Five-Year Capital Improvement Program

Fiscal Years 2016 to 2020





Flood Control District of Maricopa County, 2801 West Durango Street, Phoenix, Arizona 85009 (602) 506-1501

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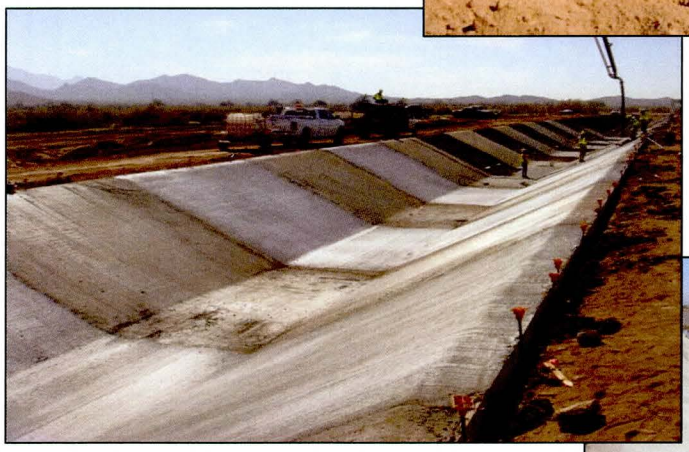
Loop 303 Outfall Channel
Completed During Fiscal Year 2015



Buckeye FRS No.1 Rehabilitation – Phase I
Completed During Fiscal Year 2015

Sonoqui Wash Channelization Phase IIIB
To Be Completed During Fiscal Year 2016

District Overview

1.1 Establishment

The State of Arizona formed the Flood Control District of Maricopa County (District) on August 3, 1959 in accordance with chapter 21 of title 48 of the Arizona Revised Statutes. The District is a political subdivision of the state, and has the powers, privileges and immunities generally given to incorporated cities and towns. The District is governed by a Board of Directors, and is funded primarily by a flood control tax levy assessed on real property within Maricopa County and by District cost-sharing agreements with project partners.

1.2 Structure

The Maricopa County Board of Supervisors serves as the District's Board of Directors, with the advice of a Flood Control Advisory Board comprised of citizens appointed by the Board of Directors, as well as ex-officio representatives of the City of Phoenix and the Salt River Project.

The District is comprised of five divisions, operating under the oversight of its Chief Engineer and General Manager: Administration; Operations & Maintenance; Engineering; Floodplain Management and Services; and Planning & Project Management, which oversees the District's capital projects.

1.3 Mission

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

Capital Improvement Program

2.1 Capital Improvement Program Overview

The District primarily accomplishes structural flood hazard mitigation through its five-year Capital Improvement Program – the revolving funding plan for accomplishing capital projects. Under this program, the District has participated in the construction of over 115 flood control structures. Guided by strategic goals and objectives, this plan drives design and construction of new infrastructure in concert with the District's planning activities, while it simultaneously addresses modification and replacement of existing infrastructure.

Capital projects typically account for approximately 65% to 70% of the District's annual expenditures.

The District manages its Capital Improvement Program as mandated by state statutes under the direction established by the following Board of Directors policy resolutions:

- FCD 2010R008, General Funding Policy
- FCD 93-03, Landscaping and Aesthetics Policy
- FCD 2006R003 & FCD 2006R003A, Floodprone Properties Assistance Program
- FCD 2009R003, FCD 2009R003A & FCD 2009R003B, Small Project Assistance Program

Prior to their inclusion in the Capital Improvement Program, most capital projects are evaluated under the Capital Improvement Program Prioritization Procedure (regional projects), Small Project Assistance Program (local projects) or Floodprone Property Assistance Program (floodprone property buyout). The District's Board controls aggregate funding for each of these programs.

2.2 Prioritization Procedure and Primary Capital Improvement Program

The District's Prioritization Procedure, initially implemented for the Fiscal Year 1995 budget cycle, serves as the primary annual mechanism for evaluating new proposed capital projects for possible funding.

The Prioritization Procedure promotes a balanced approach to the evaluation of proposed projects. The District attempts 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 also promote community development, protect natural habitats and maintain watercourse flow paths. The procedure favors projects that involve cost-sharing partnerships, allowing the District to best leverage limited financial resources.

All newly proposed projects are evaluated according to predetermined and weighted criteria by a Project Evaluation Committee comprised of senior representatives of the District's Engineering, Operations & Maintenance, Planning & Project Management, Floodplain Management & Services and Real Estate divisions. The committee develops its recommendations using a system that allocates points to individual projects based on specific criteria. Project Evaluation Committee recommendations are forwarded sequentially to the Chief Engineer and General Manager, the FCAB Budget Subcommittee and the FCAB for approval.

Evaluation criteria, last updated in February 2015, include:

- Agency Funding Commitment and Priority
- Flood Control / Drainage Master Plan Element
- Flooding Threat
- Level of Protection
- Area Protected
- Ancillary Benefits
- Level of Partner(s) Participation
- Operations and Maintenance Costs to the District

The District hosts periodic workshops to educate customer agencies on this procedure.

In addition to its use in evaluating new proposed projects, the Prioritization Procedure also governs maintenance and safety-related modifications to existing structures operated and maintained by the District. These modification projects may be recommended by the Chief Engineer and General Manager independent of the committee-based evaluation process.

The expenditure of funding toward a project recommended under the Prioritization Procedure will not occur until the District's Board of Directors has adopted a formal resolution authorizing the project to move forward. Following resolution adoption, for multilateral projects, District staff work with partnering municipalities to develop project IGAs that generally must be in place before project activity begins.

