

Supervisory District: 5
Jurisdiction: Phoenix

The 43rd Avenue and Southern Avenue Detention Basin was originally included as part of the South Phoenix Drainage Improvement Project. The detention basin has been designed by the Flood Control District. The detention basin site has been acquired by the Flood Control District, and is located at the southeast corner of 43rd Avenue and Southern Avenue. The basin is now an integral component of and will be constructed as a part of the Laveen Area Conveyance Channel, and construction will be cost-shared among the District, City of Phoenix, and MCDOT. The basin will have 5:1 side slopes and will be surfaced with grass for erosion control and aesthetic purposes. The City of Phoenix plans to use the basin as a park facility, and will own and maintain the basin upon completion of construction. The basin includes two inlet structures, an inlet spillway, an outlet spillway, and an outlet structure which will carry flood water to the existing 43rd Avenue storm drain, which outfalls to the Salt River.

FY 03:	\$2,440,000
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$2,440,000

Origination: South Phoenix Drainage Improvement Project Feasibility Study, 1994

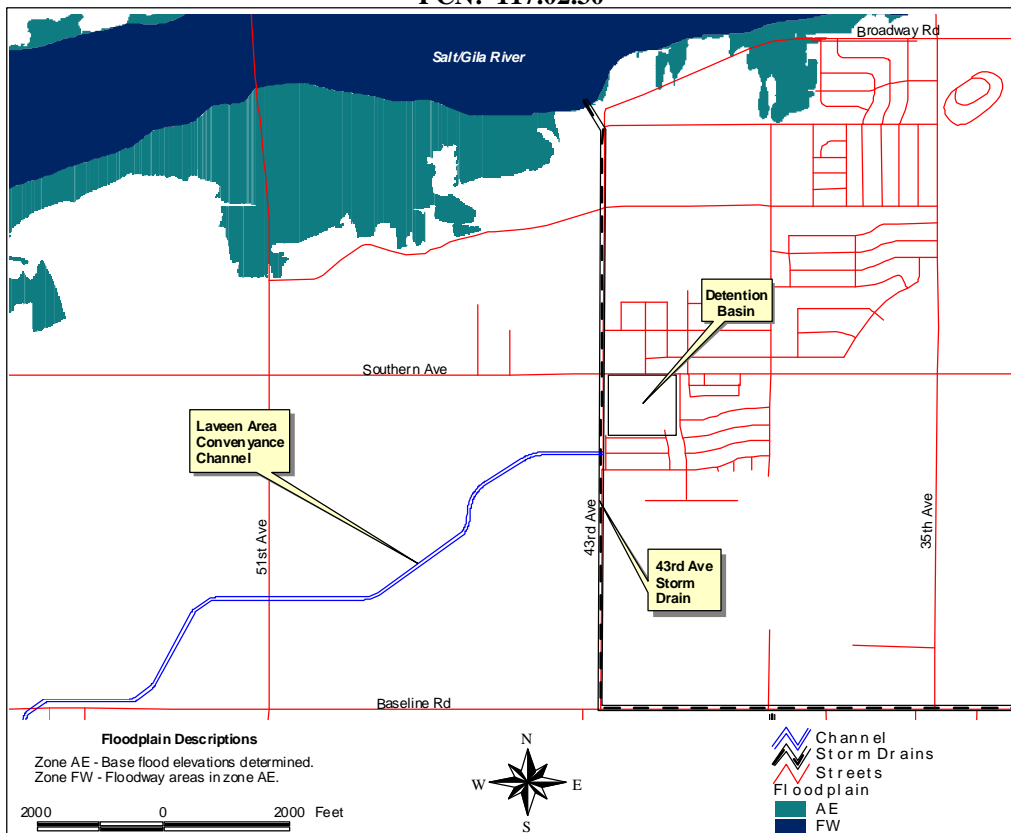
Authorization: FCD 2000A021

Phone: 602-506-2943

Project Manager:
Bobbie Ohler, P.E.

bao@mail.maricopa.gov

PCN: 117.02.30



T1N/R2E



Laveen Area Conveyance Channel

Supervisory District: 5
Jurisdiction: Phoenix

This project includes the design and construction of a conveyance channel capable of containing a 100-year flood event in the vicinity of the existing Maricopa Drain from 43rd Avenue to the Salt River for a length of approximately 5.8 miles. A flood detention basin at 43rd Avenue and Southern Avenue will mitigate peak flood flows getting to the conveyance channel. Based on previous evaluations of flood hazards within this area, significant floodwater from large storm events pond along the existing Maricopa Drain. This project will reduce the potential flood hazard.

This project consists of channel excavation, road crossings, drop structures, tiling and filling in the existing Maricopa Drain, and construction of an earthen low-flow channel. The channel and basin will be grass-lined to reduce and/or eliminate erosion and sediment transport and to provide landscaping and aesthetics. The peak discharge at the outfall of the channel for the 100-year storm event is estimated to be 2800 cfs. The existing Maricopa Drain has a much lower capacity and carries agricultural tailwater continually to the Gila River Indian Reservation, and some of this water outfalls to the Salt River. This water will be carried in the Project's low-flow channel, and outfall near the existing outfall location.

The IGA among the District, City of Phoenix, MCDOT, and SRP was approved by the Board of Directors on February 15, 2002. Construction for the Project is anticipated to commence in Spring 2003.

FY 03:	\$6,530,000
FY 04:	\$4,188,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$10,718,000

Origination: 2000 Prioritization Process, Requested by City of Phoenix

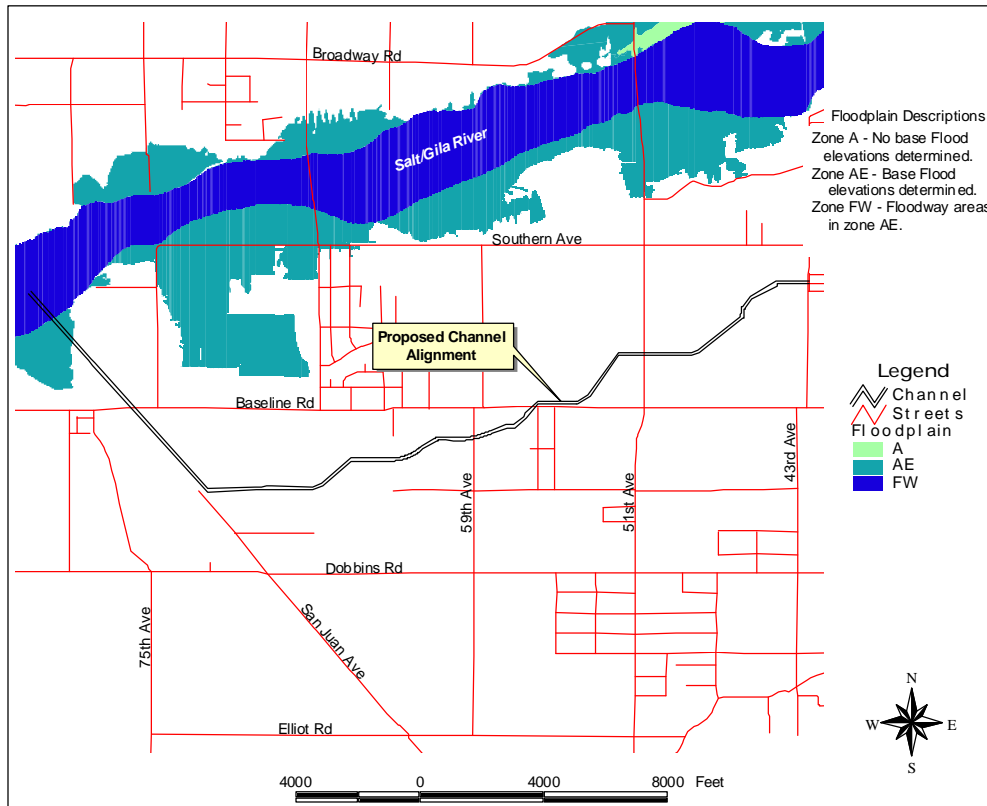
Authorization: FCD IGA 2000A021

Phone: 602-506-2943

Project Manager:
Bobbie Ohler, P.E.

bao@mail.maricopa.gov

PCN: 117.08.31



T1N/R1E, R1S/R1E, T1N/R2E, T1S/R2E



South Phoenix Two Basins

Supervisory District: 5
Jurisdiction: Phoenix

Residents in the South Phoenix area have been flooded during relatively minor storm events, including those considered to be less than 10-year storms. The South Phoenix Drainage Improvement Project will provide protection from a 100-year flood event to residences and developing farmland within the City of Phoenix. The project will be built in phases to maximize the potential for cost sharing with other agencies. The 100-year protection will be in place once all of the phases are completed. The proposed system is composed of underground pipes and detention basins that will help to minimize the project's cost. It is estimated that the project will cost \$25 million to design and build. Elements of the project will be constructed in phases through a joint partnership among the District, the City of Phoenix, and the Maricopa County Department of Transportation. The storm drains in Baseline Road (7th Street to 43rd Avenue) and in 43rd Avenue to the Salt River have been constructed. The South Phoenix Two Basins are located at the intersections of 43rd Avenue and Baseline Road, and 27th Avenue and South Mountain Avenue. Preliminary designs have been prepared for each of the detention basins. The Two Basins were submitted by the City of Phoenix in the 1999 Prioritization Process, and approved by the Prioritization Committee. The City of Phoenix does not have funding in their current bond program

for this project. The proposed schedule assumes that the City of Phoenix is able to appropriate funds for this project. The goal is for the District to contribute approximately 50% of the project cost of the South Phoenix Drainage Improvements. Depending on funding participation, some project elements may be deleted, downsized

FY 03:	\$0
FY 04:	\$0
FY 05:	\$200,000
FY 06:	\$2,500,000
FY 07:	\$2,500,000

5-Yr CIP: \$5,200,000

Origination: South Phoenix/Laveen Drainage Improvement Project (ADMP), July 1997

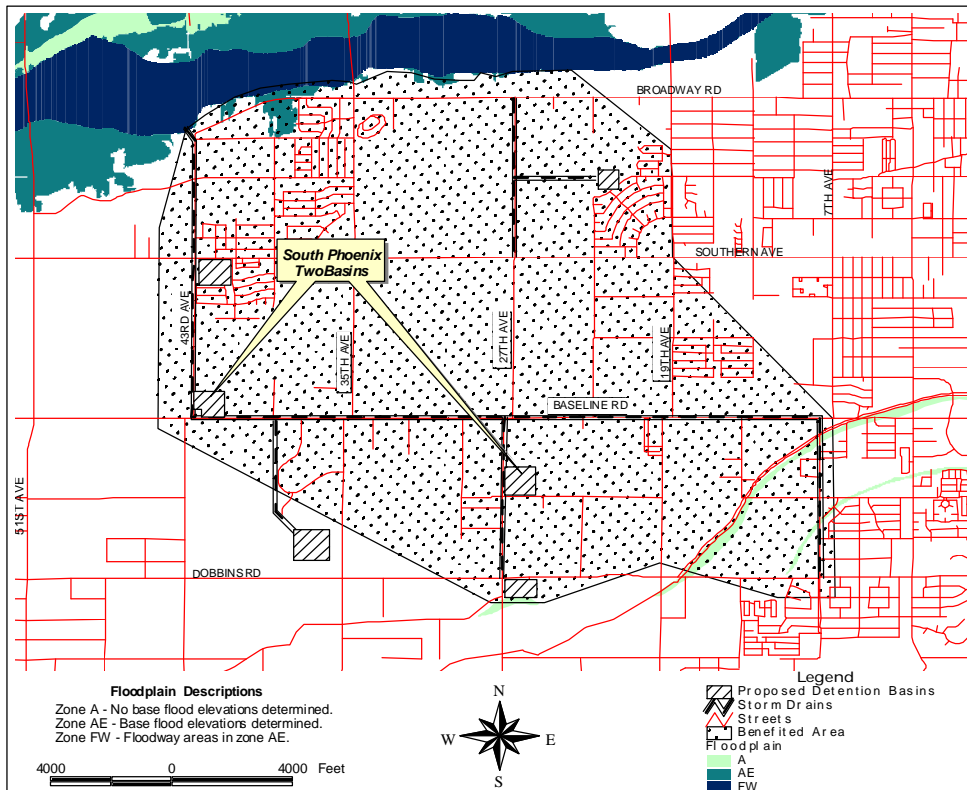
Authorization: to be pursued

Phone: 602-506-4771

Project Manager:
Scott Vogel, P.E.

csv@mail.maricopa.gov

PCN: 117.xx.xx



T1N R2E T1N R3E



EMF Capacity Mitigation

Supervisory District: 1
Jurisdictions: Gilbert, Mesa, Queen Creek

The East Maricopa Floodway (EMF) Capacity Mitigation Plan will increase the capacity of the Floodway to convey the 100-year flows originating within the East Mesa watershed. The plan includes off-line detention basins (see EMF Basins Design – Chandler Heights and Rittenhouse Basins, PCN 121.03.31) with channel improvements between Broadway Road and Main Street. The channel improvements, scheduled to be completed during FY 2002-03, will include increasing the bank height by raising the maintenance roads on both sides of the channel between Rittenhouse Road and Warner Road.

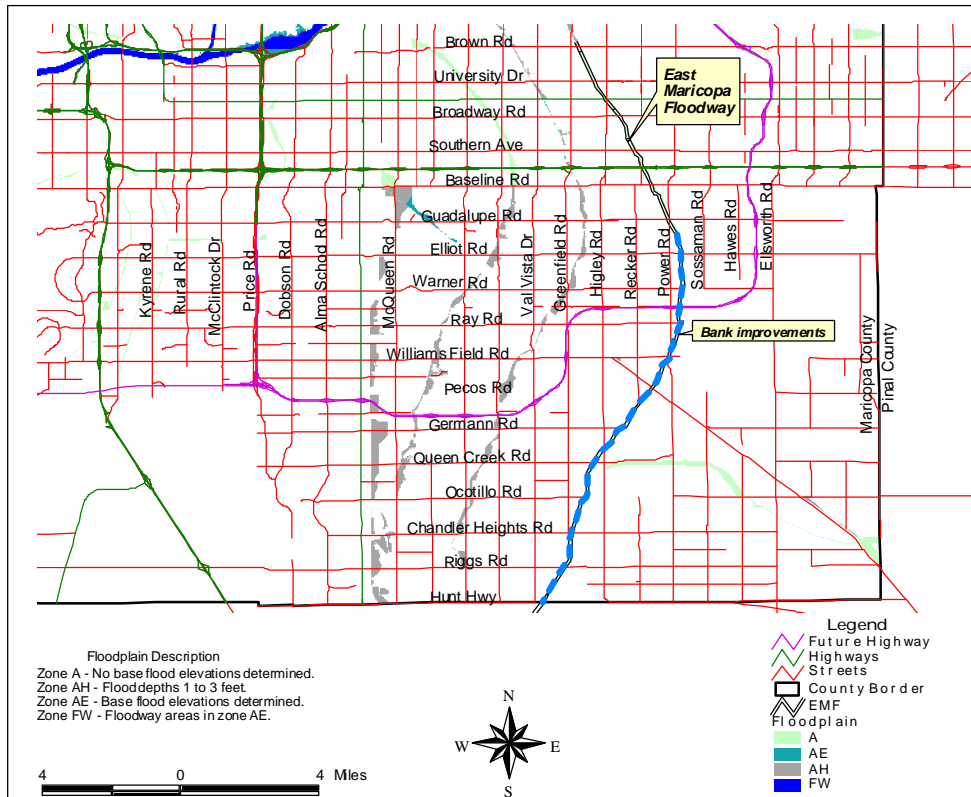
FY 03:	\$110,000
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$110,000

Authorization: FCD Resolution FCD 2001R003

Origination: East Maricopa Floodway Capacity Mitigation & Multi-Use Corridor Study (Aug. 2000)

Phone: 602-506-4768
Project Manager:
Paul Stears, P.E.
pjs@mail.maricopa.gov

PCN: 121.02.31



T1N/R6E, T1S/R6E, T1S/R7E, T2S/R6E



EMF Rittenhouse & Chandler Heights Basins

Supervisory District: 1
Jurisdictions: Gilbert

The District has completed the East Maricopa Floodway (EMF) Mitigation Study. The study identified several drainage and flooding problems along the EMF. The capacity of the EMF is at about 8,000 cfs. The existing condition 100-yr. is about 16,000 cfs. The study proposed to mitigate the problem by constructing two large off line retention basins. The Chandler Heights Basin is planned as an off line basin to mitigate flows from the Sanokai Wash, Queen Creek Wash, and the EMF. Rittenhouse Basin is also planned as an off line basin to mitigate flows from the Rittenhouse Channel and the EMF. The completed basins are planned to be used by the Town of Gilbert for recreation. The Town shall fund the recreation amenities.

The project consists of a pre-design, and a final design to include; preparation of construction plans, special provisions and engineer's estimates. The design cost is currently estimated at \$2 million. The preliminary construction cost is estimated to be \$26 million. The design of the project is scheduled to be complete in FY 02/03. Construction completion of both basin sites is scheduled for FY 08/09.

FY 03:	\$1,554,000
FY 04:	\$1,200,000
FY 05:	\$3,000,000
FY 06:	\$3,000,000
FY 07:	\$5,000,000

5-Yr CIP: \$15,754,000

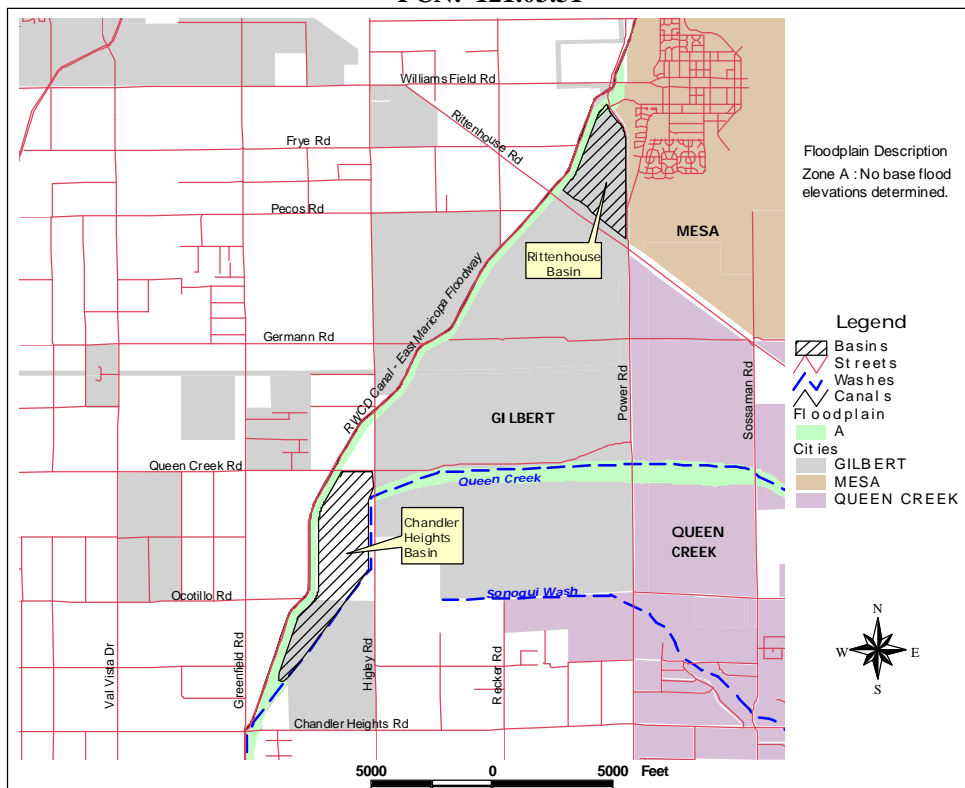
Origination: East Maricopa Floodway Capacity Mitigation and Multi-Use Corridor Study - Conceptual Design Alternatives Report, Dated August 2000 Authorization: FCD Resolution 1999R014

Phone: 602-506-4768

Project Manager:
Paul Stears, P.E.

pjs@mail.maricopa.gov

PCN: 121.03.31



T1S/R6E, T2S/R6E



Tempe/Mesa Habitat Mitigation

Supervisory District: 2
Jurisdictions: Tempe, Mesa

This project includes a study of the vegetation maintenance alternatives to maintain 100-year conveyance capacity of the Salt River Channel upstream of the existing Tempe Town Lake. Possible environmental and recreational amenities that could be incorporated into the reach of the Salt River will also be studied. Urban runoff from wastewater treatment facilities and urban storm water drainage accumulates in the Salt River Channel upstream of the Tempe Town Lake resulting in increased vegetation growth in the area. The increased vegetation could result in decreased capacity of the channel to convey flood flows. The study will also evaluate the potential for incorporating multi-use activities into the Salt River Channel at this location.