2.3 Small Project Assistance Program

The Prioritization Procedure is intended to address projects that provide regional solutions to regional flood hazards. The District has recognized that, particularly in urban areas, localized flooding hazards exist where major structural solutions would be impractical. The Small Project Assistance Program provides a mechanism for the District to commit funding, on a limited basis, to advancing localized solutions in these situations. This program, initially authorized in May 2009 under Resolution FCD 2009R003, funded a first round of local drainage construction projects through Fiscal Year 2011. Resolution FCD 2009R003A extended the Program indefinitely. Resolution FCD 2009R003B authorized the program to be implemented in Unincorporated Maricopa County.

The program terms restrict per-project District funding to $250,000 or 75% of project construction costs, whichever is less for municipalities. Submitting municipalities are solely responsible for project design, rights-of-way acquisition, utility relocations, construction management, and operations and maintenance, and are responsible for construction costs in excess of the District's contribution limit. For projects in Unincorporated Maricopa County, project funding is limited to $500,000.

Projects submitted under this program are evaluated each October, under an entirely objective method, based mainly on the frequency and severity of property flooding mitigated by the proposed project, and based on project implementation readiness. Individual project resolutions are not required for projects recommended under this program. IGA terms for these projects are non-negotiable, and IGAs are required to be in place in advance of expenditure of reimbursable project costs.

2.4 Floodprone Property Assistance Program

Similar to the Small Project Assistance Program, the Floodprone Property Assistance Program provides a tool to mitigate flood hazards where structural solutions are impractical.

Homeowners living in residences within delineated floodplains are eligible to apply for assistance under this program – applications are due each spring. Assistance generally takes the form of voluntary buyout, with the District purchasing the property at appraised market value. The District demolishes structures on purchased properties.

District Financing

3.1 Financial Philosophy

Most large government and private sector organizations that plan and construct large projects over extended periods of time borrow funds to finance these large projects, and then pay for them over many years. The District operates on a "pay-as-you-go" basis: the District's entire Capital Budget is funded from current revenues, and no borrowing takes place to finance capital projects. The District carries no debt load, and County taxpayers do not pay for interest charges on District structures. Since much of the District's revenues are spent on the capital projects, taxpayers are investing in the future of the County, their property and their safety.

3.2 Flood Control Tax Levy Overview

The majority of the District's revenue is derived from a flood control tax applied to secondary assessed real property valuations. The District's Board of Directors and the County's Board of Supervisors set the flood control tax rate and assessed property valuations, respectively. The flood control secondary assessed value, and as a result the District's revenue, is subject to economic influences. Maricopa County conducts annual market studies to determine individual property assessed values, and resulting tax levies generally lag these market studies by 18 to 30 months. So the market study conducted to determine property values in December 2011 will impact the District's tax revenue in Fiscal Year 2014. This simplifies the District's financial planning process, allowing accurate revenue projections for a two fiscal year period.

To prevent large fluctuations in property owners' tax levies, the Board of Directors established a 2% levy growth limit in 2006. The overall levy generated from property taxed in a given fiscal year cannot increase by more than 2%. The flood control tax rate is set to enforce this policy and is then applied to all property - including new or previously untaxed property. Large increases in secondary assessed values result in correspondingly large decreases in the flood control tax rate. Between Fiscal Year 2007 and Fiscal Year 2008, for example, the flood control tax rate decreased from $0.2047 to $0.1533 per $100 assessed value. This offset a 36% increase in the flood control secondary assessed value of property taxed in Fiscal Year 2007 and, when combined with tax revenue from newly constructed property, resulted in an overall tax levy increase of 5% when compared to the originally projected Fiscal Year 2007 tax revenue.

3.3 Flood Control Tax Levy History and Trends

Over the past 21 years, the flood control tax rate generally experienced a steady decline, while annual revenue slowly grew.

However, this growth trend reversed beginning in Fiscal Year 2011, consistent with the recent decline in the real estate market and lagging value assessments.

The District positioned itself to sustain operating capabilities during years of reduced tax revenues by developing a long-term revenue and expenditure forecasting model that identified the need to build fund balance reserves. The District executed recommendations of that plan, holding its capital budget fixed during periods of revenue growth and selling excess property.

In parallel, the District has worked to maximize the efficiency of its operations and its project delivery. While many public works agencies have turned to alternative project delivery mechanisms that trade cost-cutting competition for shorter contract durations (e.g., Design-Build and Construction-Manager at Risk), the District has taken advantage of the traditional bid-build competitive construction contracting on its non-Dam projects. In the recent economic environment, this has resulted in extraordinary cost savings, with District construction bids averaging 20% below engineers' estimates. The District is now beginning to utilize the Construction-Manager at Risk contracting method to reduce both cost and time growth of projects as competitive low bid pricing is increasing with the improved economic environment.

District Tax Rates by Fiscal Year

Fiscal Year	Tax Rate	Tax Revenue
2016	0.1592*	$50,133,102*
2015	0.1392	$43,660,332*
2014	0.1392	$39,842,985
2013	0.1780	$54,584,578
2012	0.1780	$62,401,172
2011	0.1489	$67,074,351
2010	0.1367	$72,659,843
2009	0.1367	$72,672,487
2008	0.1533	$68,973,117
2007	0.2047	$64,957,962
2006	0.2119	$62,733,411
2005	0.2119	$55,544,623
2004	0.2119	$50,050,367
2003	0.2119	$44,302,534
2002	0.2319	$44,622,753
2001	0.2534	$43,874,335
2000	0.2858	$43,992,461

*FY 2015 value does not reflect projected uncollected taxes; FY 2016 values are estimated/anticipated but not yet approved by the District's Board.