FY 03:	\$100,000
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$100,000

Origination: FCD Staff Recommendations

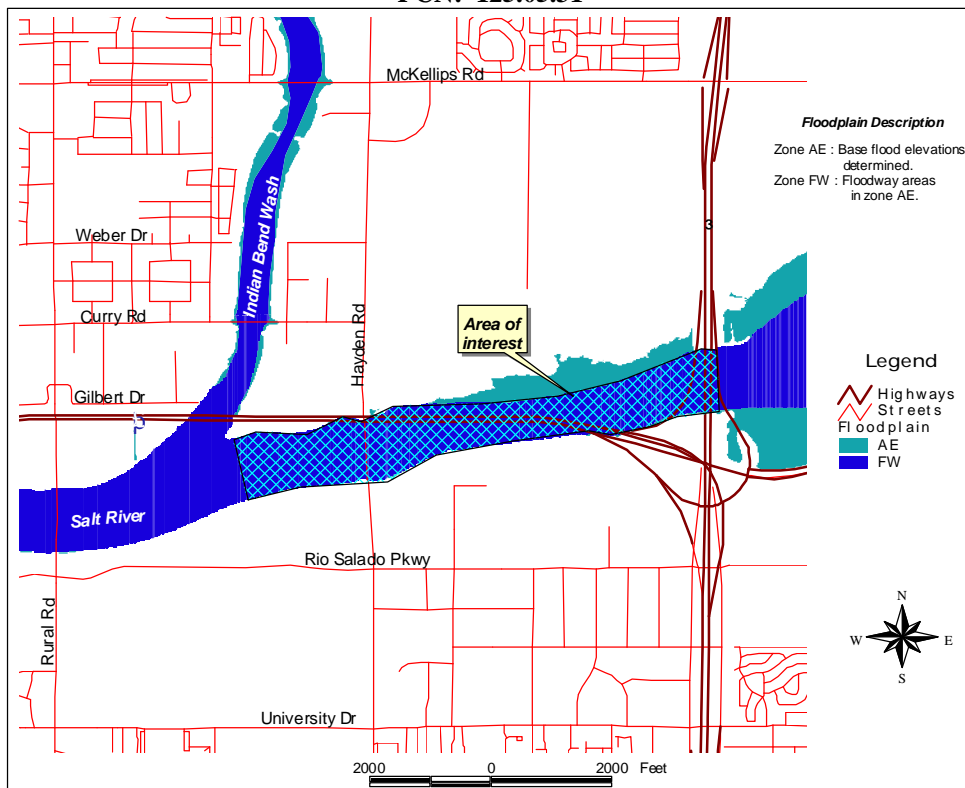
Authorization: n/a

Phone: 602-506-8111

Project Manager:
Felicia Terry, P.E.

fet@mail.maricopa.gov

PCN: 125.05.31



T5N/R4E, T5N/R5E



Arlington Valley Floodplain Acquisition

Supervisory District: 5
 Jurisdiction: Arlington School District (Maricopa County)

The Arlington Floodplain Acquisition project consists of purchasing 17.34 acres of property and buildings that are currently occupied by the Arlington School. The property lies within the 100-year floodway of the Gila River. The school has been subject to repeated flood losses over the past 25 years and is susceptible to flooding in the future.

The Flood Control District, the Arlington School District and the State Facilities Board have agreed that the Flood Control District will purchase the school property for \$1,000,000. The Arlington School District is currently building a new elementary school in a location outside the floodplain. The new school should be ready for occupancy by August 2003. At the time when the old school has been vacated, the Flood Control District will close escrow and take possession of the school and property. Once the property is purchased, it is anticipated that the school buildings will be demolished and the property converted to an acceptable use within the floodplain.

FY 03:	\$35,000
FY 04:	\$1,200,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$1,235,000

Origination: FCD Staff Recommendations

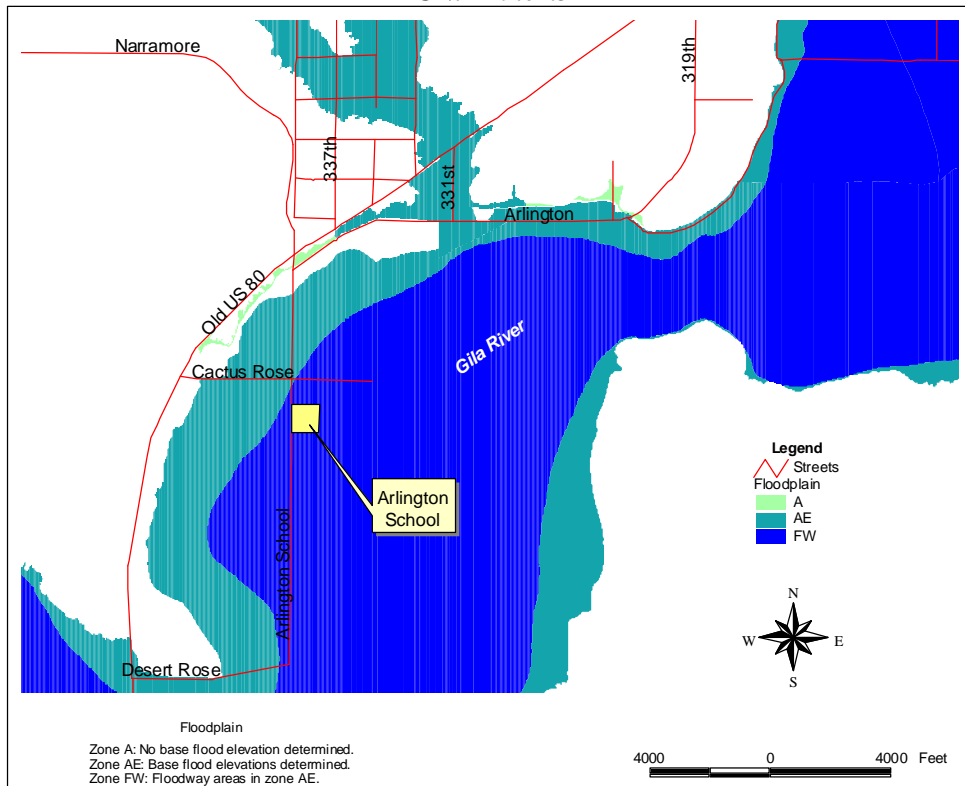
Authorization: 2001R007

Phone: 602-506-2929

Project Manager:
Valerie Swick, E.I.T.

vas@mail.maricopa.gov

PCN: 129.01.31



T2S R5W



Buckeye/Sun Valley ADMP

Supervisory District: 4
Jurisdiction: Buckeye, Surprise, Maricopa County

This planning project provides professional engineering services necessary for developing an area drainage master plan to determine guidelines and identify solutions for stormwater management and to mitigate flooding for the Buckeye/Sun Valley area. The study will include an analysis of approximately 280 square miles of watershed for the eastern contributing watershed for the Hassayampa River from approximately the Morristown Highway (SR74) south to the Gila River and from the White Tanks Mountains west to the Hassayampa River. The mapping for the study will be completed under a separate contract. The 2-foot mapping for this project will include approximately 109 square miles at a cost of \$790,000. The mapping area consists of the area north to the Buckeye Flood Retarding Structures, south to the Gila River, east to Dean Road, and west to the Hassayampa River. The mapping should be completed around April of 2003. The ADMS should start around the beginning of 2003. The study will identify drainage problems, update the existing hydrology due to development and new hydrologic methodology, and develop cost effective solutions for a storm water collection system and will further identify potential outfall alternatives.

The study should take approximately two years to complete. The design and construction phase will involve the implementation of solutions to flooding that are identified in the planning and conceptual design phases. Future CIP budgets may include projects identified in the study.

FY 03:	\$670,000
FY 04:	\$700,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$1,370,000

Origination: FCD Staff Recommendation – ongoing Planning Program

Authorization: FCD Resolution 2001R005

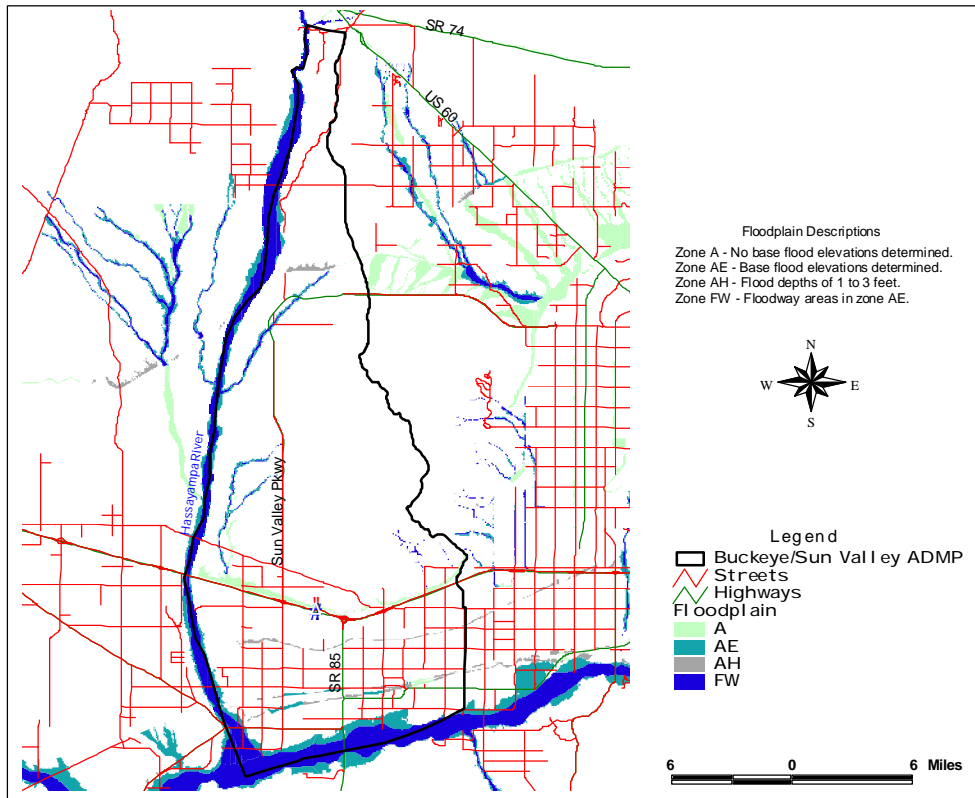
Phone: 602-506-2929

Project Manager:

vas@mail.maricopa.gov

Valerie Swick, E.I.T.

PCN: 211.01.31



T1S-T6N, R3W-R5W



Buckeye FRS 1,2,3

Supervisory District: 5
Jurisdiction: Buckeye, Maricopa County

The District has identified a need and an opportunity to acquire project lands in fee for three flood control dams owned and operated by the District: Buckeye FRS#1, Buckeye FRS#2 and Buckeye FRS#3. Project land rights for the management of the three Buckeye Flood Retarding Structures (FRSs) are currently in the form of flowage easements. Considerable experience on existing District flood control projects has clearly demonstrated that the District’s ability to properly manage existing flood control projects is greatly enhanced when project property rights are held in fee. Most of the land for the Buckeye FRSs is held in fee by the Arizona Department of Transportation (ADOT). ADOT has expressed a desire to sell this land in fee to the District. It is anticipated that the existing Flood Control District flowage easements on the properties will have a substantially impact on the appraised value of the property. An amended resolution to authorize this land acquisition will be prepared for Board approval this FY.

FY 03:	\$400,000
FY 04:	\$400,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$800,000

Origination: FCD Staff Recommendation – ongoing Planning Program

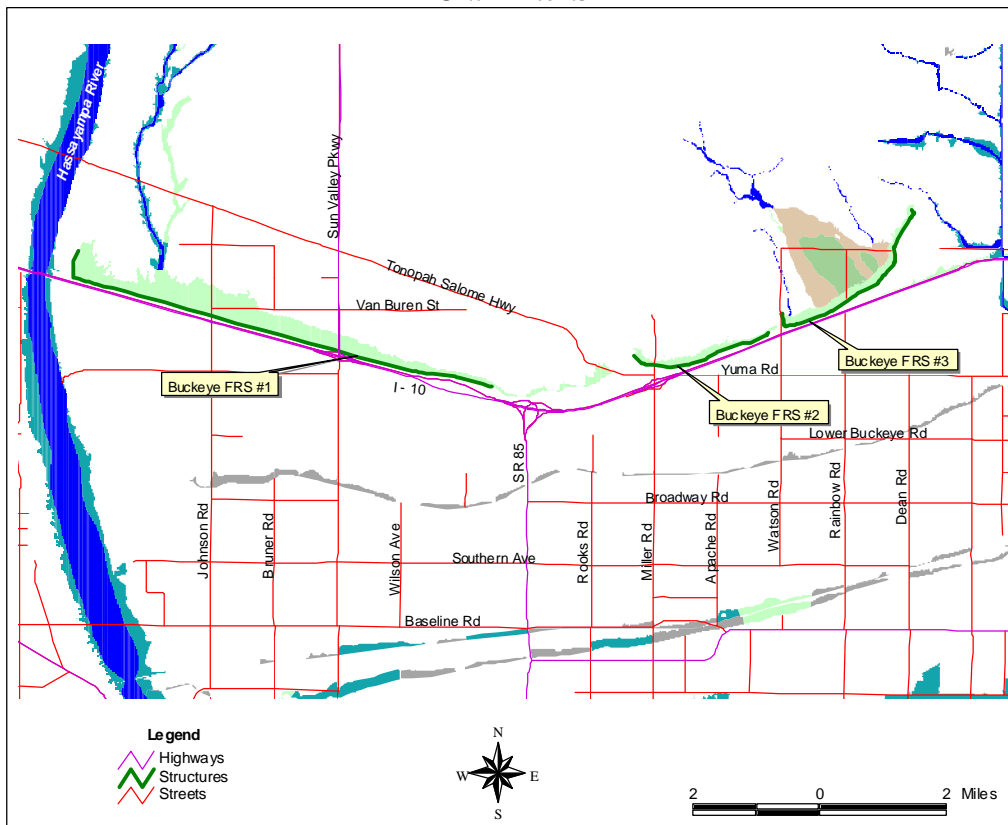
Authorization: FCD 72-59A

Phone: 602-506-8610

Project Manager:
Tom Renckly, P.E.

trr@mail.maricopa.gov

PCN: 211.02.31



T1N, R5W; T1N, R4W; T1N, R3W; T2N, R3W



Wittmann ADMP Update

Supervisory District: 4
 Jurisdictions: Buckeye, Peoria, Surprise, Maricopa County

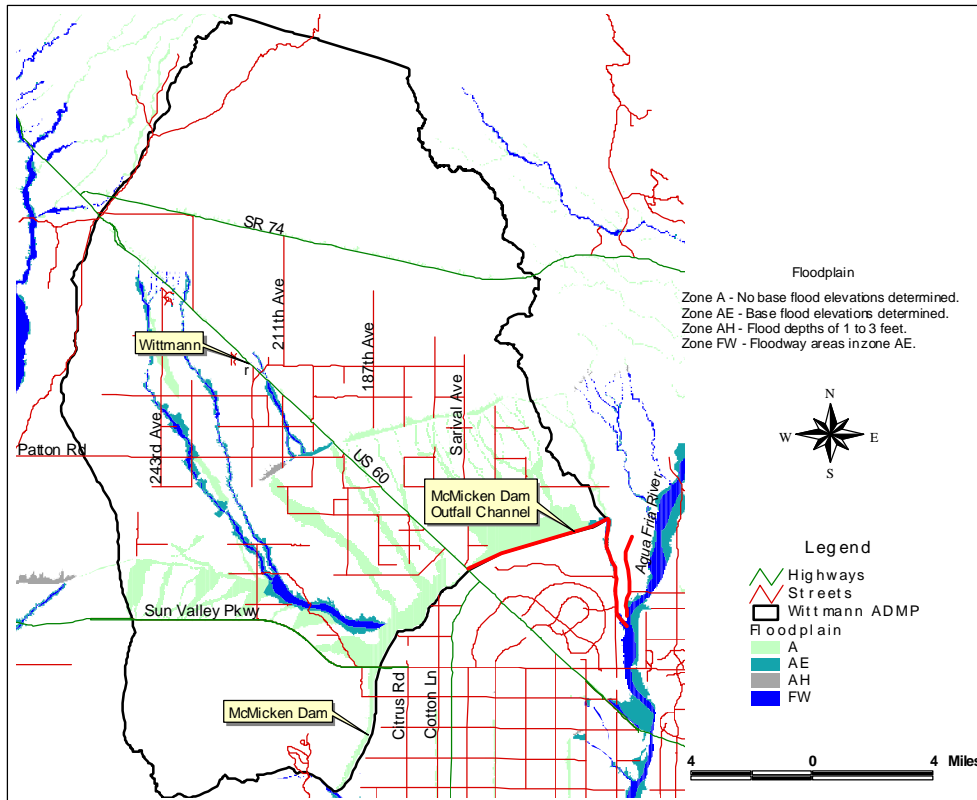
Current and projected District CIP expenditures for the Wittmann ADMP Update can be divided into several parts: drainage mapping, structures study, planning study that will lay the groundwork for further flood control activities, and design and construction phase that will address flooding issues. The planning study consists of providing professional engineering services necessary for developing an area drainage master plan to determine guidelines for storm water management and mitigate flooding within the Wittmann area. The study will include analysis of approximately 300 plus square miles of watershed. The mapping and study will identify drainage problems, update the existing hydrology due to development and new hydrologic methodology, and develop cost effective solutions for a storm water collection and disposal system and will further identify potential outfall alternatives. The planning study is budgeted at \$ 1.9 million dollars and is included in the CIP Budget for FY 01/02, FY 02/03, and FY 03/04. The design and construction phase will involve the implementation of solutions to flooding that are identified once the planning and conceptual design phases have been completed, and remedial actions have been specified.

FY 03:	\$1,000,000
FY 04:	\$488,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$1,488,000

Origination: FCD Staff Recommendation – ongoing Planning Program Authorization: FCD Resolution FCD 2001R005

Phone: 602-506-0867 Project Manager: **Kelli Sertich, C.F.M.**
kas@mail.maricopa.gov

PCN: 344.01.31



T3N/R2W-R4W, T4N/R1W,R3W, T6N/R1W-R4W, T7N/R2W-R3W



Aguila Mitigation

Supervisory District: 4
Jurisdiction: Aguila, Maricopa County

This project is being managed by the Flood Control District of Maricopa County (District) in conjunction with the Federal Emergency Management Agency (FEMA) to purchase and relocate approximately ten (10) to twenty (20) residences located in the floodplain in the Town of Aguila, Arizona. The town is located in the extreme northwest corner of Maricopa County about 25 miles west of Wickenburg, Arizona along U.S. Highway 60/70.

On November 21, 2000 a severe rainstorm flooded the area, which caused extensive damage to homes and placed lives in danger. As a result of the flooding, the District and FEMA conducted a study of the flooded areas that surrounded the town, and on the Grass Wash area, which runs through Aguila. An assessment of the damage was made and then the decision to acquire the property and relocate the residents.

The District submitted an application to FEMA asking for a grant to acquire and relocate the residents. The Aguila Hazard Mitigation Grant was approved and FEMA awarded the District the sum of \$ 815,000. The estimated cost of the project is \$977,300; the District pledged the additional money or about 10% so that the project could be completed.

Acquisition, relocation, and then demolition of the homes in the floodway will be a 2-year project scheduled to be completed in late 2002. After the residences have been demolished and the area cleared, the land will then be preserved as open space and could someday be utilized as a community park.

FY 03:	\$0
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$0

Origination: FEMA Disaster

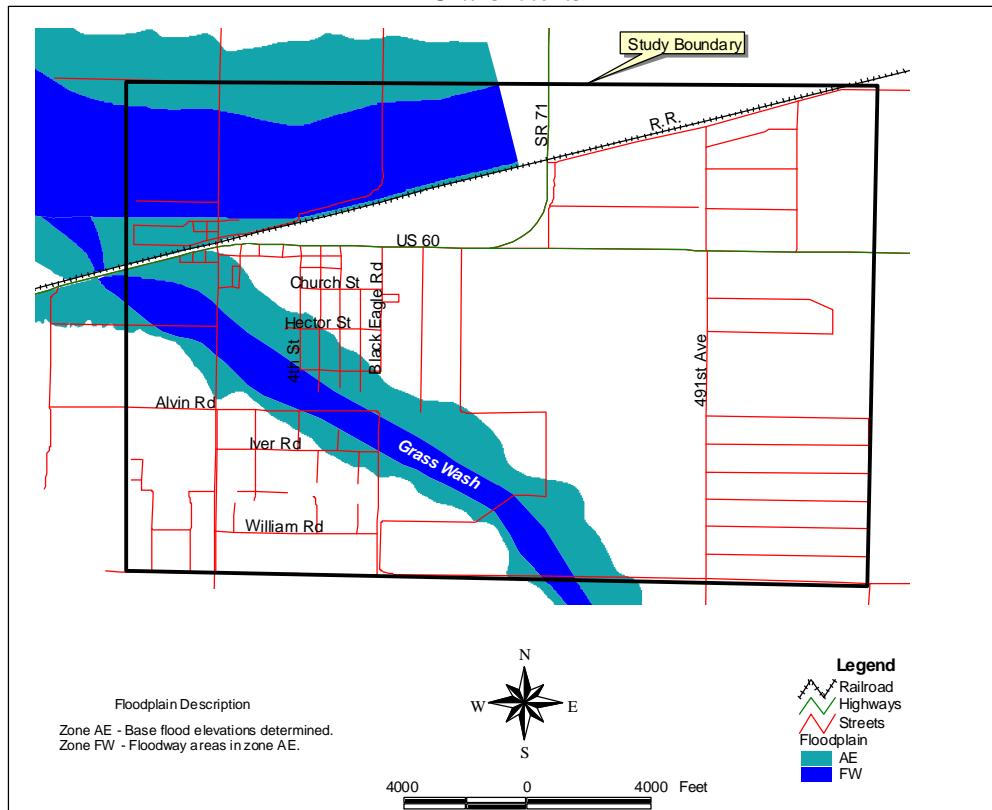
Authorization: FCD 2000R017

Phone: 602-506-4744

Project Manager:
Gene Arnold

ega@mail.maricopa.gov

PCN: 345.01.31



T7N, R8-10W



Aguila ADMP

Supervisory District: 4
Jurisdiction: Aguila, Maricopa County

The purpose of the ADMP is to develop cost-effective solutions and development guidelines to prevent flooding damage similar to the floods that occurred in this area in September 1997 and again in October 2000. The ADMP limits include Yavapai County boundary limits to the north, approximately Effus Ranch Road alignment to the east, the Vulture Mountains to the south and La Paz County boundary limits to the west. The study will be conducted in two phases. The first phase will identify the drainage problems, develop the hydrology and hydraulics analysis, complete floodplain delineations, and develop preliminary alternatives to be recommended for consideration in Phase II. This phase will be completed around March 2003 at a cost of \$425,000. If it is determined that there are cost-effective alternatives, Phase II will be authorized. The total budget for the ADMP excluding the floodplain delineation is \$300,000.

FY 03:	\$150,000
FY 04:	\$150,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$300,000

Origination: FCD Staff Recommendation – ongoing Planning Program

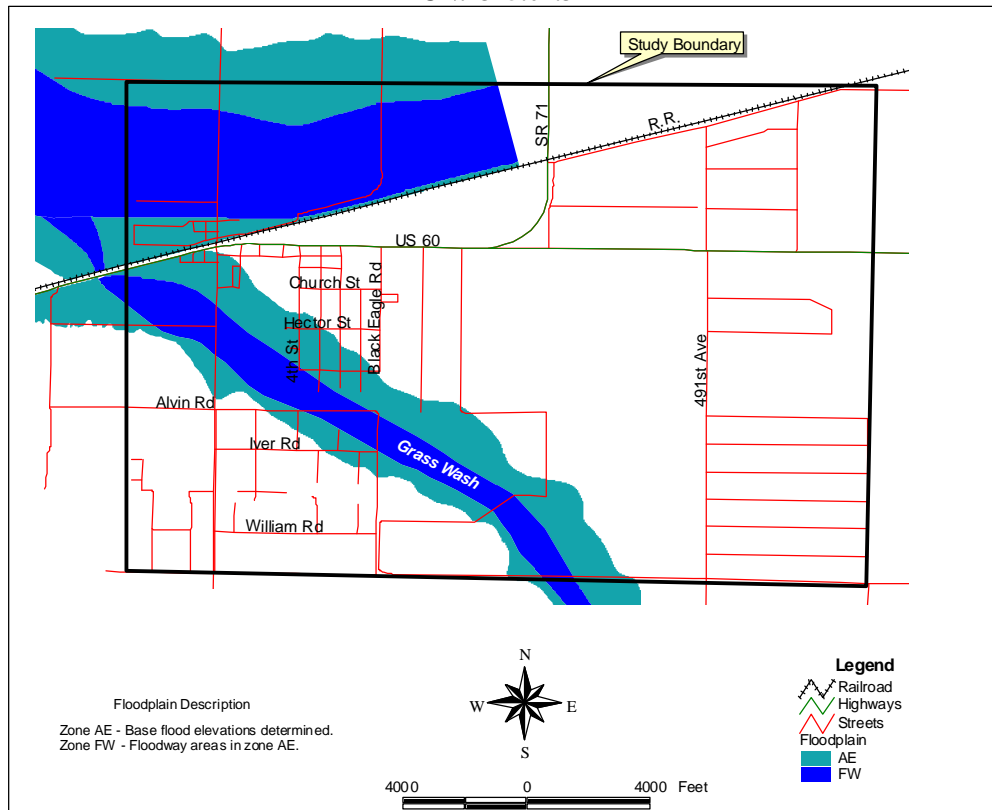
Authorization: FCD 2001R005

Phone: 602-506-2929

Project Manager:
Valerie Swick, E.I.T.

vas@mail.maricopa.gov

PCN: 345.02.31



T6N-T7N; R7W-R9W



Aguila Floodplain Delineation

Supervisory District: 4
Jurisdiction: Aguila, Maricopa County

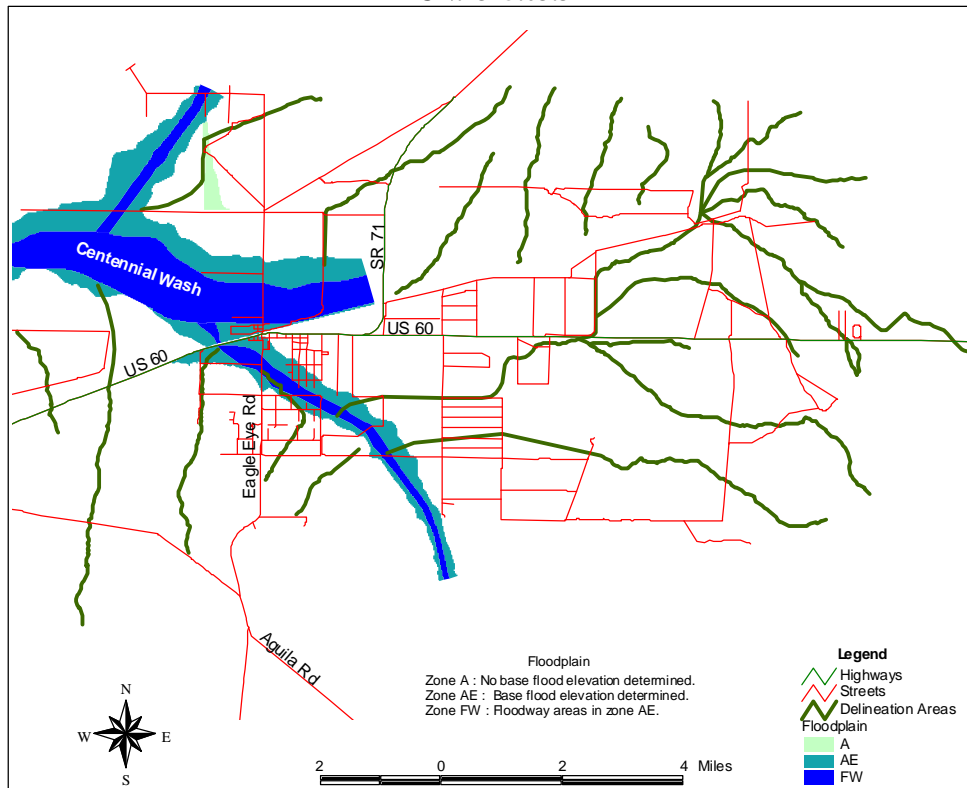
The purpose of the floodplain delineation is to identify approximate and detailed floodplains within the Aguila ADMP to reflect the flood damage that occurred in this area in September 1997 and again in October 2000. The study will analysis in detail the flooding that occurred in the town area and re-delineate the current floodplains if necessary. The floodplain delineations are anticipated to be submitted to FEMA in early 2003. The cost of the Phase I delineation including some optional tasks is \$407,000. If Phase II is authorized, there is an optional task budgeted at \$17,000 to complete a detailed HEC-RAS analysis for the Aguila Farm Channel. The total budget for the floodplain delineations including the optional tasks is \$424,000.

FY 03:	\$245,000
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$245,000

Origination: FCD Staff Recommendations – Included in Phase I of the Aguila ADMP Authorization: FCD 2001R005

Phone: 602-506-2929 Project Manager: **Valerie Swick, E.I.T.** vas@mail.maricopa.gov

PCN: 345.03.31



T6N-T7N; R7W-R9W



Skunk Creek Low Flow Channel

Supervisory District: 4
Jurisdiction: Peoria

This Project will provide a low flow channel (LFC) within the limits of Skunk Creek from 75th Avenue to the New River confluence. Additionally, a LFC shall be constructed in the Arizona Canal Diversion Channel (ACDC) from 73rd Avenue to the confluence with Skunk Creek. This Project will be undertaken with participation from the City of Peoria. The low flow channel will: (1) provide for better conveyance of nuisance flows in the Skunk Creek, (2) reduce operation and maintenance costs, (3) reduce vector control problems while protecting habitat.

The District will be the lead agency for design, construction, and construction management of the project. The City of Peoria will assume ownership and the operation and maintenance for the completed Project.

The project is currently under design. Design to be complete in FY 02/03 and construction completed in FY03/04.

FY 03:	\$40,000
FY 04:	\$720,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$760,000

Origination: FCD Staff Recommendation

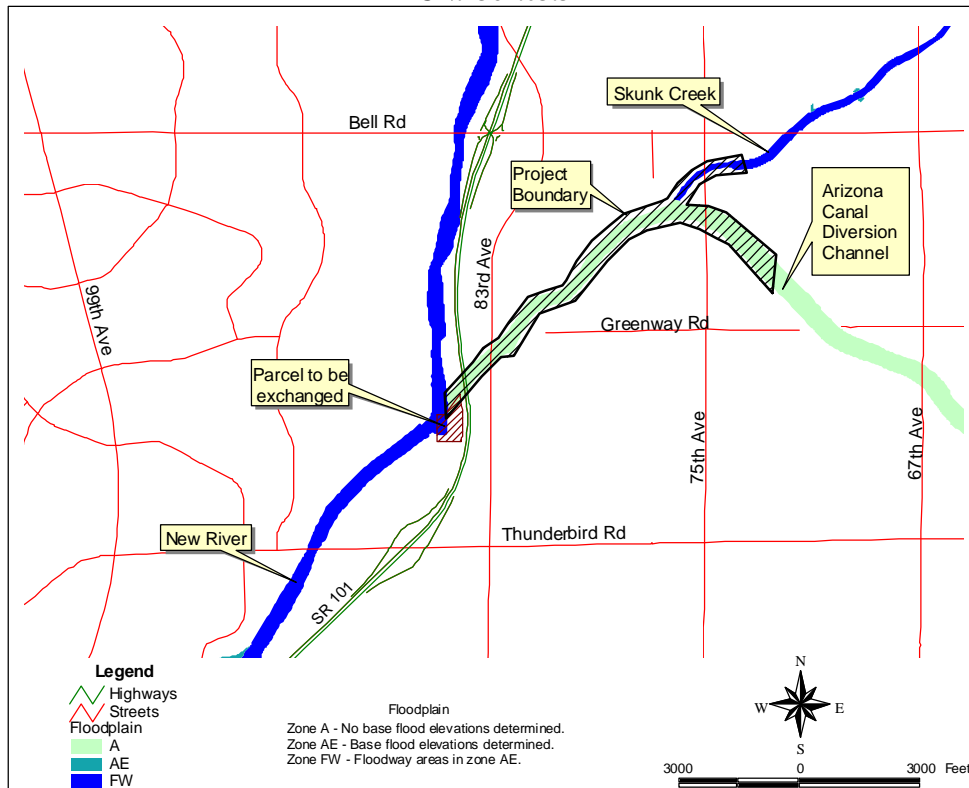
Authorization: FCD 2000A019

Phone: 602-506-4768

Project Manager:
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pjs@mail.maricopa.gov

PCN: 362.03.31



T3N/R1E



New River (Grand Ave - Skunk Creek)

Supervisory District: 4
Jurisdiction: Peoria

The Middle New River Watercourse Master Plan (MNRWCMP) study undertaken by the District identified projects to improve the conveyance capacity and provide bank protection along the New River. One of the recommended project areas is the reach of New River from Grand Avenue north to the Outer Loop 101 and Skunk Creek confluence with New River. Recommended improvements include channelization and bank protection for approximately 1.5 miles of New River. The City of Peoria will be a project partner. The City and the District are property owners along and within the New River alignment. The northerly portion of this project reach, along the west bank would include improvements along the Desert Harbor development that would be accomplished by the City. Further analysis of the recommendations and development of intergovernmental agreements are necessary before the project can move forward. This is the last reach of the New River that has not been improved consistent with the Corps of Engineers' Phoenix, Arizona and Vicinity including New River project. The project was requested by the City of Peoria and approved for inclusion in the District's CIP.

FY 03:	\$200,000
FY 04:	\$1,350,000
FY 05:	\$6,000,000
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$7,550,000

Origination: Project requested by the City of Peoria through the Prioritization Process in July 2001.

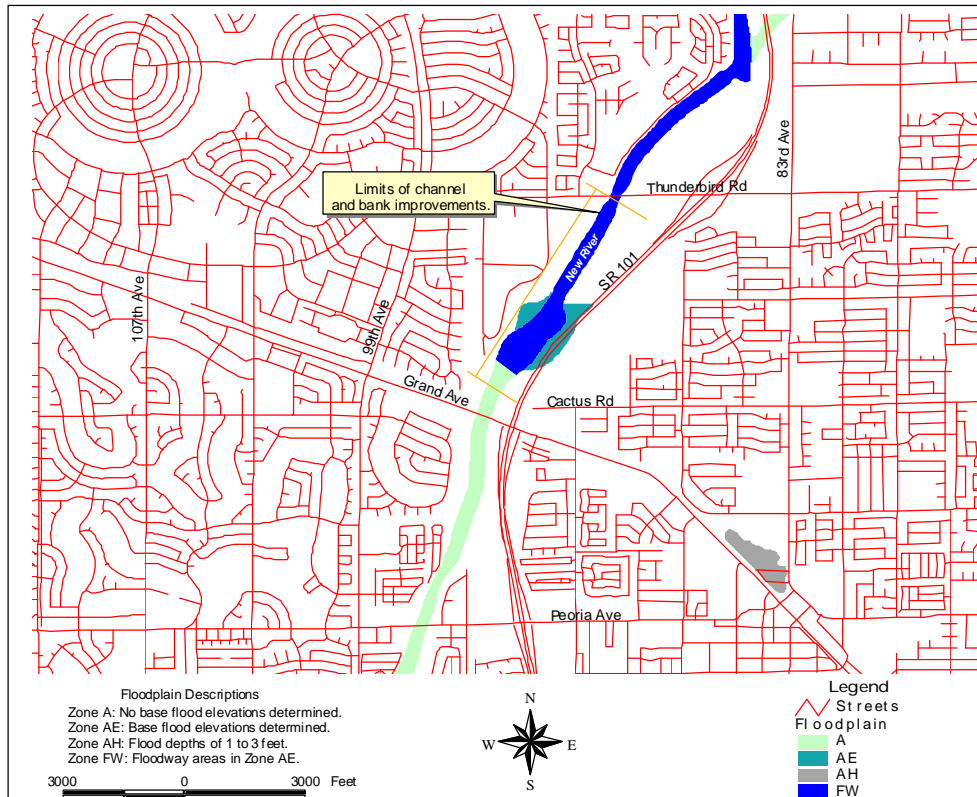
Authorization: FCD 2000R013

Phone: 602-506-4878

Project Manager:
Don Rerick, P.E.

djr@mail.maricopa.gov

PCN: 400.06.31



T3N/R1E



83rd Ave. Grade Control Structure/Bell Park

Supervisory District: 4
Partners: Glendale, Peoria

The Middle New River Watercourse Master Plan (MNRWCMP) study undertaken by the District identified projects to improve the conveyance capacity and provide bank protection along the New River. One of the recommended projects is channel improvements near the 83rd Avenue New River crossing. The constructed improvement would be a grade control structure and channelization near the 83rd Avenue crossing. Glendale had already identified the need for a bridged crossing at 83rd Avenue and New River. The need for channel improvements associated with the bridge, and the MNRWCMP recommendation for channel improvements, resulted in a project partnership between the District and the City of Peoria and the City of Glendale. Intergovernmental Agreements were developed among these three partners to identify project responsibilities for the design and construction of the bridge, grade control structure and channel improvements. The City of Glendale will provide for design and construction of the bridge and the grade control structure and associated channel improvements. The District will provide construction management services for the project. All three partners will share in the total project costs with the City of Glendale funding 50% of the costs, and the City of Peoria and the District funding 25% each of the costs.

Construction of the '83rd Avenue Bridge & Channelization at New River is in progress.
A Notice to Proceed was given February 23, 2002 on a seven-month construction contract. The project will be complete during the first half of October 2002.

FY 03:	\$145,000
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$145,000

Origination: FY 00/01 Prioritization Procedure – requested by the City of Glendale

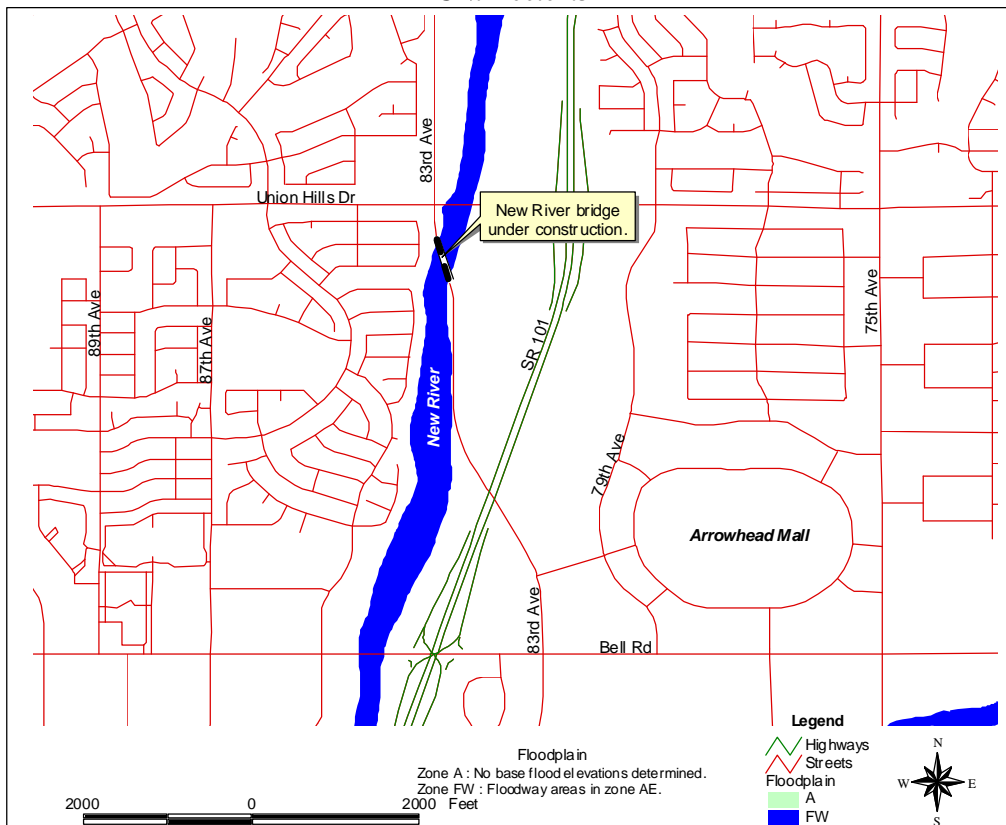
Authorization: FCD 2000R013

Phone: 602-506-8613

Project Manager:
Mike Towers

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PCN: 400.07.31





New River (Paradise Shores)

Supervisory District: 4
Jurisdiction: Peoria

The Paradise Shores / New River Bank Protection Project provides bank stabilization and armoring along the west bank of New River immediately adjacent to the Paradise Shores Subdivision. Under existing conditions, the segment of the west bank adjacent to the subdivision is the only portion of the west bank unprotected between Bell Road and the New River Confluence with Skunk Creek. The improvements will consist of minor channel excavation and armoring of the west channel slope. This project was identified in the Middle New River Watercourse Master Plan. The project was requested by the City of Peoria and approved for inclusion in the District's CIP. Peoria will cost share the project with the District. This project will be designed and constructed as a part of the New River (Grand Ave. to Skunk Creek) project, PCN 400.06.31.

FY 03:	\$0
FY 04:	\$300,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$300,000

Origination: Project requested by the City of Peoria through the Prioritization Process in July 2001.