3.4 Project Cost Shares

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. In the 1990s, the District replaced larger government agencies as the primary source of technical expertise and financial resources for flood control in Maricopa County. To continue to address a wealth of regional flood control problems with its limited resource pool, the District has increasingly leveraged the financing of local project partners.

The District aims to fund one-half of a project's design and construction costs and obtain the remaining funding from benefitting municipalities and other public and private agencies. Where possible, the District additionally defers maintenance responsibilities to partner agencies.

Use of this Document

Project budget tables are presented for the District's five-year Capital Improvement Program, Fiscal Years 2016 through 2020. Fiscal Year 2016 figures represent the District's Capital Budget as adopted by the District's Board of Directors. Figures for Fiscal Years 2016 through 2020 are forecasted projections and may experience significant change, particularly for projects in the early stages of development.

Tax revenue trends may have an additional, substantial impact on project sequencing. The five-year Capital Improvement Program is a function of District revenue projections. The five-year program reflected in this booklet assumes that District revenue will support a $68 million Capital Budget for Fiscal Year 2016, a $63 million budget for Fiscal Year 2017, a $49 million budget for Fiscal Year 2018 and a $34 million budget Fiscal Years 2019 and 2020. Additional revenues generated by excess land sales, intergovernmental agreements or unforeseen property value increases may allow for additional expenditures; revenue lags tied to declines in property values or a lack of contributing project partners may lead to a corresponding decrease in the District's Capital Budget for a given fiscal year.

Listed project totals are totals for this five-year period; they do not represent total historical or anticipated project costs.

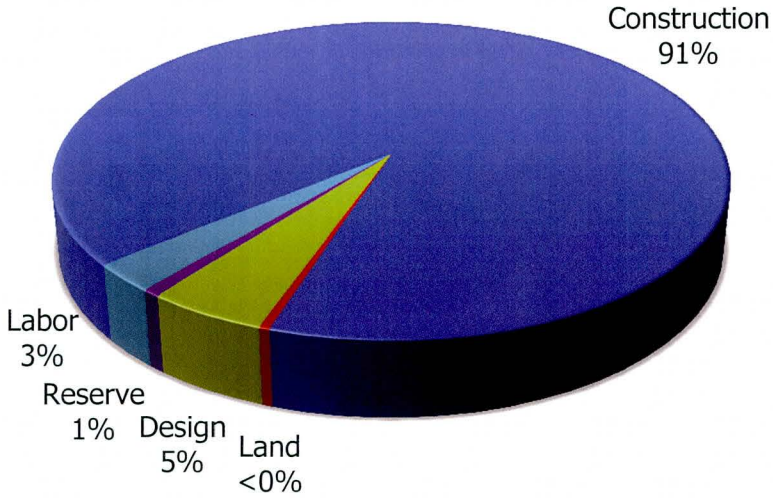
Included with each project description is the name and contact information for the responsible project manager. Project managers may also be contacted through the general District switchboard at 602-506-1501.

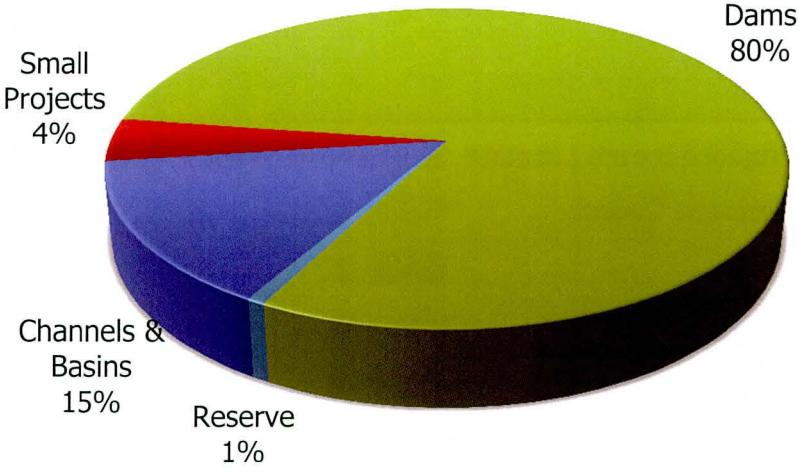
This report is available at: www.fcd.maricopa.gov/Projects/PPM/cip.aspx, and project status updates are published at www.fcd.maricopa.gov/Projects/PPM/projStruct.aspx.

Fiscal Year 2016-2020
Capital Improvement Program Budget Summary

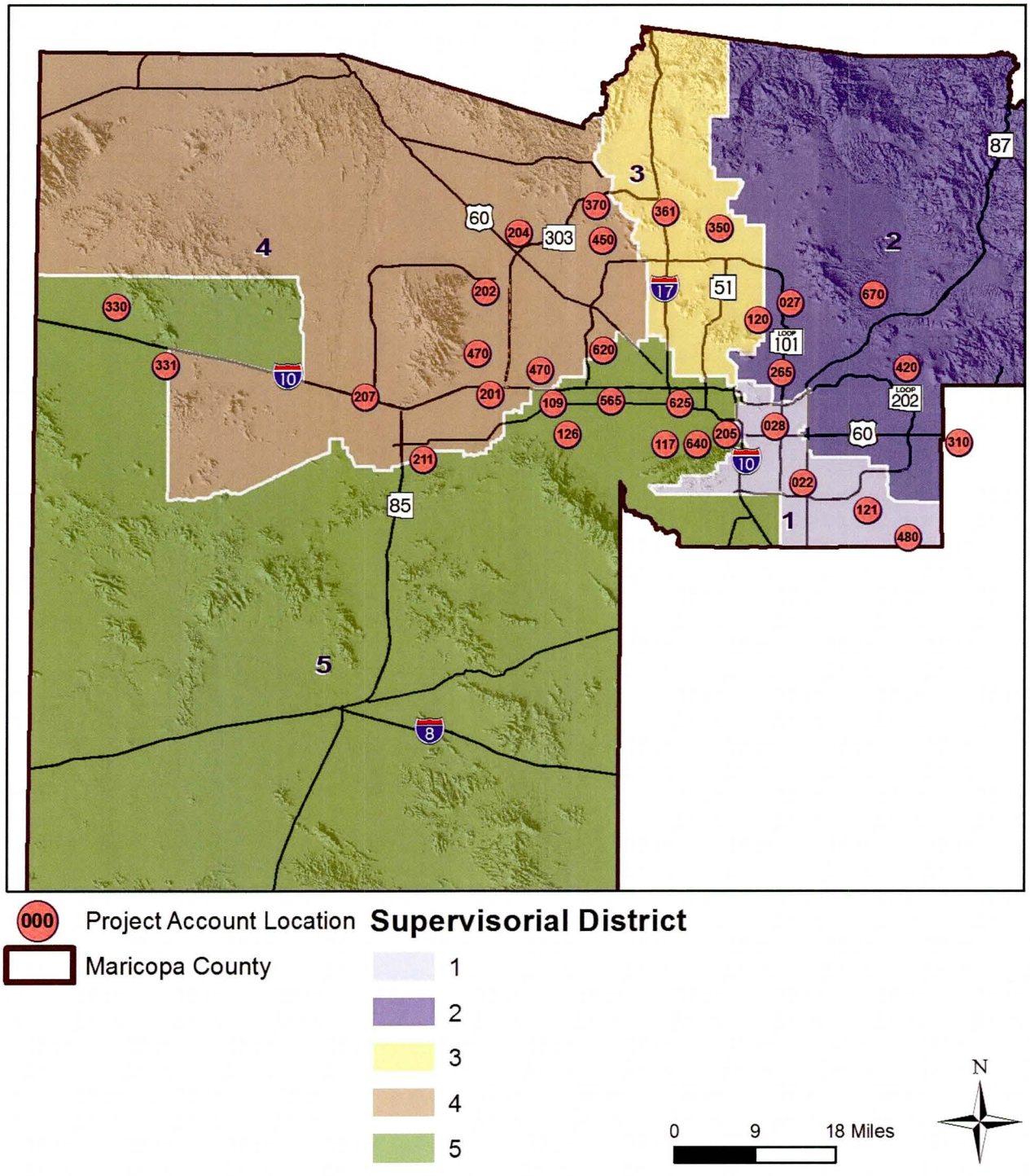
Page	Bin	Project	FY16	FY17	FY18	FY19	FY20	5-Year
10	FCIP	Primary Capital Improvement Program and Reserve	65,000,000	60,700,000	46,700,000	31,700,000	35,000,000	239,100,000
96	F699	Small Projects Assistance Program	3,000,000	2,000,000	2,000,000	2,000,000	2,000,000	11,000,000
98	F700	Floodprone Properties Acquisition	0	300,000	300,000	300,000	300,000	1,200,000
		Capital Improvement Program Total	68,000,000	63,000,000	49,000,000	34,000,000	34,000,000	248,000,000