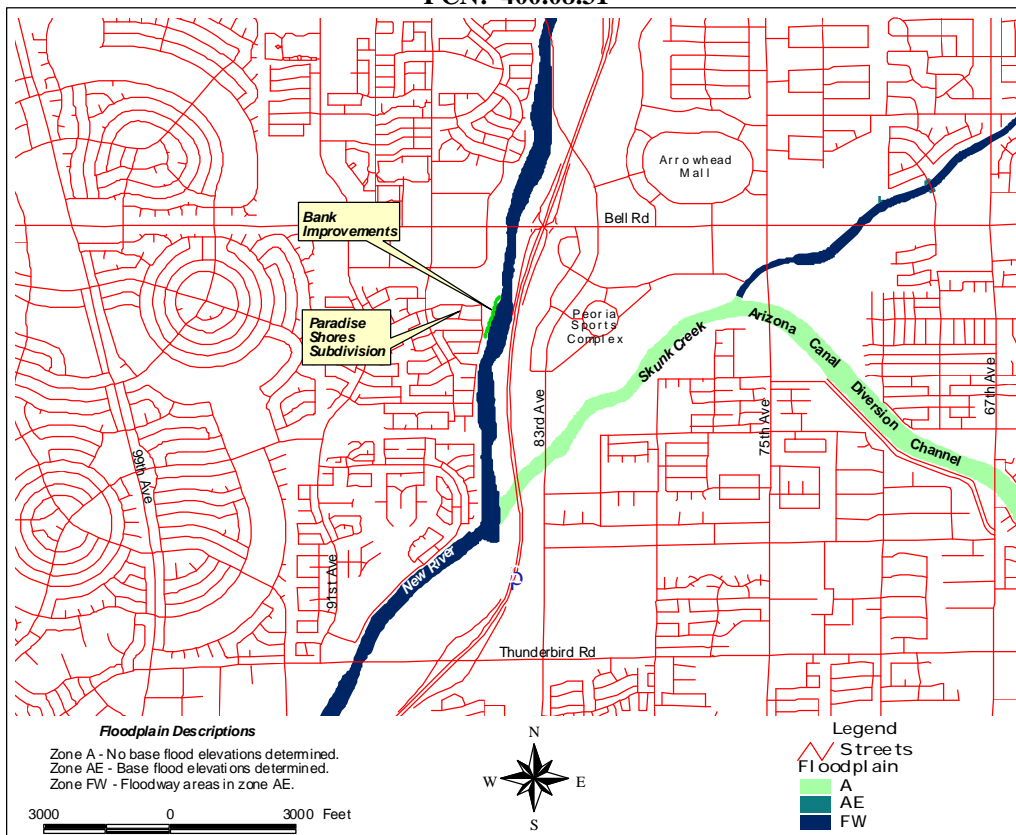
Authorization: FCD 2000R013

Phone: 602-506-4878

Project Manager:
Don Rerick, P.E.

djr@mail.maricopa.gov

PCN: 400.08.31



T3N/R1E



Spook Hill ADMP

Supervisory District: 2
Jurisdiction: Mesa, Maricopa County

The purpose of the Spook Hill Area Drainage Master Plan is to update and expand the existing Spook Hill Area Drainage Master Study conducted in 1987. Since the 1987 study, much of the community has been developed, additional drainage infrastructure now exists, and changes have been made in the watershed. The goals of the project are to identify current area flooding problems and produce a recommended alternative to resolve the current flooding problems. The Spook Hill area in the East Mesa currently does not have the flood control and drainage facilities in place to handle its regional flood problems. The approximate watershed area is 16 square miles. A preferred alternative has been chosen and will be presented to the City and County officials for its adoption.

FY 03:	\$0
FY 04:	\$0
FY 05:	\$400,000
FY 06:	\$1,400,000
FY 07:	\$4,000,000
5-Yr CIP:	\$5,800,000

Origination: FY 99/00 CIP Prioritization Procedure

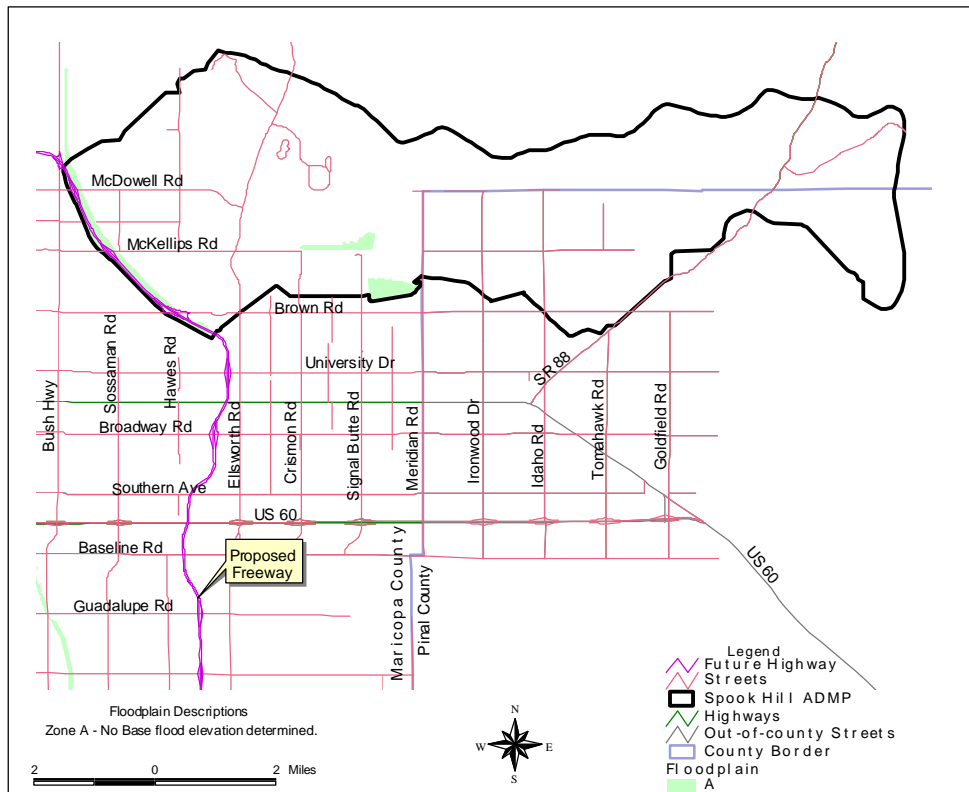
Authorization: FCD Resolution 2002R008

Phone: 602-506-4519

Project Manager:
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afa@mail.maricopa.gov

PCN: 420.01.31



T2N/R7E, T1N/R7E, T1N/R8E, T2N/R8E



Elliot Basin and Channel

Supervisory District: 1 & 2
Jurisdiction: Mesa

The Elliot Road Channel is a project that is identified in the East Mesa Area Drainage Master Plan. The East Mesa ADMP identifies drainage problems and develops solutions for a storm water collection and basin system for eastern Maricopa County including portions of the City of Mesa, the Town of Gilbert, the Town of Queen Creek, and unincorporated Maricopa County. The Elliot Road Channel extends along Elliot Road from the 104th Street alignment to the East Maricopa Floodway. A large diameter storm drain collects storm flow from the Siphon Draw Wash and extends west along Elliot Road, day-lighting west of Ellsworth Road in six natural washes. The Elliot Road Detention Basins, located along Elliot Road near Crismon Road, have been deleted from this project. The future Phase 1B will extend from Ellsworth Road to the East Maricopa Floodway, and may include basins to attenuate peak flows to reduce the size and cost of required downstream improvements, and meet the capacity restrictions of the East Maricopa Floodway. The City of Mesa may be interested in creating a joint use for the channel and basins as a park. The budget numbers below are for the current Phase 1A project, for which construction will be completed in 2002.

FY 03:	\$1,533,000
FY 04:	\$0
FY 05:	\$400,000
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$1,933,000

Origination: East Mesa Area Drainage Master Plan, Recommended Design Report,
Dated July 1998

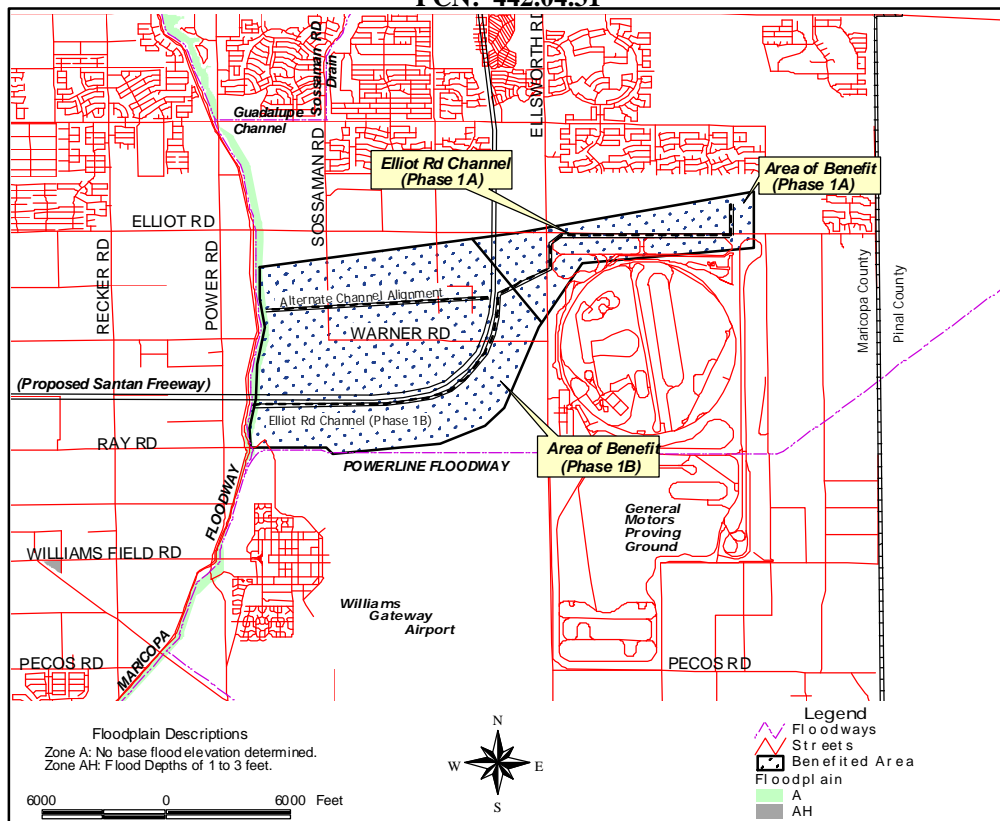
Authorization: FCD 1999A027

Phone: 602-506-4771

Project Manager:
Scott Vogel, P.E.

csv@mail.maricopa.gov

PCN: 442.04.31



T1S R7E



Hawes Road Channel

Supervisory District: 2
Jurisdiction: Mesa

The Hawes Road Drainage Improvements Project (Project) is a project that is identified in the East Mesa Area Master Drainage Master Plan (ADMP). The East Mesa ADMP identifies drainage problems and develops solutions for eastern Maricopa County, which includes portions of Mesa, Gilbert, and Queen Creek. The Project will resolve many of the existing drainage problems along Hawes Road within the City of Mesa.

The Project will consist of channel and culvert improvements from Apache Trail to Emelita Avenue, which is approximately 0.4 miles north of Southern Avenue. The length of the Project is approximately 1.1 miles and will tie into an existing improved gunite lined channel on the west side of Hawes Road.

The estimated cost for the Project is \$3,000,000 which, includes the, design, rights-of way acquisition, utility relocations, construction, and construction management. The City will fund non-flood control features. The City will assume ownership and the operation and maintenance for the completed Project.

The Project will be cost shared by the City of Mesa and the District as follows: The City shall contribute 35% of the Project cost and the District shall contribute 65% of the Project cost. The design has begun. The Project design is scheduled for completion in FY02/03. The construction is to be complete in FY03/04.

FY 03:	\$2,000,000
FY 04:	\$1,000,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$3,000,000

Origination: East Mesa ADMP (March 1998)

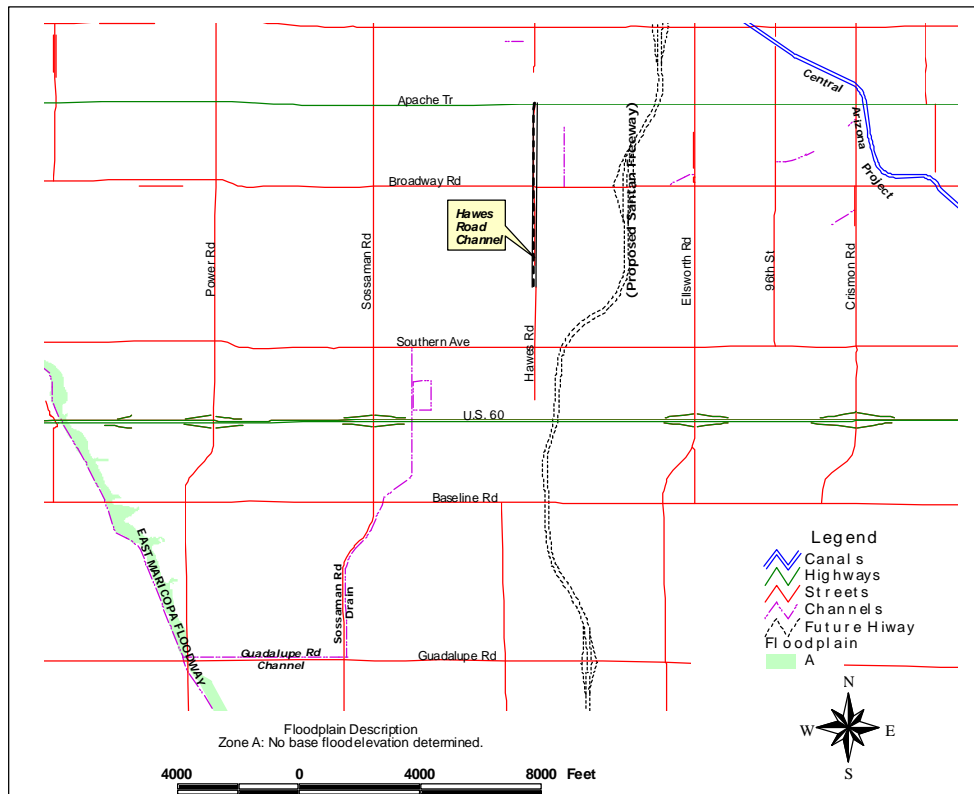
Authorization: FCD 2000A018

Phone: 602-506-4768

Project Manager:
Paul Stears, P.E.

pjs@mail.maricopa.gov

PCN: 442.05.30



T1N R7E



Southern Avenue Channel

Supervisory District: 2
Jurisdiction: Mesa

Mesa, the Maricopa County Department of Transportation (MCDOT), and the District have reported severe flooding along several major transportation corridors and near the CAP overchutes at their points of discharge. The District recently constructed detention basins downstream of the CAP overchutes to capture the flows and reduce the peak flow in the existing washes and channels.

The outfall channels and / or washes from the basins along the CAP Canal drain into a channel along Hawes Road. This channel splits into two channels: a channel along Southern Avenue from Hawes Road to 78th Street, and a channel along Hawes Road from Southern Avenue to the Superstition Freeway. The channel along Southern Avenue is an integral part of the drainage system in this area. The existing channel does not have adequate capacity to convey the 100-year flow. Thus, the channel was reconstructed as a box culvert. The City of Mesa has acquired rights-of-way, completed design, relocated utilities and has completed construction of this project. The District will cost share 50% of the project and Mesa will own and operate the completed project.

FY 03:	\$1,046,000
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$1,046,000

Origination: Requested by City of Mesa through the Prioritization Process for FY 99/00

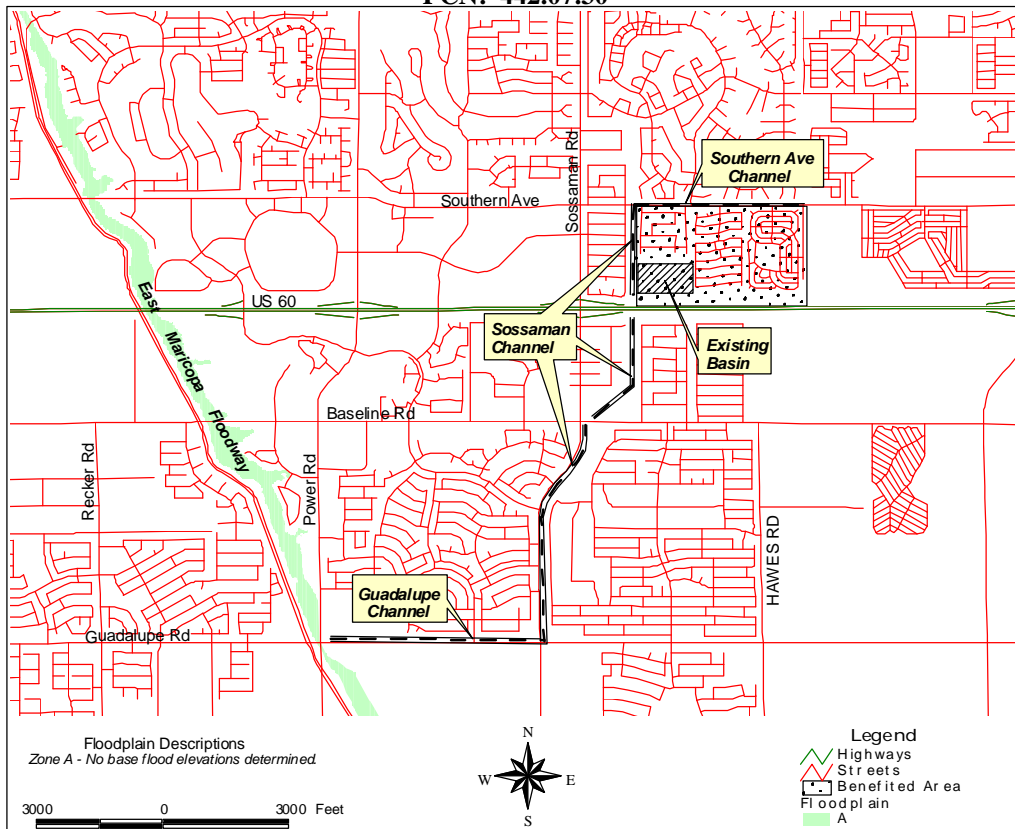
Authorization: FCD 99010

Phone: 602-506-4878

Project Manager:
Don Rerick, P.E.

djr@mail.maricopa.gov

PCN: 442.07.30



T1N R6E



Ellsworth Channel

Supervisory District: 1
Jurisdiction: Mesa

This project was prioritized in the East Mesa Area Drainage Master Plan, and includes construction of a flood control channel to mitigate existing and future flooding along Ellsworth Road, adjacent to General Motors Proving Ground and Williams Gateway Airport. Flooding occurs frequently at five dip crossings on the existing roadway. The channel project will be constructed in conjunction with MCDOT's upgrades to Ellsworth Road from Germann Road to 1/3 mile south of Guadalupe Road, and will provide drainage for the road and capacity for the 100-year flood.

On June 21st, 2000, the Board of Directors approved IGA FCD 2000A002, among the District, MCDOT, and Mesa, to design and construct the Ellsworth Road Channel Project. The design for the channel included an alternatives analysis, and the recommended alternative is as shown on the map below. The design for the channel will include reconstruction of 1/2 mile of the existing Powerline Floodway. The design for the roadway upgrades and channel is scheduled to be complete by March 2003 and the Project is scheduled to begin construction by Summer 2003. The cost for the channel project is estimated to be \$9,000,000, with the District's share equal to 50 percent or \$4,500,000.