Fiscal Year 2016 Capital Budget
Funding Distribution Summary





Fiscal Year 2016-2020
Capital Improvement Program
Project Account Location Guide



Fiscal Year 2016-2020
Capital Improvement Program

Primary Capital Improvement Program

Page	Map ID	PCN	Project	FY16	FY17	FY18	FY19	FY20	5-Year
10	017	017.06.30	ALERT2 System Upgrade Project	20,000	2,000	260,000	0	0	282,000
12	022	022.01.32	Central Chandler Storm Drain Improvements	2,000	2,000	2,000	2,000	2,000	10,000
14	028	028.XX.X1	Loma Vista Corridor Drainage Improvements	0	2,000	2,000	5,000	5,000	14,000
16	109	109.02.30	Agua Fria River Levee Safety Improvements	2,000	2,000	2,000	2,000	2,000	10,000
18	117	117.09.32	27th Avenue & South Mountain Avenue Basin	210,000	3,867,000	100,000	0	0	4,177,000
20	120	120.XX.X1	Berneil Channel Modifications	0	0	2,000	3,000	3,000	8,000
22	121	121.03.32	Rittenhouse Basin	2,000	2,000	2,000	3,000	3,000	12,000
24	121	121.03.33	Chandler Heights Basin	10,000	10,000	10,000	10,000	10,000	50,000
26	121	121.XX.X1	East Maricopa Floodway Low Flow Channel	0	0	0	0	20,000	20,000
28	126	126.01.31	Tres Rios	3,000	0	0	0	0	3,000
30	201	201.01.31	White Tanks FRS No.4 Outlet	2,000	2,000	5,000	4,670,000	7,200,000	11,879,000
32	201	201.02.31	White Tanks FRS No.4 Rehabilitation	9,875,000	12,935,000	0	0	0	22,810,000
34	202	202.02.31	McMicken Dam Rehabilitation	1,285,000	1,208,000	8,920,000	7,750,000	8,575,000	27,738,000
36	204	204.01.30	McMicken Dam Outfall Channel	760,000	422,000	5,000	5,000	5,000	1,197,000
38	205	205.01.30	Guadalupe FRS Rehabilitation	2,000	2,000	2,000	3,000	820,000	829,000
40	207	207.01.31	Buckeye FRS No.1 Rehabilitation	24,715,000	10,305,000	0	0	0	35,020,000
42	211	211.03.31	Downtown Buckeye Regional Basin & Storm Drain	2,000	2,000	2,000	3,000	28,000	37,000
44	211	211.05.30	Watson Drainage System	770,000	790,000	1,075,000	1,575,000	1,740,000	5,950,000
46	265	265.01.30	Granite Reef Wash Drainage Improvements	10,000	15,000	35,000	35,000	2,965,000	3,060,000
48	310	310.01.30	Powerline, Vineyard, Rittenhouse FRS Rehabilitation/Replacement	17,875,000	30,220,000	34,825,000	7,168,000	0	90,088,000
50	330	330.01.30	Harquahala FRS Erosion Hazard Reduction	2,000	2,000	2,000	3,000	3,000	12,000
52	331	331.01.30	Saddleback FRS Modifications	2,000	2,000	2,000	3,000	3,000	12,000
54	350	350.01.30	Cave Buttes Dam Modifications	765,000	390,000	2,000	5,215,000	10,000	6,382,000
56	361	361.01.30	I-17/Skunk Creek Land Rights Acquisition and Access Improvements	2,000	2,000	2,000	210,000	0	216,000
58	370	370.01.30	New River Dam Outlet Improvements	5,000	2,000	2,000	3,000	3,000	15,000
60	420	420.04.31	Oak Street Detention Basin and Storm Drain	2,000	2,000	2,000	3,000	3,000	12,000
62	420	420.05.31	Ellsworth Road & McKellips Road Drainage System	2,000	2,000	2,000	3,000	3,000	12,000
64	450	450.07.31	115th Avenue/Union Hills Drive Drainage Improvements	3,820,000	50,000	1,075,000	2,510,000	75,000	7,530,000
66	470	470.13.31	Bullard Wash (Phase II)	5,000	2,000	5,000	3,000	3,000	18,000
68	470	470.14.31	Loop 303 Outfall Channel	325,000	0	0	0	0	325,000
70	470	470.15.32	Northern Parkway Drainage Improvements Phase II	10,000	10,000	12,000	1,010,000	2,015,000	3,057,000
72	470	470.16.30	Luke Air Force Base Flood Mitigation Improvements	4,000	2,000	2,000	3,000	7,000	18,000
74	480	480.04.32	Sonoqui Wash Channelization (Chandler Heights to Crismon)	2,000	2,000	2,000	3,000	3,000	12,000
76	480	480.04.34	Sonoqui Wash Channelization (Main Branch)	2,085,000	0	0	0	0	2,085,000
78	565	565.04.32	Durango Regional Conveyance Channel (107th Ave. to Agua Fria)	2,000	2,000	2,000	3,000	3,000	12,000
80	565	565.04.33	Durango Regional Conveyance Channel (75th Ave. to 107th Ave.)	2,000	2,000	2,000	3,000	4,225,000	4,234,000
82	565	565.04.35	Van Buren Street Channel (99th Avenue to Agua Fria River)	2,000	5,000	48,000	50,000	2,680,000	2,785,000
84	620	620.03.34	Bethany Home Road Storm Drain (79th Avenue to 59th Avenue)	2,000	2,000	2,000	3,000	3,000	12,000
86	625	625.01.30	Downtown Phoenix Storm Drain Improvements	55,000	54,000	0	0	0	109,000
88	625	625.02.32	Arcadia Drive and Camelback Road Storm Drain Improvements	2,000	2,000	2,000	3,000	3,000	12,000
90	640	640.XX.X1	Circle K Park Detention Basin and Storm Drain	0	0	0	0	10,000	10,000
92	670	670.01.30	Ashbrook Wash Improvements	1,825,000	2,000	0	0	0	1,827,000
94	698	698.10.30	East Maricopa Floodway Maintenance Road Paving	5,000	5,000	10,000	10,000	10,000	40,000
NA	NA	FCPR	Flood Control Project Reserve	529,000	370,000	275,000	1,425,000	1,260,000	3,859,000
			Subtotal	65,000,000	60,700,000	46,700,000	31,700,000	31,700,000	235,800,000

Small Projects Assistance Program & Floodprone Properties Acquisition

Page	Account	Program	FY16	FY17	FY18	FY19	FY20	5-Year
96	F699	Small Projects Assistance Program	3,000,000	2,000,000	2,000,000	2,000,000	2,000,000	11,000,000
98	F700	Floodprone Properties Acquisition	0	300,000	300,000	300,000	300,000	1,200,000
		Subtotal	3,000,000	2,300,000	2,300,000	2,300,000	2,300,000	12,200,000