FY 03:	\$3,044,000
FY 04:	\$0
FY 05:	\$890,000
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$3,934,000

Origination: East Mesa ADMP, 1998

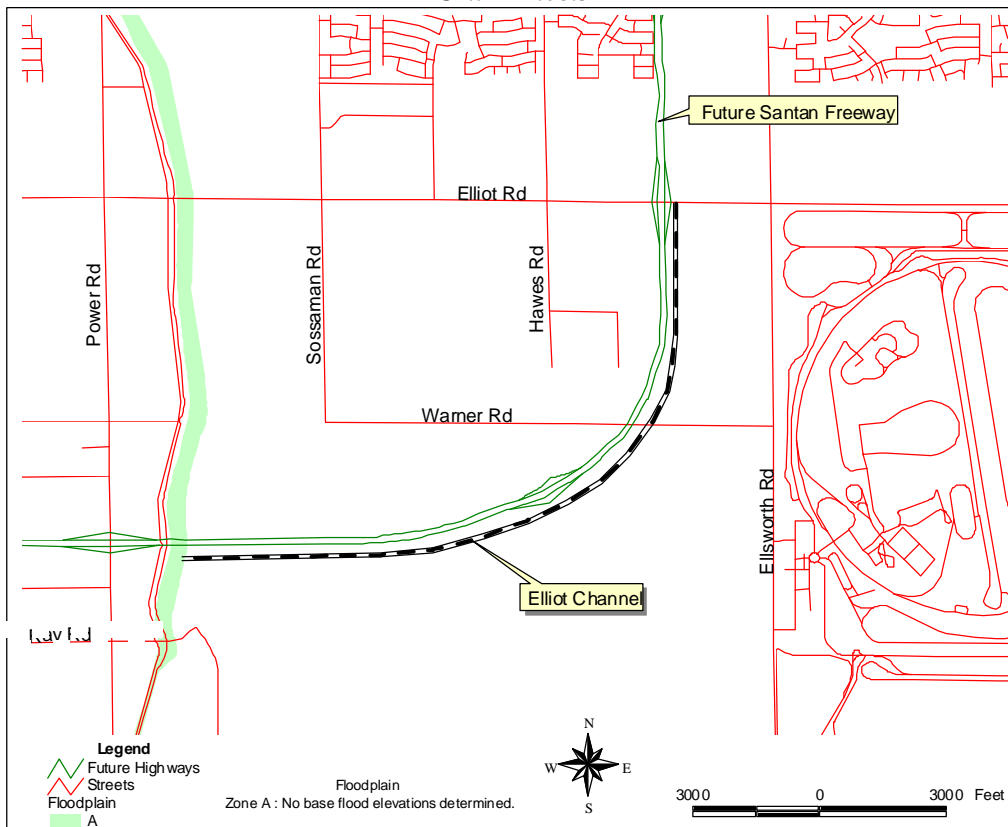
Authorization: FCD 2000A002

Phone: 602-506-2943

Project Manager:
Bobbie Ohler, P.E.

bao@mail.maricopa.gov

PCN: 442.08.31





Elliot Channel (Ellsworth to EMF)

Supervisory District: 1
Jurisdiction: Mesa, Maricopa County

The Elliot Channel (Ellsworth to EMF) is proposed as a 10,870 ft long, 116 to 196 ft wide, trapezoidal earth channel paralleling the proposed Santan Freeway from Ellsworth Road south of Elliot Road to the East Maricopa Floodway and is designed to convey 1,074 cfs (upper reach) to 4,4148 cfs (lower reach) of storm water runoff from the proposed Elliot Basin and Outfall Channel into the existing East Maricopa Floodway.

This channel is the outfall element of the Meridian, Crismon, and Elliot Drainage System. Along with the Sunland Springs Channel, the Siphon Draw Detention Basin, the Crismon Channel and lateral, the Elliot Basin and outfall channel and the Elliot Channel, this system is designed to protect approximately 15 square miles from the 100-year, 24-hour storm event.

Arizona Department of Transportation's 30% design effort for the Santan Freeway is working with and modifying the recommendations of the conceptual design to adjust to on-site drainage requirements and the changing conditions for off-site flows within the watershed to include land use changes and upstream infrastructure construction. This project may include the potential placement of basins at Warner Road and Elliot Road to provide for off-site flows and water quality mitigation of on-site freeway flows.

FY 03:	\$250,000
FY 04:	\$2,250,000
FY 05:	\$3,200,000
FY 06:	\$3,200,000
FY 07:	\$0

5-Yr CIP: \$8,900,000

Origination: East Mesa Area Drainage Master Plan, July 1998

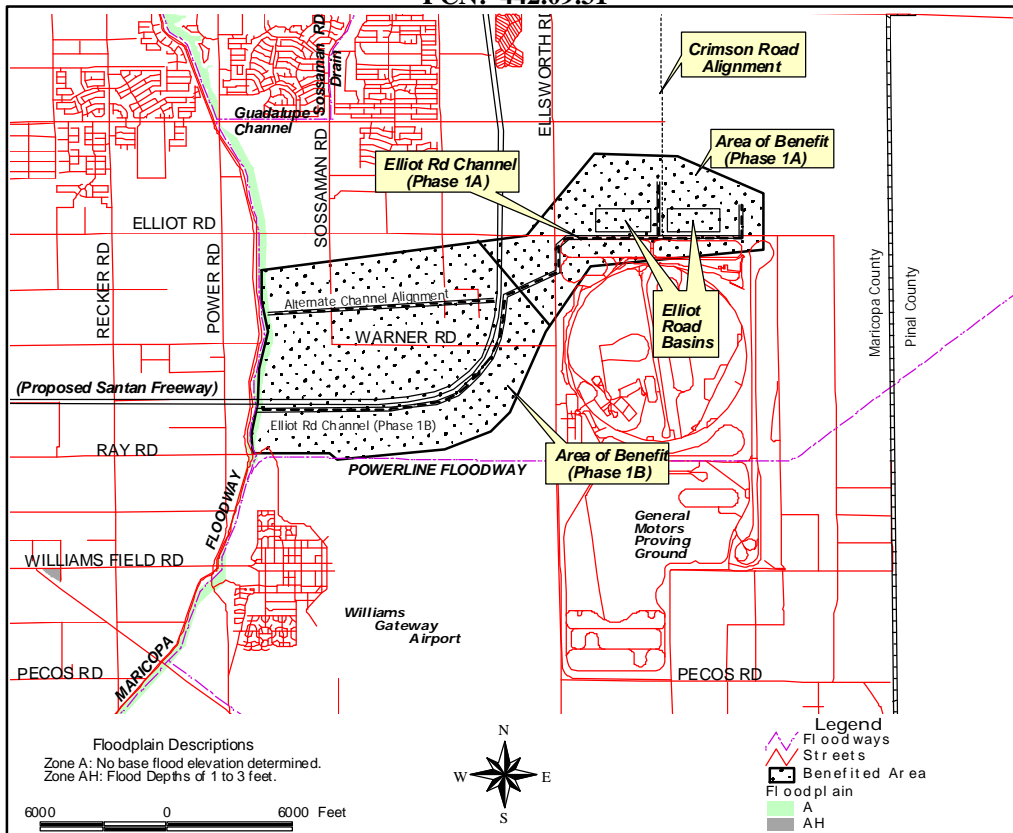
Authorization: Resolution FCD 98-11

Phone: 602-506-8111

Project Manager:
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fet@mail.maricopa.gov

PCN: 442.09.31



T1S R7E



Elliot Channel (East of Crismon)

Supervisory District: 1
Jurisdiction: Mesa

The Elliot Channel (Phase 2) is proposed as a 10,460 ft long, 36 to 47 ft wide, trapezoidal concrete and earth channel along Elliot Road from Meridian Road to Crismon Road designed to convey 509 cfs (upper reach) and 851 cfs (lower reach) of storm water runoff from the proposed Sunland Springs Channel and Siphon Draw Detention Basin west into the Elliot Basin.

This channel is the second downstream element of the Meridian, Crismon, and Elliot Drainage System. Along with the Sunland Springs Channel, the Siphon Draw Detention Basin, the Crismon Channel and lateral, the Elliot Basin and outfall channel and the Elliot Channel, this system is designed to protect approximately 15 square miles from the 100-year, 24-hour storm event. This system outfalls into the existing East Maricopa Floodway.

FY 03:	\$300,000
FY 04:	\$1,300,000
FY 05:	\$2,000,000
FY 06:	\$2,000,000
FY 07:	\$0
5-Yr CIP:	\$5,600,000

Origination: East Mesa Area Drainage Master Plan (July 1998)

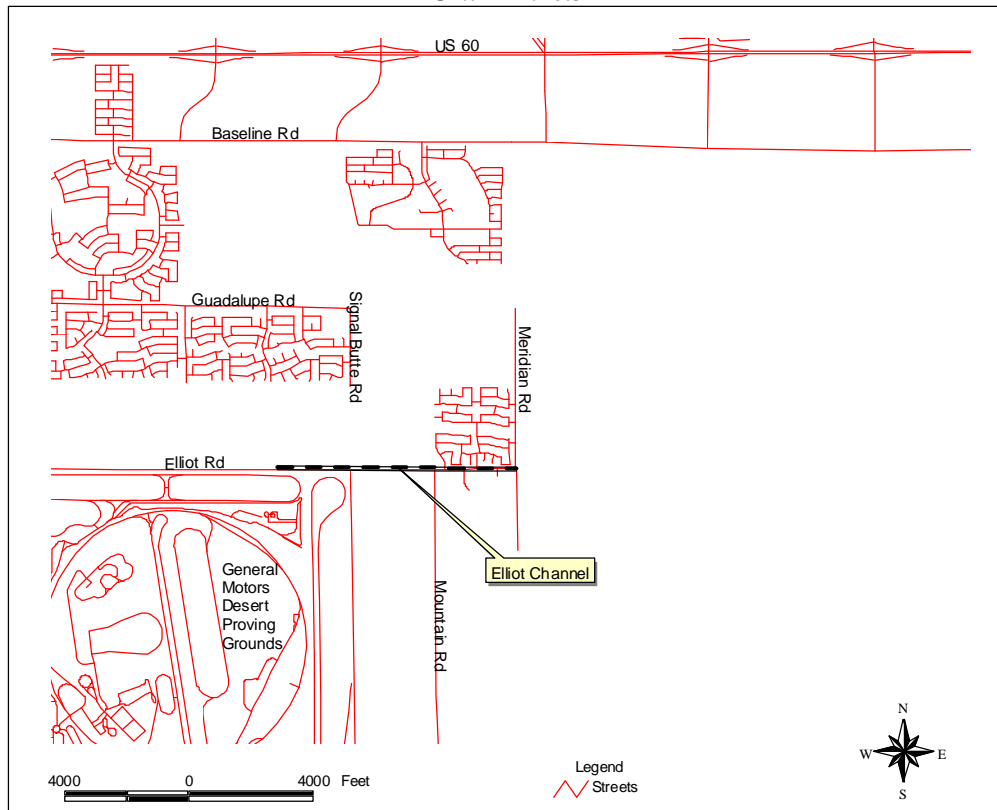
Authorization: Pending

Phone: 602-506-8111

Project Manager:
Felicia Terry, P.E.

fet@mail.maricopa.gov

PCN: 442.10.31



T1S/R7E



Sunland Springs/Siphon Draw

Supervisory District: 1
Jurisdiction: Mesa

The Sunland Springs Channel is proposed as an 8,650 ft. long, 28 to 59 ft wide, trapezoidal concrete channel along Meridian Road from Elliot Road to 1/2 mile north of Guadalupe Road to collect sheet flow storm water from the lands to the east and to convey 800 to 2618 cfs to the proposed Siphon Draw Basin and the Elliot Channel. The Siphon Draw Basin is a 55-acre basin, 6 ft deep north of Elliot Road along Meridian Road that provides 95 acre-feet of storage and reduces an inflow of 1,665, cfs to 77 cfs.

FY 03:	\$300,000
FY 04:	\$800,000
FY 05:	\$2,600,000
FY 06:	\$2,000,000
FY 07:	\$4,000,000

5-Yr CIP: \$9,700,000

Origination: East Mesa Area Drainage Master Plan (July 1998)

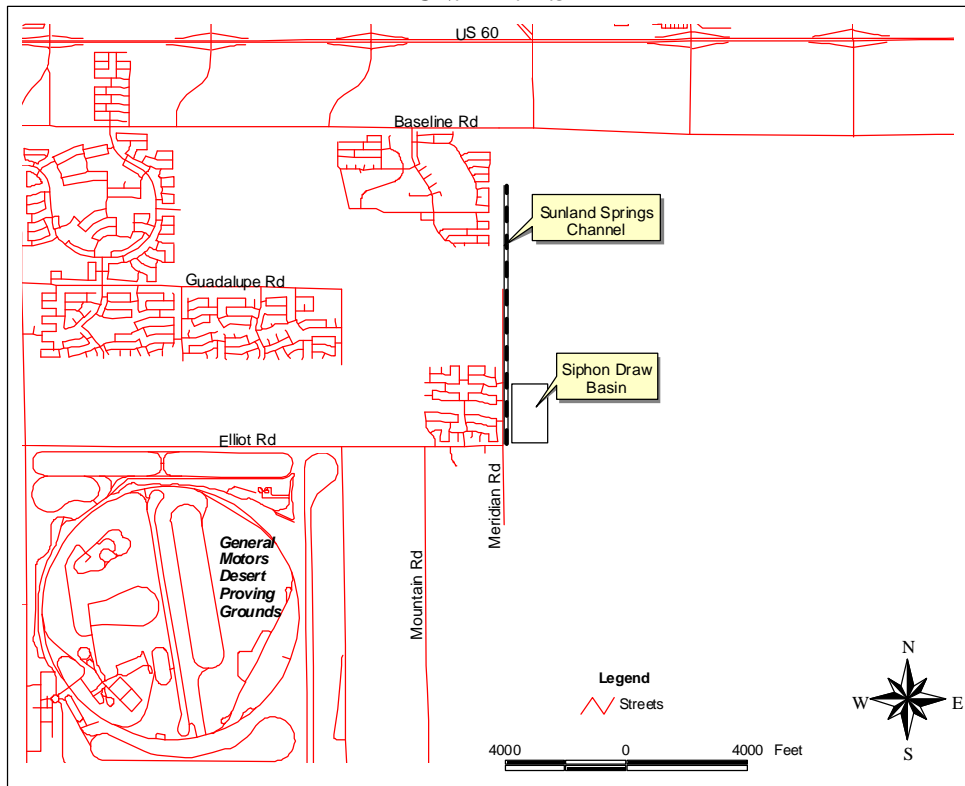
Authorization: Pending

Phone: 602-506-8111

Project Manager:
Felicia Terry, P.E.

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PCN: 442.11.31



T1S R7E



Glendale/Peoria ADMP Update

Supervisory District: 4
Jurisdiction: Glendale, Peoria

The District and the Cities of Glendale and Peoria recently developed the Glendale/Peoria ADMP Update study to identify existing and future drainage and flooding problems in the watershed, and to develop cost-effective solutions to alleviate those problems. The ADMP Update study assisted the Cities and the District in the prioritization and development of drainage infrastructure needs for the area, and included preliminary design plans for a recommended 9-Phase Improvement Projects program. The Improvement Projects program consists of channel improvements, detention basins, open channel conveyances, storm drains, and other storm water collection and disposal systems that provide 100-year protection for the 85-square mile watershed. The estimated total cost for the multi-year Improvement Projects program is \$34.3M with several potential cost-sharing partners, including the City of Peoria as the primary partner. The Peoria City Council adopted the recommendations of the ADMP Update study, and submitted Phases 1, 2, and part of 3 to the District during FY 01/02 for prioritization. The submittals were favorably evaluated and the District's 5-year CIP budget includes this funding to begin implementation of the various phases, dependent upon priorities and cost-sharing availability. The allocations include \$150,000 for FY 04/05, \$2,450,000 for FY 05/06, and \$2,100,000 for FY 06/07.

FY 03:	\$0
FY 04:	\$0
FY 05:	\$150,000
FY 06:	\$2,450,000
FY 07:	\$2,100,000
5-Yr CIP:	\$4,700,000

Origination: Glendale/Peoria ADMP (Dec. 2001)

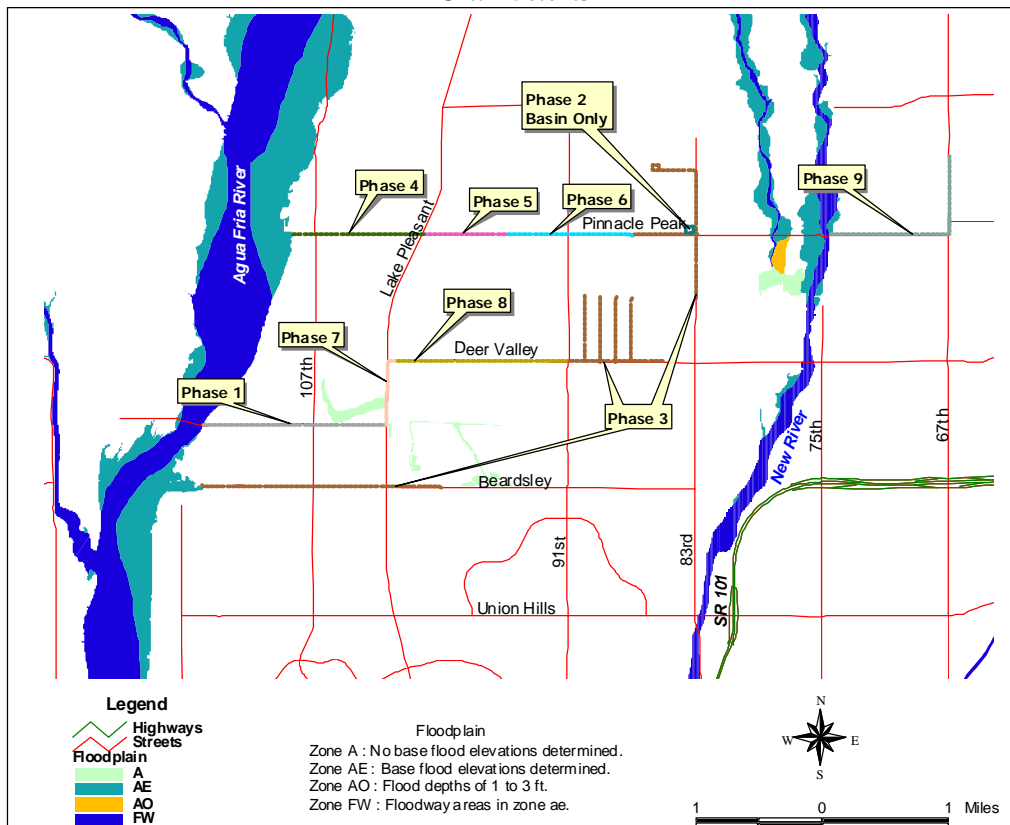
Authorization: FCD 2000A015, 2000A017

Phone: 602-506-4766

Project Manager:
Marilyn DeRosa, R.G.

mdr@mail.maricopa.gov

PCN: 450.02.31



T3N, T4N, R1E



67th Avenue Storm Drain

Supervisory District: 4
Jurisdiction: Glendale

The Project being proposed by the City of Glendale will provide 10-year storm drainage protection for a three square mile area lying within jurisdictional boundaries of both the cities of Glendale and Peoria. The project will consist of drainage pipes and catch basins and will be constructed in rights-of-way provided by Glendale. The outfalls for the project were constructed by the District along Cactus Road and Olive Avenue and are presently owned and operated by the City of Peoria. There is a 50% cost sharing with the District for the project. The estimated cost for the project is \$3 million, which includes the design, land acquisition, utility relocations, construction and construction management. Glendale will design and construct the project and provide for the operation and maintenance of the completed project. The Phases of the project include:

- Phase 1 – 200’ Storm Drain Installation at Intersection with Peoria Avenue
- Phase 2 – Remainder of Storm Drain Installation to Cactus
- Phase 1 is complete. Phase 2 is scheduled for FY 06/07.

FY 03:	\$0
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$1,385,000
5-Yr CIP:	\$1,385,000

Origination: Glendale/Peoria ADMP (Dec. 2001)

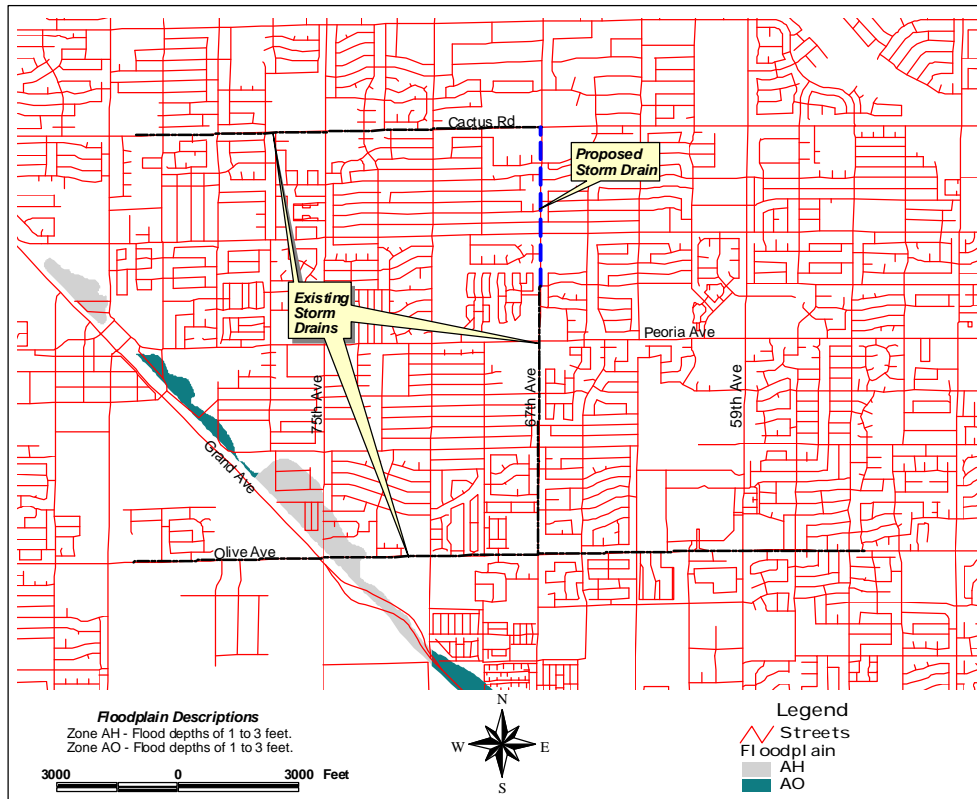
Authorization: FCD 99015

Phone: 602-506-4768

Project Manager:
Paul Stears, P.E.

pjs@mail.maricopa.gov

PCN: 450.05.30



T3N/R1E ; T3N/R2E



White Tanks #3 FRS Modification

Supervisory District: 4
Jurisdiction: Buckeye

The White Tanks Flood Retarding Structure #3 (White Tanks #3), owned and operated by the District, requires corrective action to bring the structure into compliance with dam safety standards and requirements. Several interim corrective measures at the dam were completed by the District in the spring of 2002.

Dam modification studies have been completed by the Flood Control District under Contract FCD 98-11. In addition, alternatives involving various combinations of large regional flood control basins, flood control channels and upstream channel improvements have been studied. During this fiscal year, the District will study in further detail the technical viability of rehabilitating the dam and associated revised cost estimates. Downstream benefits associated with dam rehabilitation and dam replacement alternatives will also be studied in detail.

The District has filed an application with the Natural Resources Conservation Service (NRCS) for federal funding assistance under the new federal program for dam rehabilitation (Public Law 106-472) for this project. NRCS is currently providing technical assistance (NRCS staff assistance) under this program for the project. The District and NRCS will develop a work plan this FY and develop an MOU which outlines intended agency responsibilities and cost share responsibilities for the project. The schedule for project implementation is contingent upon and timing of federal funding assistance under an agreement with the Natural Resources Conservation Service.

FY 03:	\$150,000
FY 04:	\$500,000
FY 05:	\$2,030,000
FY 06:	\$5,000,000
FY 07:	\$5,600,000

5-Yr CIP: \$13,280,000

Origination: Identified need to address dam safety issues for District owned dams
June 1994

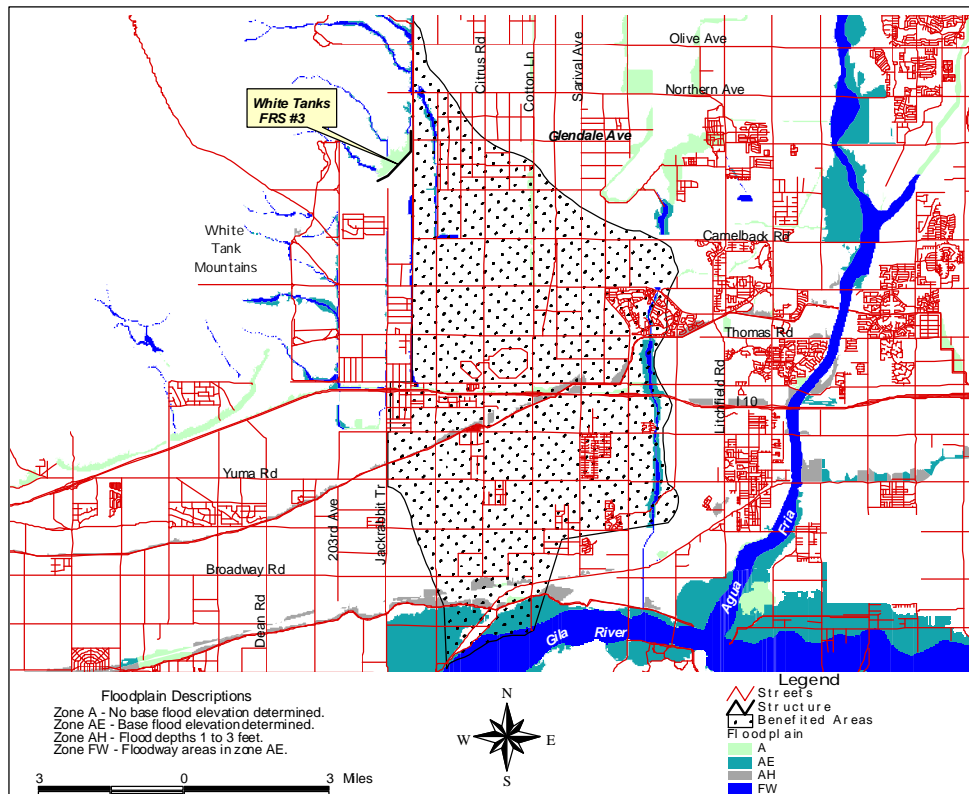
Authorization: IGA FCD 98023

Phone: 602-506-8610

Project Manager:
Tom Renckly, P.E.

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PCN: 470.04.30



T2N/R2W



Loop 303 Corridor/White Tanks ADMP Update

Supervisory District: 4 & 5
 Jurisdictions: Avondale, Buckeye, El Mirage, Goodyear, Glendale, Litchfield Park, Surprise

Current and projected District CIP expenditures can be divided into two parts: a planning study that will lay the groundwork for further flood control activities; and a design and construction phase that will address flooding issue. The planning study consists of providing professional engineering services necessary for developing an updated area drainage master plan to determine guidelines for stormwater management and mitigate flooding for the White Tanks Area. The study will include analysis of approximately 220 square miles of watershed from the McMicken Dam south to Gila River and from the White Tank Mountains east to the Agua Fria River. The study will identify drainage problems, update the existing hydrology due to development and new hydrologic methodology, and develop cost effective solutions for a storm water collection and disposal system and will further identify potential outfall alternatives. The planning study is budgeted at \$1.3 million and is included in the CIP. The design and construction phase will involve the implementation of solutions identified in the study once these planning and conceptual design phases have been completed, and remedial actions have been specified. Total drainage infrastructure expenditures in the watershed are now estimated at \$400 million. The ADMP Update, after delays, will be completed in FY 02/03 and funds will be provided in a budget adjustment.

FY 03:	\$0*
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$0

Origination: Loop 303 Corridor/White Tanks ADMP Update Study
 Authorization: FCD Resolution 99-03

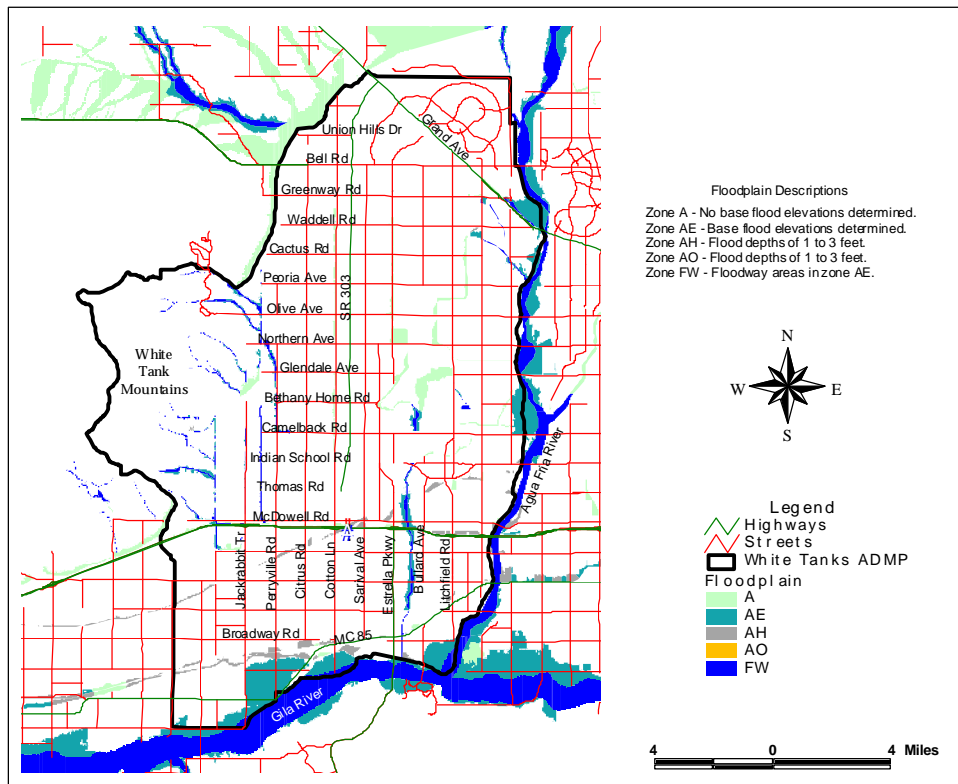
*Funds will be included in CIP Budget Adjustment

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T3N/R2W, T3N/R1W, T4N/R2W, T4N/R1W, T3N/R3W, T2N/R3W-R1W, T1N/R3N-R1W;
 T1S/R3W, T1S/R2W



West Cactus Road Basin/Channel

Supervisory District: 4
Partners: El Mirage

The West Cactus Road Detention Project provides a regional outfall for the Cities of Surprise and El Mirage. Under existing conditions, the segment of the existing channel through the El Pueblo Golf Course and RV Resort from El Mirage Road to the Agua Fria is under sized. The improvements will consist of improving the channel through the golf course, drainage structures, and modifications to the basin located just east of El Mirage Road and South of Cactus Road. This project was identified in the original White Tanks Area Drainage Master Plan in 1992 and again as the preferred alternative in the Loop 303 Corridor/White Tanks Area Drainage Master Plan Update that is currently nearing completion. The project was requested by the City of El Mirage and approved for inclusion in the District's CIP. El Mirage will cost share the project with the District. A project Intergovernmental Agreement will provide authorization and project funding.

FY 03:	\$0
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$0

Origination: White Tanks ADMP in 1992 and Loop 303 Corridor/White Tanks ADMP Update 2002

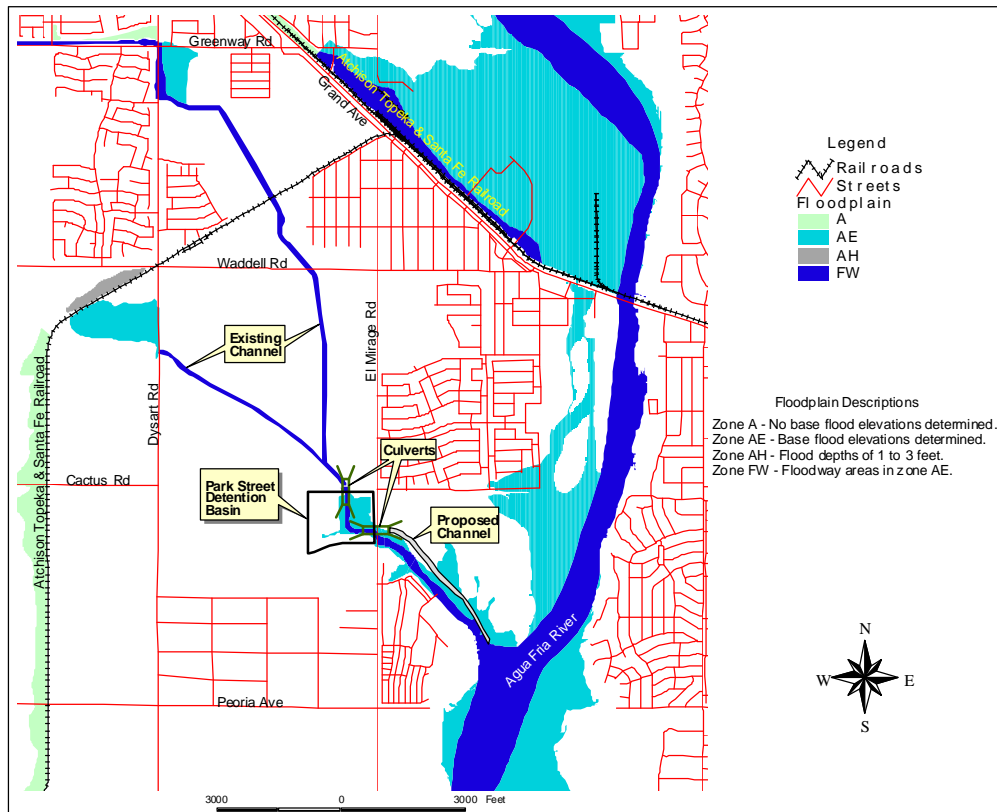
Authorization: FCD Pending

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T3N/R1W



Reems Road Channel

Supervisory District: 4
 Jurisdictions: Surprise, Maricopa County

The Reems Road Channel Project provides a regional outfall for the City of Surprise. Under existing conditions, there is existing flooding and floodplains associated with Reems Road. The improvements will consist of constructing a channel adjacent to Reems Road, associated drainage structures, and a basin located just north of Olive Avenue and west of the Reems roadway. The Project will outfall into the existing Dysart Basin and Channel. This project was identified in the original White Tanks Area Drainage Master Plan in 1992 and again as the preferred alternative in the Loop 303 Corridor/White Tanks Area Drainage Master Plan Update that is currently nearing completion. The project was requested by the City of Surprise and recommended for inclusion in the District's CIP. The City of Surprise will construct the project within the City Limits and the District will be responsible for the project from Peoria Avenue to the Dysart Basin. A future Intergovernmental Agreement will provide project authorized funding.

FY 03:	\$0
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$0

Origination: White Tanks ADMP in 1992 and Loop 303 Corridor/White Tanks ADMP Update in 2002

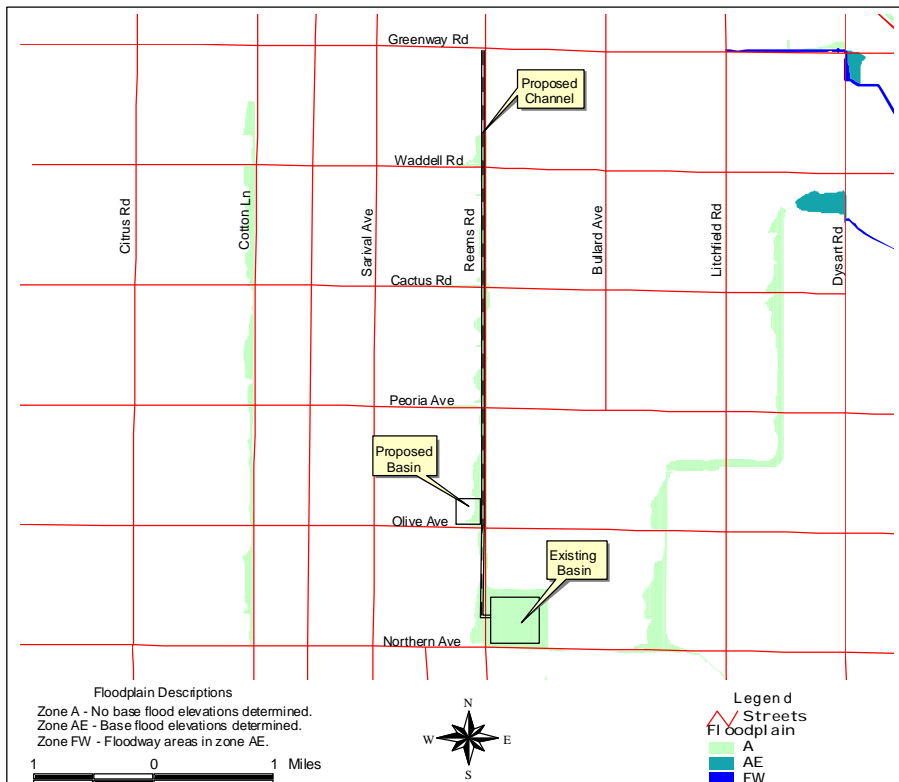
Authorization: FCD Pending

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T3N/R1W



Bullard Wash Phase 2

Supervisory District: 4
Jurisdictions: Goodyear

Bullard Wash is included within the Loop 303 Corridor/White Tanks Area Drainage Master Plan (ADMP), which recommends improvements be made to the wash. Phase I of the Bullard Wash Improvements Project, from the Gila River to Lower Buckeye Road, was constructed as a previous District/City of Goodyear project. Phase II includes an earthen/greenbelt channel along the Bullard Wash alignment from Lower Buckeye Road to McDowell Road. A diversion channel will take high storm flows from Bullard Wash at McDowell Road through detention basins north of I-10 and west of Dysart Road, with an outlet to the Agua Fria River. Landscaping, fencing and other multi-use facilities are anticipated along the channel alignment and within the basins.

The estimated cost of the Phase II project design, rights-of-way acquisition, public involvement, utility relocations, construction, and construction management is \$25 million. The project will channelize the floodplain north of the Phoenix-Goodyear Airport. It will reduce the floodplain width and protect the Phoenix-Goodyear Airport and nearby development from flooding. For the area north of I-10, the project will collect and convey storm-water currently draining by sheet flow to Bullard Wash. This storm water will otherwise collect in streets, businesses, farm fields, and residential areas.

FY 03:	\$800,000
FY 04:	\$1,750,000
FY 05:	\$6,750,000
FY 06:	\$4,000,000
FY 07:	\$4,000,000

5-Yr CIP: \$17,300,000

Origination: The Draft Loop 303/White Tanks ADMP Update (Feb. 2002)

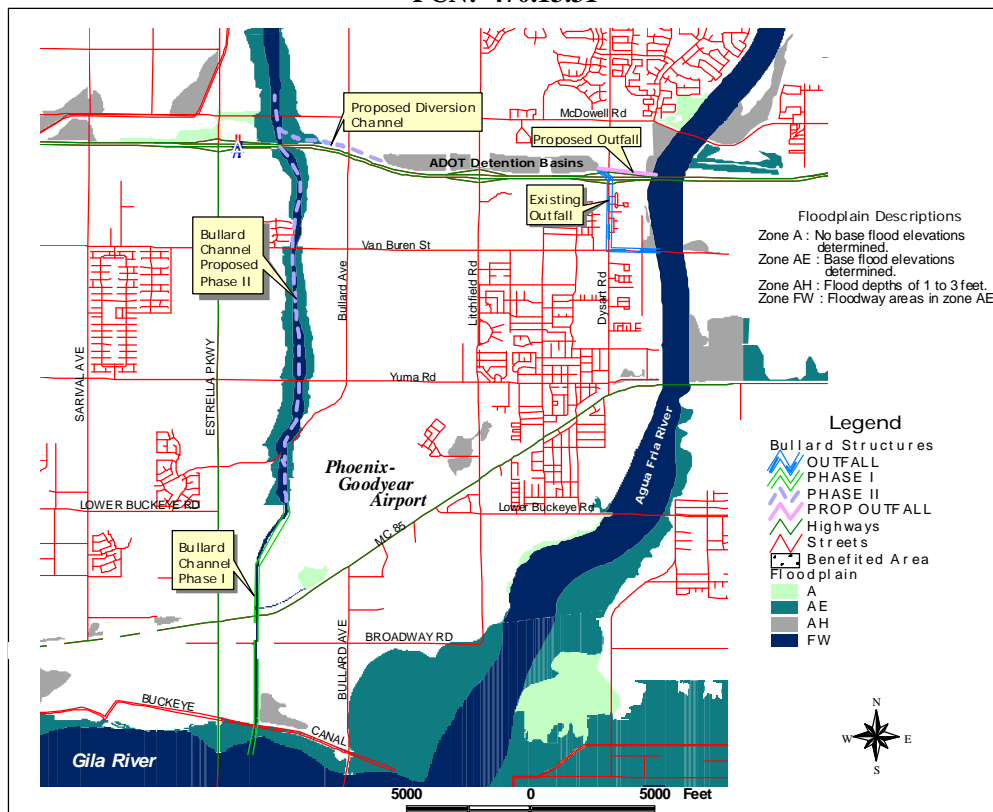
Authorization: FCD 2001A006

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T1N/R1W



Queen Creek Channel

Supervisory District: 1
Jurisdiction: Queen Creek

The proposed plan is to channelize Queen Creek Wash from Hawes Road northwesterly to Power Road for a distance of approximately two and one half- (2.5) miles. Based on the Flood Insurance Study on Queen Creek Wash, there are areas of significant breakouts particularly along the north bank of this reach of the wash. The most feasible solution for preventing the breakouts from occurring along Queen Creek Wash in this area is to increase the cross section of the wash to contain the 100-year flows. This Project consists of channel construction and improvement of the Sossaman Road Bridge Crossing.

The Town of Queen Creek will be the lead agency for design, rights-of-way acquisition, utility relocation, construction, construction management and operation and maintenance of the Project. The Town is to complete all the phases of the Project. The District shall review and approve the design plans and the bid and construction documents prior to bid. The District shall also approve any future landscape amenities to assure hydraulic conveyance within the Project. The total cost of the project is estimated at \$6.0 million with District's contribution of \$2.42 million for this project. The design and construction are scheduled for completion in FY 02/03 and FY 03/04, respectively.