ALERT2 System Upgrade

PCN: 017.06.30

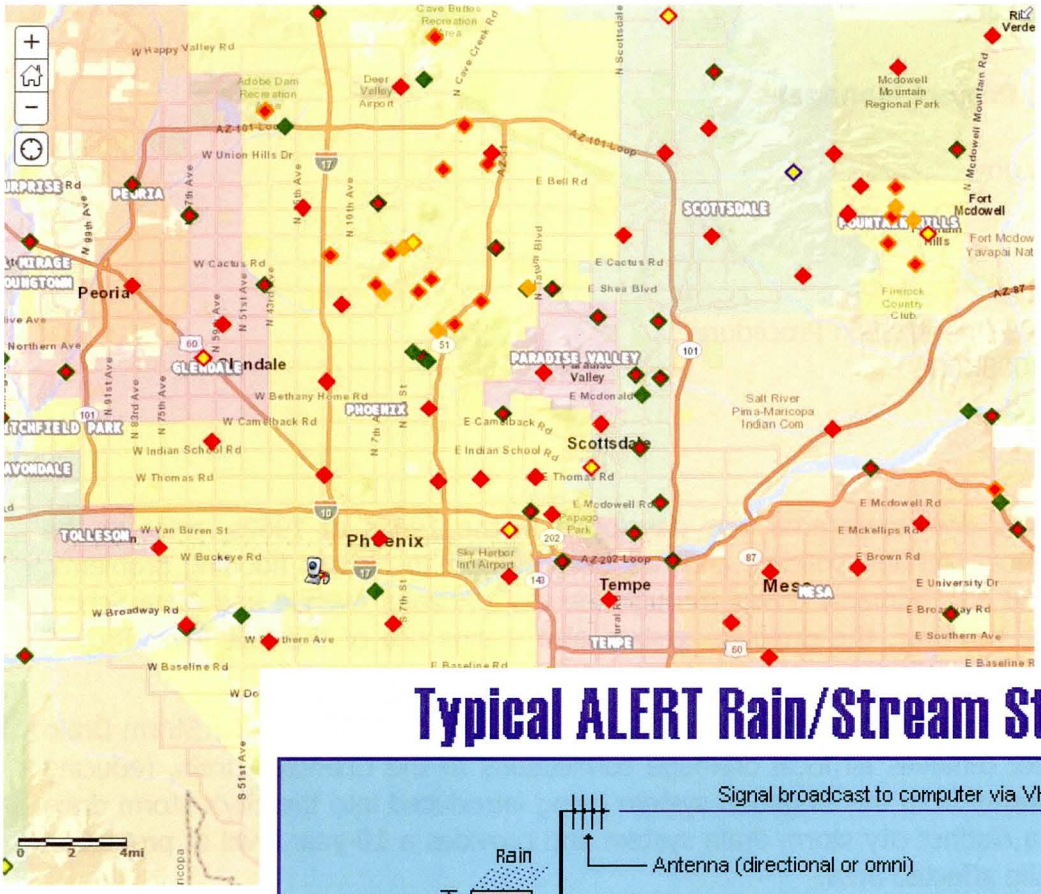
Patrick Schafer, P.E., Project Manager
602-506-2206
patrickschafer@mail.maricopa.gov

Districts: 1,2,3,4 & 5
Jurisdiction: Maricopa County
Origin: FY 2014 Prioritization Procedure
Resolution: FCD 2013R004
Agreement: N/A

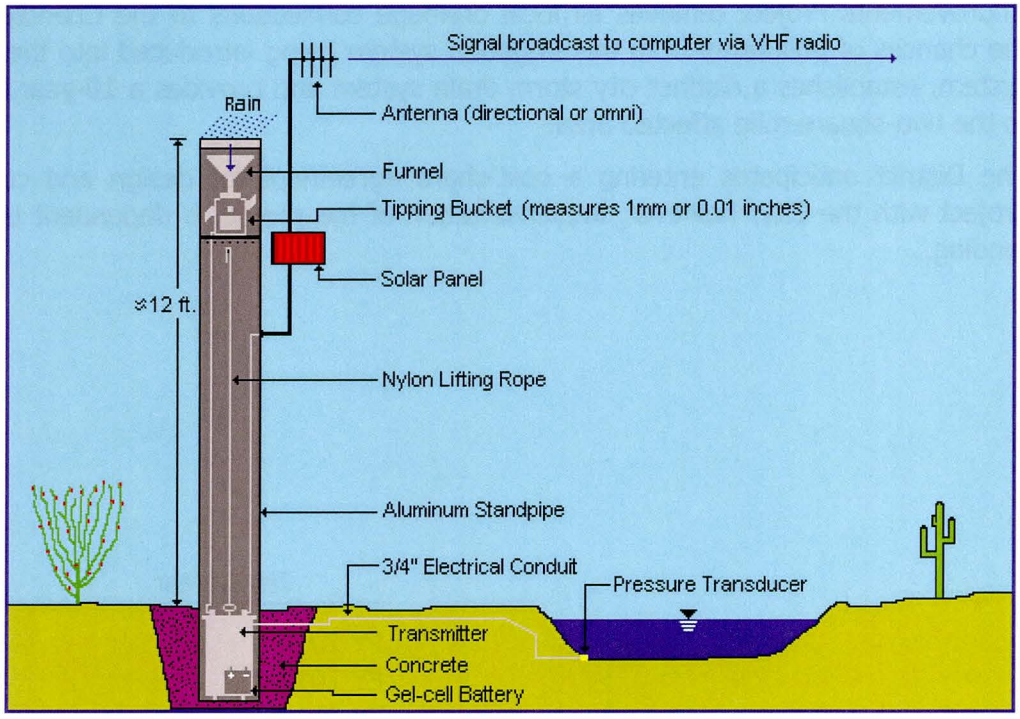
The Flood Control District of Maricopa County operates a 24-hour rain, stream and weather gage network which provides "real-time" information to the County and many other agencies about rainfall, floods and weather conditions in Maricopa County. This network operates in the National Weather Service ALERT (Automated Local Evaluation in Real Time) format and is commonly referred to as an ALERT system. The ALERT system uses "automatic" telemetry gages for data collection. Data is also used to reconstruct storm events in order to show the origin of flooding problems and to provide data for use in floodplain studies, computer modeling of watersheds and design of future flood control structures.

ALERT2 is the new standard protocol designed to replace the existing ALERT. ALERT2 provides a graceful transition of real-time data collection systems from providing slow, lean, error-prone environmental data to receiving fast, information-rich, error-free knowledge about events in the real world. It differs from ALERT in that it is much faster, carries more information, and operates virtually error free. Using a channel sharing technique called TDMA, where each transmitter has its own brief time slot in which to transmit, the message contention and data loss problems of ALERT can be minimized. It has a large enough ID space to eliminate the ID assignment problems common in some areas of the country.