FY 03:	\$1,420,000
FY 04:	\$1,000,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$2,420,000

Origination: Queen Creek/Sanokai Wash HMP (Oct. 2000)

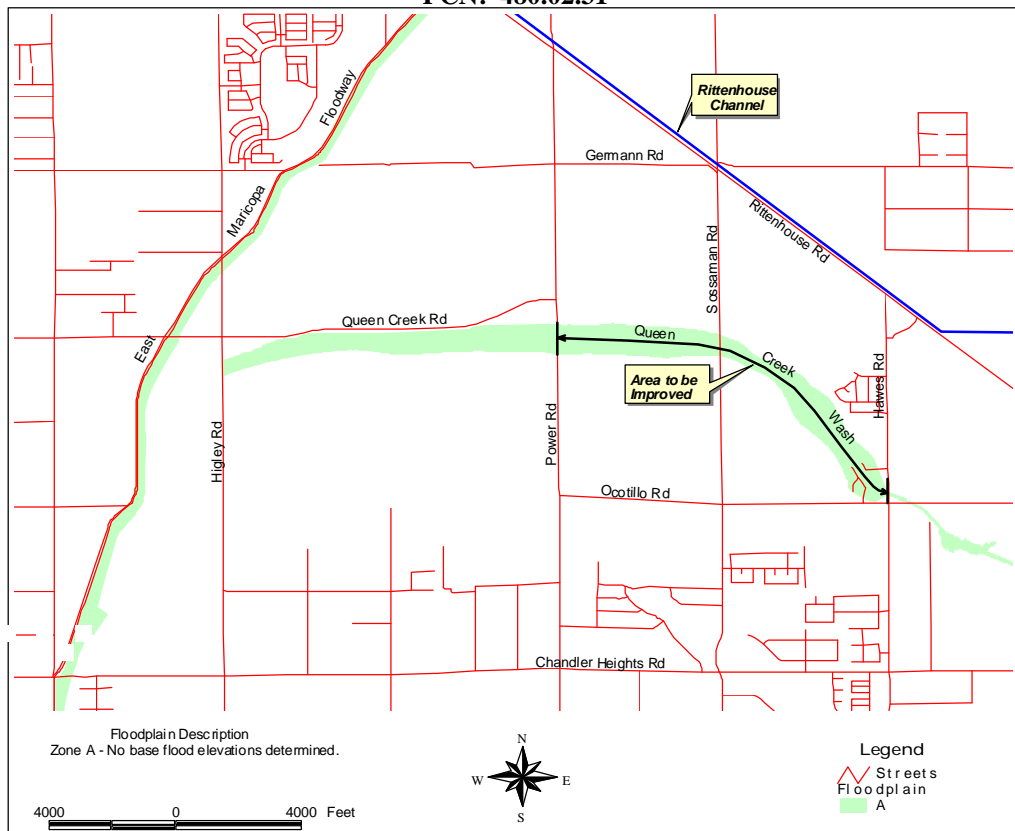
Authorization: FCD 2000A004

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T2S/R7E



Sanokai Wash Channelization

Supervisory District: 1
Partners: Gilbert, Queen Creek

The purpose of this project is to design, construct, operate and maintain a conveyance channel capable of containing a 100-year storm event within the existing natural alignment of Sanokai Wash from Power Road westerly to the confluence with Queen Creek west of Higley Road.

Currently, the project is authorized by IGA to proceed with the design only of channel improvements, improved road crossings, channel stabilization, channel surface treatments to reduce or eliminate erosion and sediment transport, side drainage inlet structures and connections and appropriate landscaping. Construction, and land acquisition tasks will be provided for under a subsequent IGA.

The Sanokai Wash Channelization (EMF to Power Road) is proposed as a 13,500 ft long, approximately 200 ft wide, trapezoidal earth channel paralleling the proposed Ocotillo Road alignment from approximately Power Road to the East Maricopa Floodway and is designed to convey 3,130 cfs of storm water runoff within Sanokai Wash into the existing East Maricopa Floodway.

FY 03:	\$400,000
FY 04:	\$0
FY 05:	\$1,000,000
FY 06:	\$4,700,000
FY 07:	\$4,000,000

5-Yr CIP: \$10,100,000

Origination: Queen Creek & Sanokai Wash Hydraulic Master Plan, November 2000

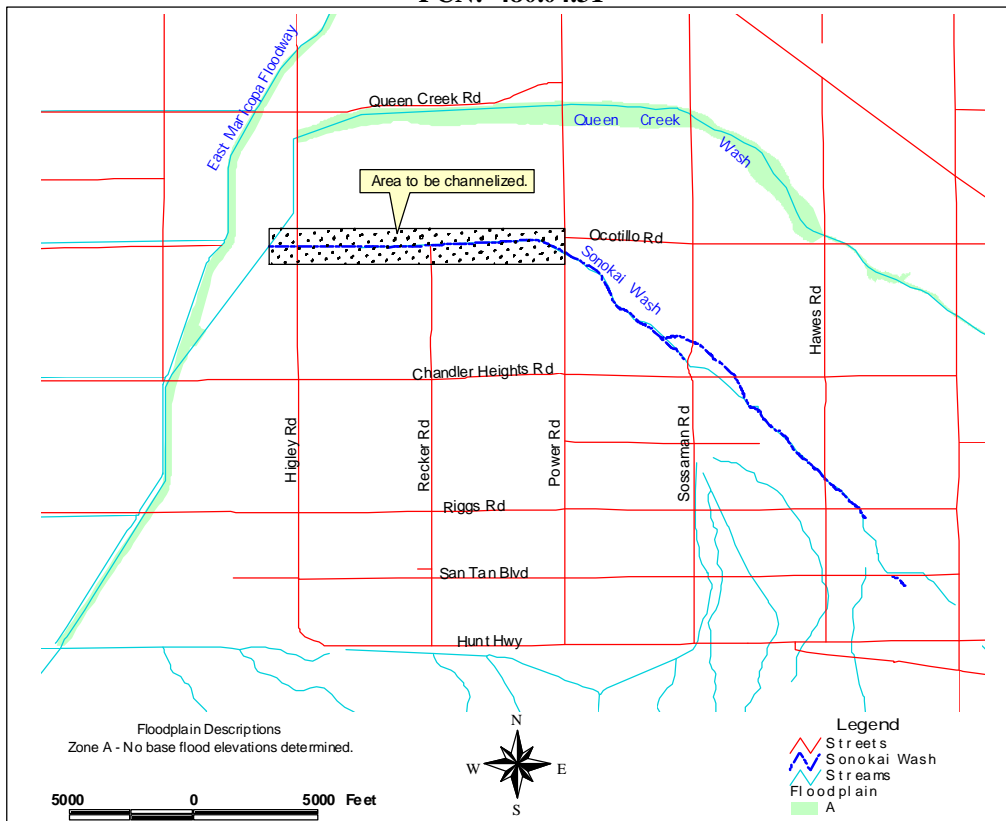
Authorization: FCD 2002A002

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T2S/R6E & T2S/R7E



Higley ADMP

Supervisory District: 1 & 2
Jurisdictions: Chandler, Gilbert, Mesa

The Higley ADMP has identified features to mitigate the flooding along the Eastern Canal, the Consolidated Canal, and the Southern Pacific Railroad adjacent to Arizona Ave. as well flooding west of these features caused by overtopping of the canal or railroad. The recommended plan in the southern portion of the study area includes channels along the eastern side of the Eastern and Consolidated Canals extending south from the proposed San Tan Freeway. The proposed channels will convey flood flows across the Gila River Indian Community southerly to the East Maricopa Floodway. Five detention basins are also proposed to reduce the size of the channels. The Queen Creek Road Storm Drainage Basin is the first element in implementation of regional flood control infrastructure as identified in the Higley Area Drainage Master Plan. The basin is generally bounded by: Queen Creek Road on the north; the Section Line 1/4 mile east of McQueen Road on the east; the Section Line 1/2 mile south of Queen Creek Road on the south; and McQueen Road/Consolidated Canal on west. The basin property is approximately 70 acres in size.

FY 03:	\$210,000
FY 04:	\$350,000
FY 05:	\$1000,000
FY 06:	\$2,250,000
FY 07:	\$5,000,000

5-Yr CIP: \$8,810,000

Origination: FCD Staff Recommendation – ongoing Planning Program

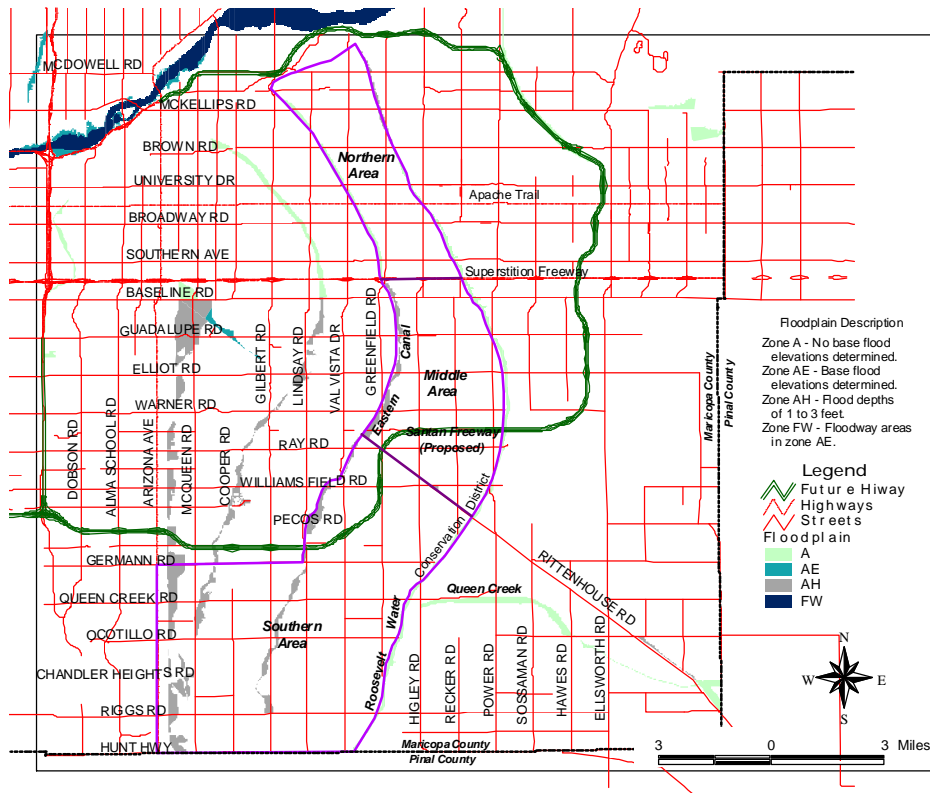
Authorization: Resolution FCD 98-05

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T1N/R6E, T1S/R6E, T1S/R7E, T2S/R6E, T2S/R5E



Adobe Dam At DDMCP

Supervisory District: 3
Jurisdiction: Phoenix, Maricopa County

The purpose of the Adobe Dam/Desert Hills ADMP is to quantify the extent of drainage, flooding, and erosion problems, sources, and hazards in the Adobe Dam/Desert Hills area, and develop solutions to mitigate the identified concerns. Successful implementation of the recently completed Skunk Creek Watercourse Master Plan (WCMP) and the Cave Creek/Apache Wash WCMP is largely dependent upon prudent and ongoing management of the watersheds that supply runoff to the WCMP corridors. The Adobe Dam/Desert Hills ADMP project will incorporate existing drainage facilities and policies into the modeling process, and develop alternative solutions for the entire Adobe Dam/Desert Hills watershed. The project will link management of the watershed to implementation of the WCMP's by making recommendations that support the corridor management tools adopted for the Skunk Creek and Cave Creek/Apache Wash WCMP corridors.

The major objectives of the project are to quantify selected drainage, flooding, and erosion hazards within the project area; alleviate potential flood and erosion damage within the watershed by mitigating the expected increase in runoff due to development and preserving the ability of the primary wash corridors to convey stormwater; coupling management of the watershed with recently adopted WCMP corridor management tools for the Skunk Creek and Cave Creek/Apache Wash corridors; develop a plan that area floodplain managers, municipalities, and developers will use as a basis for drainage and watershed regulation, improvements, and design; and identify cost-effective, sustainable flood and erosion control solutions for the project area that may be implemented together or individually, based on scheduling, funding, and cost sharing.

FY 03:	\$1,021,000
FY 04:	\$150,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$1,171,000

Origination: FCD Staff Recommendation – ongoing Planning Program

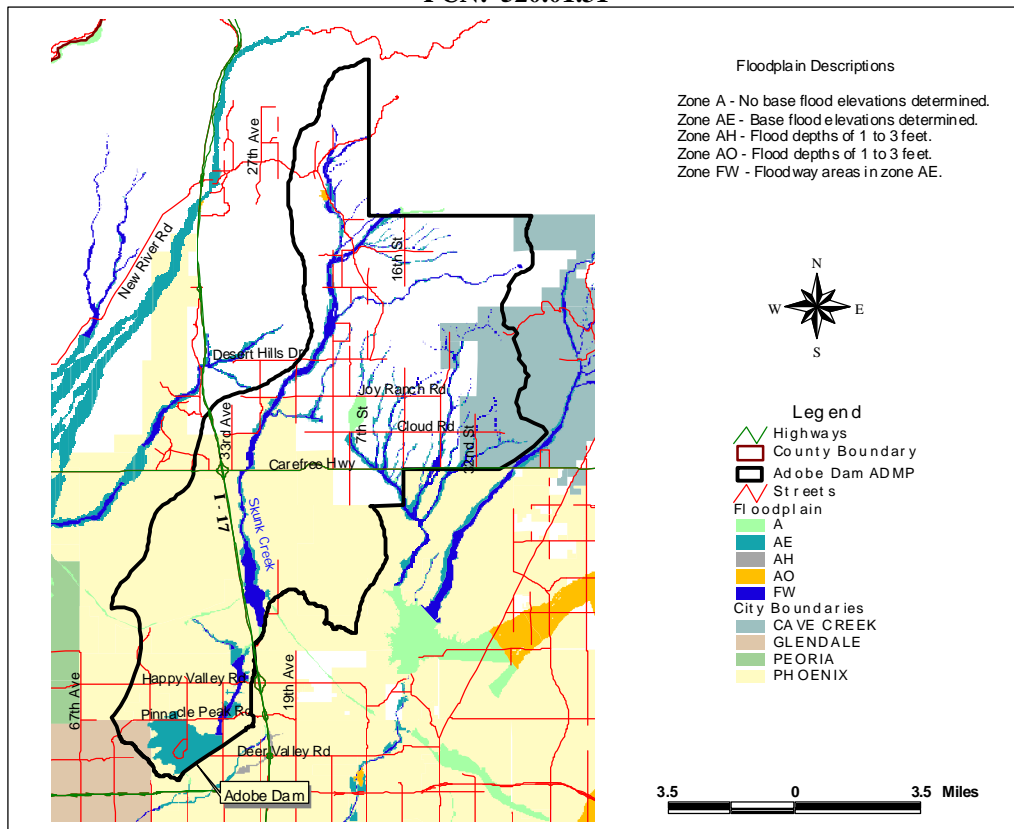
Authorization: FCD

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Project Manager:
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PCN: 520.01.31



T4N/R3E



Skunk Creek Floodprone Properties Acquisition

Supervisory District: 3
Jurisdiction: Maricopa County

Several homes in the Skunk Creek corridor, north of Carefree Highway, were constructed prior to the FEMA 100-year Floodplain mapping in 1987. Once mapping was complete, several of these residents learned that their homes were within a FEMA 100-year Floodway. These homes have a higher risk for flooding than those outside the floodway and, when the floodplain is active, the presence of these structures in the floodway can create adverse impacts to adjacent homeowners. In other circumstances, residents were outside the regulatory floodway, but found themselves in designated areas of severe erosion hazard due to unique local geologic characteristics.

All of these structures would be susceptible to varying degrees of damage from water and water-borne sediments, and may be threatened by erosion of the stream banks caused by high water flows. In fact, a hazard analysis shows that these residents have a relatively high risk of injury, death, and/or property damage due to flooding and/or erosion. Most important, perhaps, is the very short time interval between the most intense watershed precipitation and when the flow reaches hazardous levels at the effected residences, referred to as the Emergency Response Time (ERT).

This time interval is the time available to effect a coordinated flood warning and response. With an ERT of less than one hour, these residents are at a substantially increased risk for injury or death.

FY 03:	\$2,000,000
FY 04:	\$800,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$2,800,000

Origination: Skunk Creek Watercourse Master Plan (April, 2002)

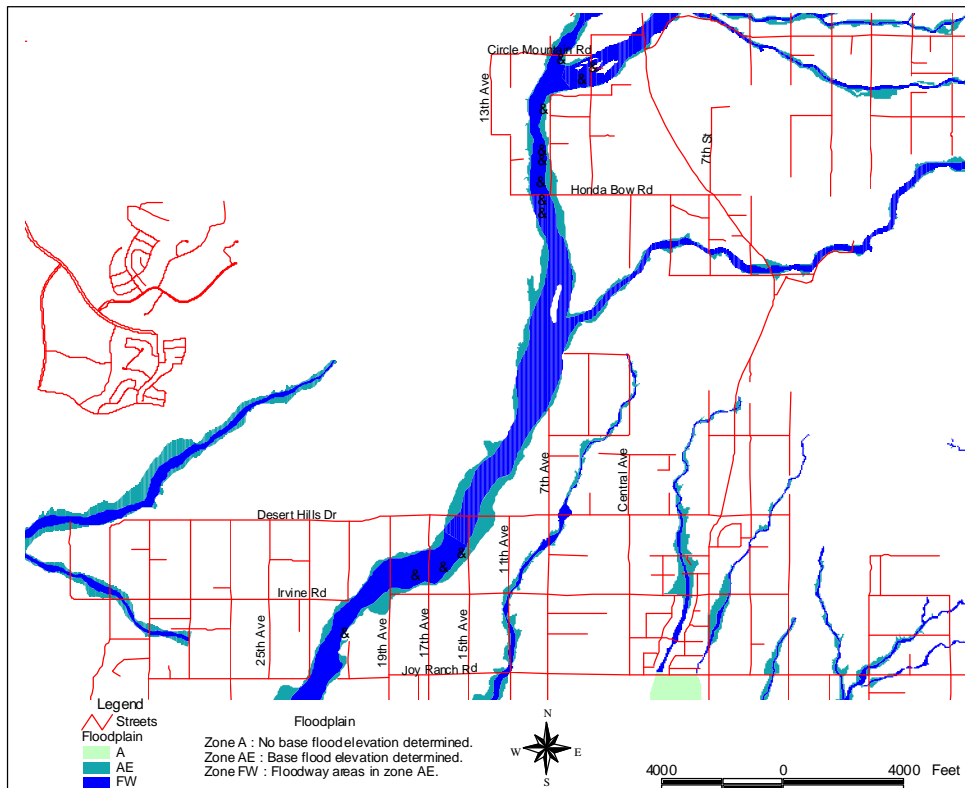
Authorization: FCD 2001R011

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T6N/R3E



Durango ADMP

Supervisory District: 2
Jurisdictions: Avondale, Phoenix, Tolleson

The study consists of an area drainage master plan to determine guidelines for stormwater management and structural mitigation measures for flooding for the Durango Study area. The study includes analysis of approximately 68 square miles of watershed, which extends from I-10 south to the Salt/Gila Rivers, and from approximately 27th Avenue west to the Agua Fria River. The study identifies drainage problems, update to the existing hydrology due to development and new hydrologic methodology, and develops cost effective solutions for a storm water collection and disposal system and identifies potential outfall alternatives. The design and construction phase will involve the implementation of solutions to flooding that are identified once the planning and conceptual design phases have been completed, and remedial actions have been specified. Total expenditures in the CIP are now estimated at \$130 million for identified projects, which includes the costs for the Durango Regional Outfall Project.