Fiscal Year	Budget
FY 2016	$20,000
FY 2017	$2,000
FY 2018	$260,000
FY 2019	$0
FY 2020	$0
5-Year Program	$282,000



Typical ALERT Rain/Stream Station



Central Chandler Storm Drain Improvements

PCN: 022.01.32

Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

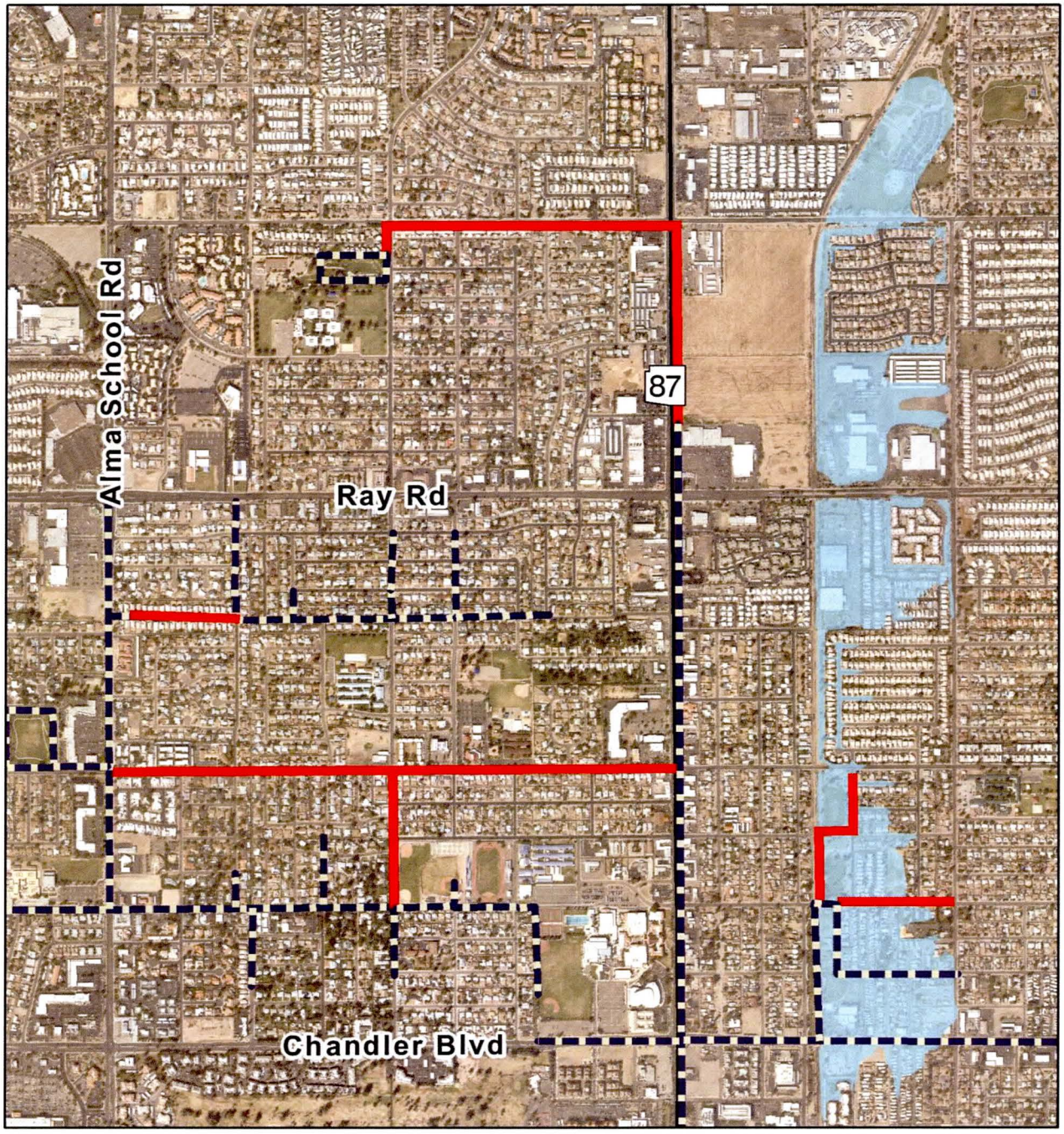
District: 1
Jurisdiction: Chandler
Origin: FY 2009 Prioritization Procedure
Resolution: FCD 2008R004
Agreement: Pending

The City of Chandler's downtown area was developed in the 1940s to 1960s, prior to the adoption of city on-site retention policies, and has been subject to historic flooding problems. The area is largely flat and primarily drains through the city's Arizona Avenue and Alma School storm drain systems; however, the drainage system also makes use of the Salt River Project "Chandler Drain" irrigation tailwater system.

Recommended by the city's Storm Water Master Plan Update, the Central Chandler Storm Drain Improvements Project removes all local drainage connections to the Chandler Drain, reducing the chances of pollutants from this irrigation system being introduced into the city's storm drain system, establishes a distinct city storm drain system and provides a 10-year level of protection to the two-square-mile affected area.