FY 03:	\$0
FY 04:	\$0
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$0

Origination: FCD Staff Recommendation – ongoing Planning Program

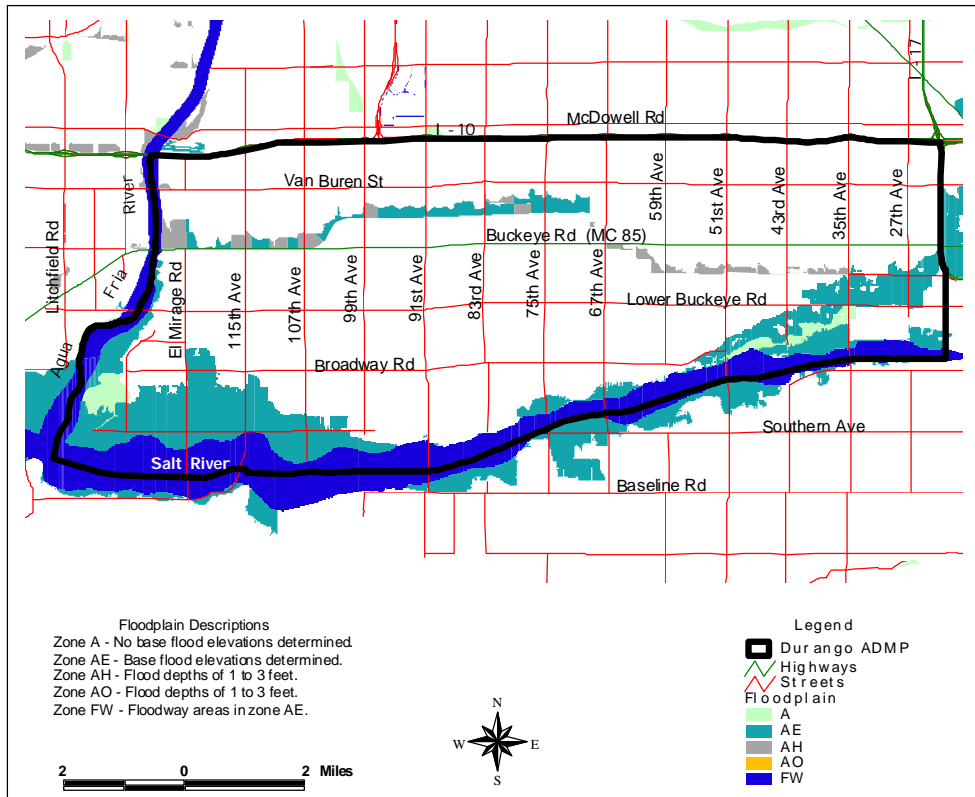
Authorization: FCD 99-03

Phone: 602-506-5537

Project Manager:
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PCN: 565.02.31



T1N/R1W, T1N/R1E, T1N/R2E



Durango Regional Outfall

Supervisory District: 5
Jurisdictions: Avondale, Tolleson

This project consists of a principal outlet channel located north of the Union Pacific Rail Road (just north of MC 85) from approximately 85th Avenue westward to the Agua Fria River. Additionally, the project will include three basins and two auxiliary channels. The auxiliary channels located on 91st Avenue and 99th Avenue will intercept and divert the storm water runoff, which accumulates and floods Van Buren Street. The basins will be sited along the principal channel to reduce the storm water peak flows.

FY 03:	\$250,000
FY 04:	\$3,000,000
FY 05:	\$5,700,000
FY 06:	\$4,000,000
FY 07:	\$0

5-Yr CIP: \$12,950,000

Origination: FCD Staff Recommendation per Durango ADMP

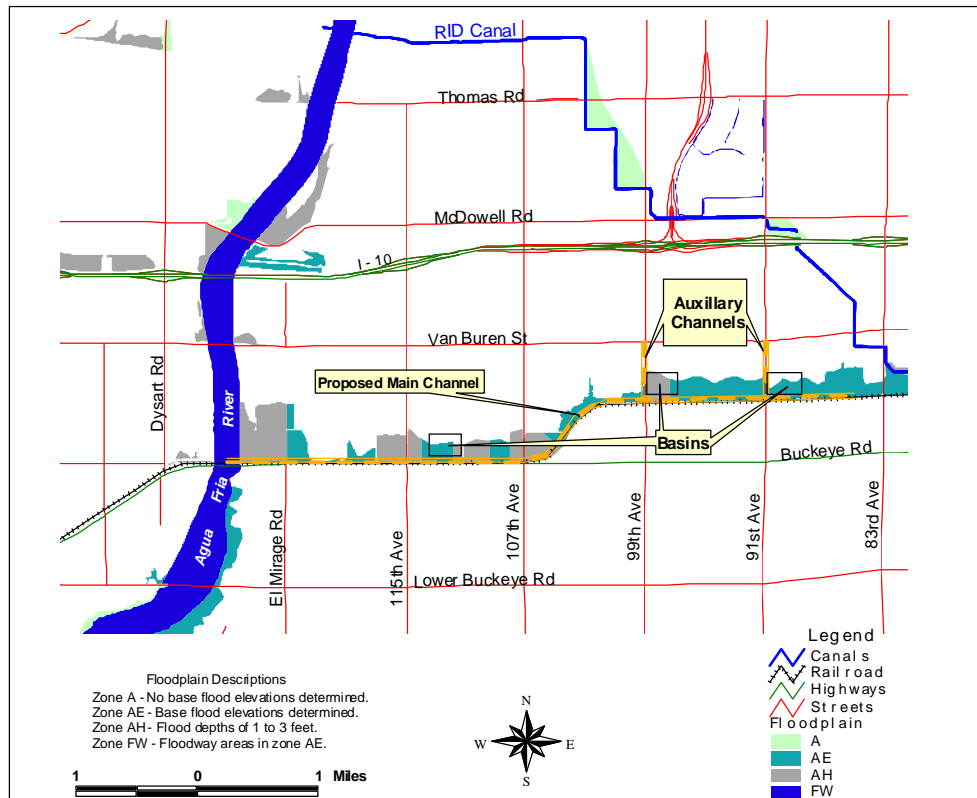
Authorization: FCD 2000R012

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T1N/R1W, T1N/R1E



Durango Regional Conveyance Channel

Supervisory District: 5
Jurisdictions: Avondale, Phoenix

This project consists of a channel adjacent to the Union Pacific Railroad from approximately 63rd Avenue to 75th Avenue, a channel adjacent to 75th Avenue from approximately Van Buren Street to south of Broadway Road, and a storm drain located along 75th Avenue from I-10 to the Salt/Gila River. Additionally, the project will include two basins. The basins will be sited along the primary channel to reduce the storm water peak. The design and construction of the project is estimated to cost \$60 million dollars.

FY 03:	\$0
FY 04:	\$0
FY 05:	\$1,200,000
FY 06:	\$2,000,000
FY 07:	\$4,000,000
5-Yr CIP:	\$7,200,000

Origination: FCD Staff Recommendation per Durango ADMP

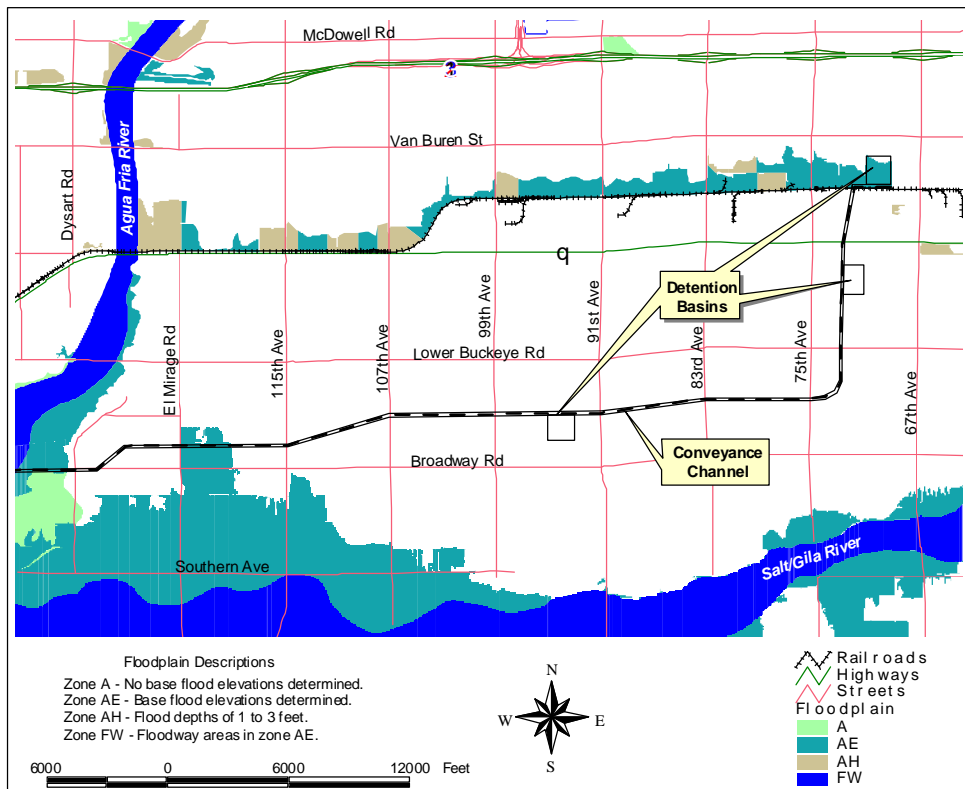
Authorization: Resolution FCD2002R012

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TIN/R1W, TIN/R1E



Doubletree Ranch Road System

Supervisory District: 2 & 3
Partners: Paradise Valley

The Doubletree Ranch Road Drainage Improvement Project will provide solutions for the flooding problems that exist within a mostly built out residential area in the Town of Paradise Valley. Several homes along Doubletree Ranch Road have experienced flooding during past storms, and children have been stranded at a local grade school, whose access becomes inaccessible during heavy rains. Two major watersheds, Doubletree Ranch Road and Cherokee Wash, exist within the project area. The Doubletree Ranch Road watershed begins in the Phoenix Mountain Preserve west of Tatum Boulevard and flows eastward along Doubletree Ranch Road to Indian Bend Wash. Cherokee Wash, which is located south of the Doubletree Ranch Road watershed, also begins in the Phoenix Mountain Preserve west of Tatum Boulevard, but then flows northeast to Indian Bend Wash. The project consists of a 10-year storm drain system in Doubletree Ranch Road, with storm drain laterals extending along the adjacent streets. In addition, surface flows greater than the 10-year flows will be to be conveyed on the surface of Doubletree Ranch Road.

The cost of the drainage improvements is estimated at \$10.3 million. The drainage improvements will be funded 60% by the District and 40% by the Town of Paradise Valley. The District is the lead in the construction, construction management and rights-of-way acquisition. The Town will operate and maintain the constructed facility. Improvements to Doubletree Ranch Road will be constructed with the drainage improvements, at Town cost. The project has been designed, and construction is scheduled to begin in FY 02/03.

FY 03:	\$5,579,000
FY 04:	\$6,600,000
FY 05:	\$0
FY 06:	\$0
FY 07:	\$0

5-Yr CIP: \$12,179,000

Origination: Doubletree Ranch Road Regional Drainage Study, May 1996

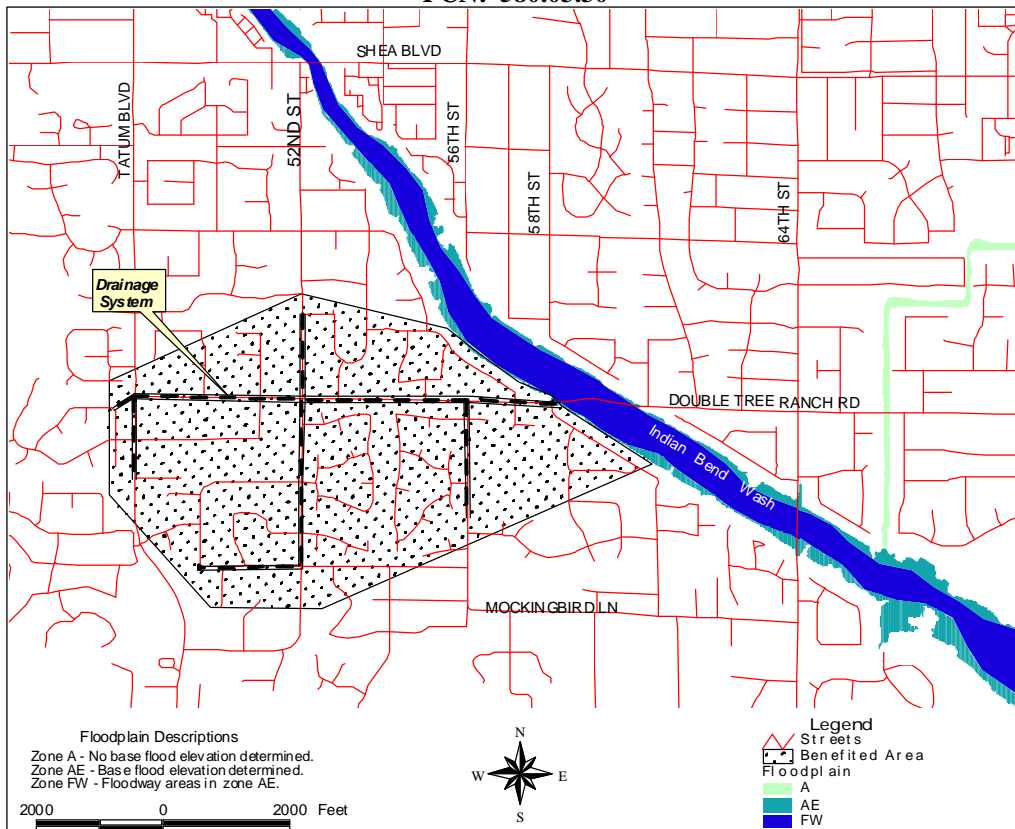
Authorization: FCD 1999A026

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PCN: 580.03.30



T3N R4E



Bethany Home Outfall Channel

Supervisory District: 4 & 5
Jurisdictions: Glendale, Phoenix

The Bethany Home Road Outfall Channel was identified in the Maryvale Area Drainage Master Plan (ADMP). The project includes a linear basin and channel along the Grand Canal extending westerly from 64th Avenue to the New River. The project will have a 100-year capacity removing approximately 745 structures from the floodplain. The channel alignment (Phase I and II) is in Phoenix, Glendale, and unincorporated Maricopa County. Portions of the channel are being used as a trail corridor and linear park.

Phase I of the project has been completed by ADOT, with District participation. Phase I extends west from the Agua Fria Freeway to the New River following the Bethany Home Road Alignment. ADOT increased the size of their channel to accommodate additional flows from the Maryvale area.

Phase II of the project will extend along Bethany Home Road easterly from the Agua Fria Freeway and along the Grand Canal to 64th Avenue. This phase of the project will include a channel from the Agua Fria Freeway alignment to 73rd Avenue and an earthen, linear, on-line detention basin from 67th Avenue to 73rd Avenue. The ADMP also recommends ten year capacity storm drains, located within Bethany Home Road and Camelback Road, extending from 59th Avenue to the Outfall Channel. Preliminary estimates indicate that the cost to construct this 100-year channel and 10-year storm drains is approximately \$67 million. The cost share for the project is estimated at 50% District, and 25% each for the Cities of Glendale and Phoenix.

The first reach of the project (Agua Fria Freeway to 83rd Avenue) is being designed and rights of way are being acquired, with construction to begin in FY 02/03. Design and construction of the improvements will be phased over several years, with completion anticipated in 2009.

FY 03:	\$6,824,000
FY 04:	\$12,090,000
FY 05:	\$4,515,000
FY 06:	\$8,400,000
FY 07:	\$5,250,000

5-Yr CIP: \$37,079,000

Origination: Maryvale Area Drainage Master Study (November 1997)

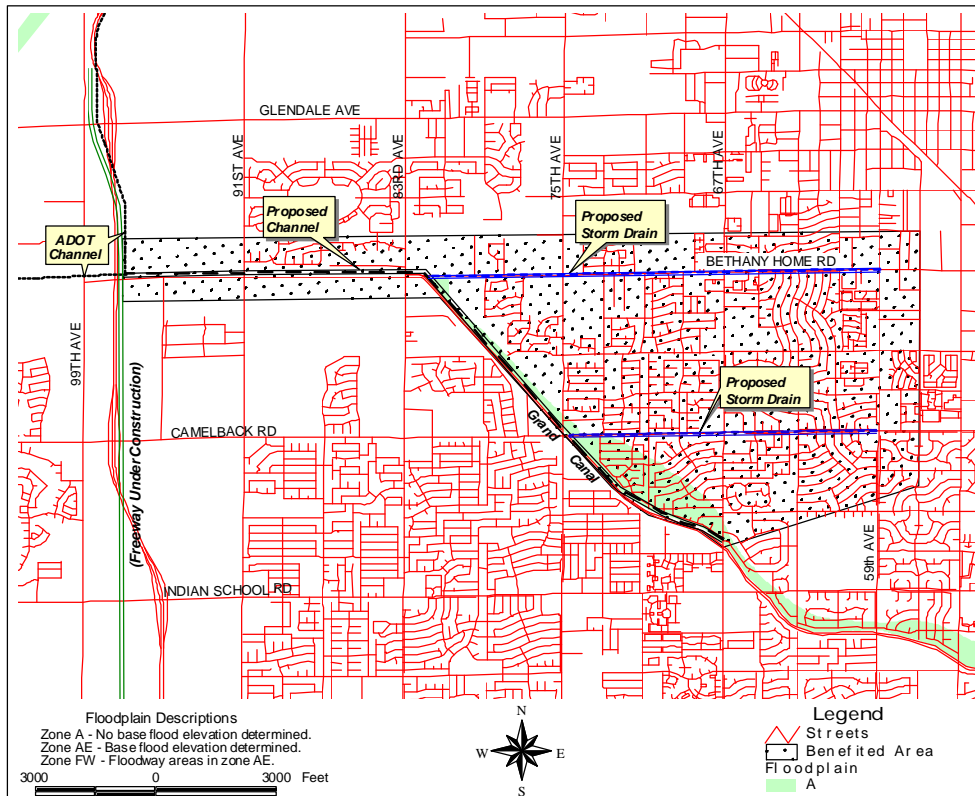
Authorization: FCD 2000A013

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T2N/R1E, T2N/R2E



24th Avenue/Camelback Basin

Supervisory District: 3
Jurisdiction: Phoenix

The purpose of the Drainage Study is to identify the extent of flooding problems, evaluate alternative facilities to minimize flooding and establish a recommended plan to provide flood protection and public safety of the local residents and adjacent businesses, in the vicinity of 24th Avenue and Camelback Road. There are two major objectives of the study. The first is to develop a comprehensive list of known flooding problems impacting the study area to document need and necessity for the project, and public information. The second is to develop a plan to reduce the flooding for the area. The City of Phoenix funding for the project is included in its recently passed bond program. The District and Phoenix will cost share this project and responsibility will be established in a Memorandum of Understanding and future inter-governmental agreement. Phoenix will be the lead agency for this project.

FY 03:	\$150,000
FY 04:	\$250,000
FY 05:	\$3,100,000
FY 06:	\$0
FY 07:	\$0
5-Yr CIP:	\$3,500,000

Origination: FY 00/01 CIP Prioritization Procedure

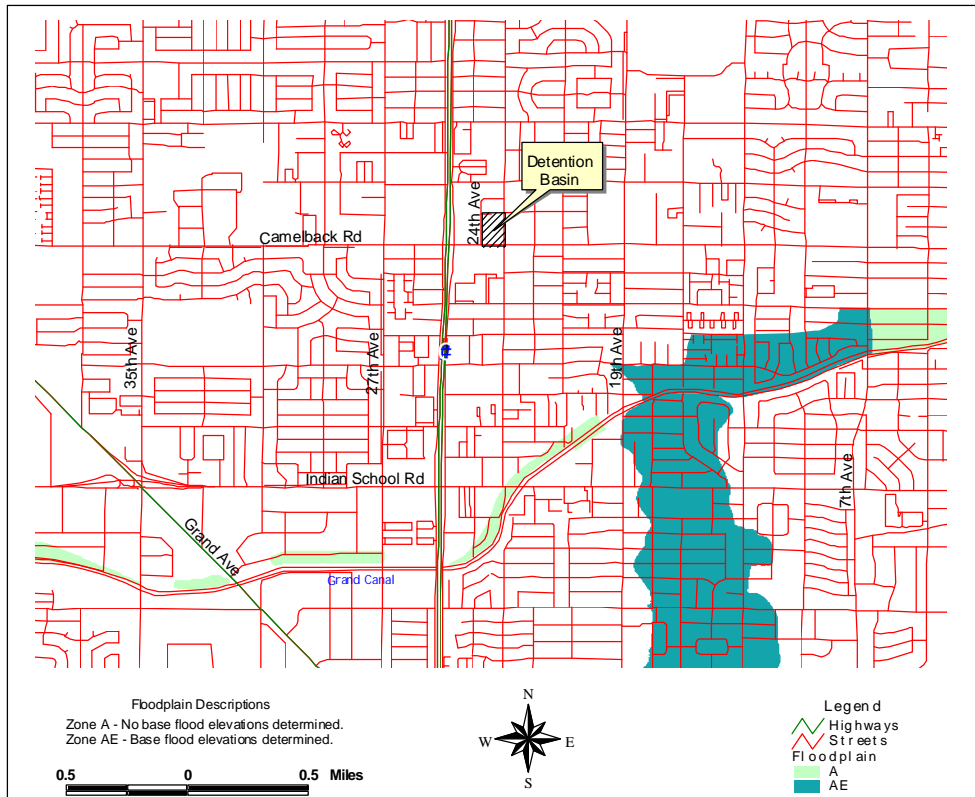
Authorization: n/a

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T2N R3E