The District anticipates entering a cost-share agreement for design and construction of the project with the City; however, implementation of the project is dependent upon availability of funding.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$2,000
FY 2020	$2,000
5-Year Program	$10,000



Central Chandler Storm Drain Improvements

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

0 800 1,600 Feet

N

Loma Vista Corridor Drainage Improvements

PCN: 028.XX.X1

Burke Lokey, P.E., Project Manager
602-506-0867
BurkeLokey@mail.maricopa.gov

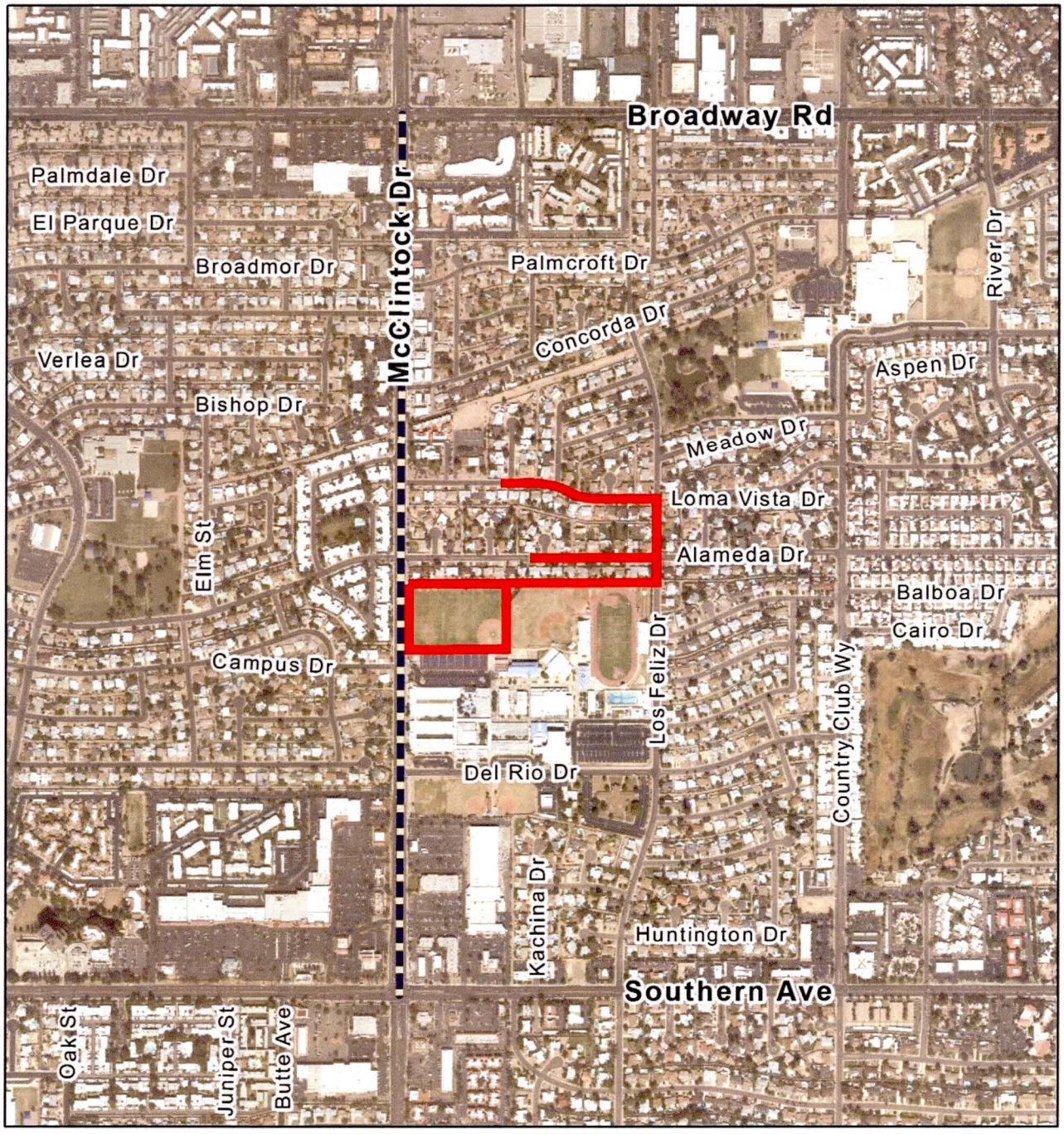
District: 1
Jurisdiction: Tempe
Origin: FY 2015 Prioritization Procedure
Resolution: Pending
Agreements: Pending

This project was identified in the Broadway/Rural Drainage Master Plan that was completed in 2013. The Loma Vista Corridor is bound on the west by McClintock Drive, on the north by Loma Vista Drive, on the east by Los Fieliz Drive and on the south by the McClintock High School campus. Twenty one (21) homes are identified to be inundated in a 100-year rain event. Historic flooding has occurred in the Loma Vista neighborhood. The project area is primarily single family residential and is characterized by minimal relief with slopes of less than 0.1%.

The project will provide protection to the 100-year rain event by constructing storm drains in Loma Vista, Alameda and Los Feliz Drives with an outfall into an expanded detention basin at the NW corner of McClintock High School. However, lately the project team is reviewing water conservation and low impact development alternatives such as on-site retention with water reuse storage at the school site, or use of rain gardens, cisterns, and infiltration trenches throughout the neighborhood.

Advancement of the project to final design and construction is largely dependent upon the availability of funding and the successful negotiation of an intergovernmental agreement between the District and City of Tempe.

Fiscal Year	Budget
FY 2016	$0
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$5,000
FY 2020	$5,000
5-Year Program	$14,000



Loma Vista Corridor Drainage Improvements

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 500 1,000 Feet

Agua Fria River Levee Safety Improvements

PCN: 109.02.30

Greg Jones, P.E., Project Manager
602-506-5537
glj@mail.maricopa.gov

District: 5
Jurisdiction: Avondale
Origin: FY 2005 Prioritization Procedure
Resolution: FCD 2008R009
Agreement: FCD 2008A010

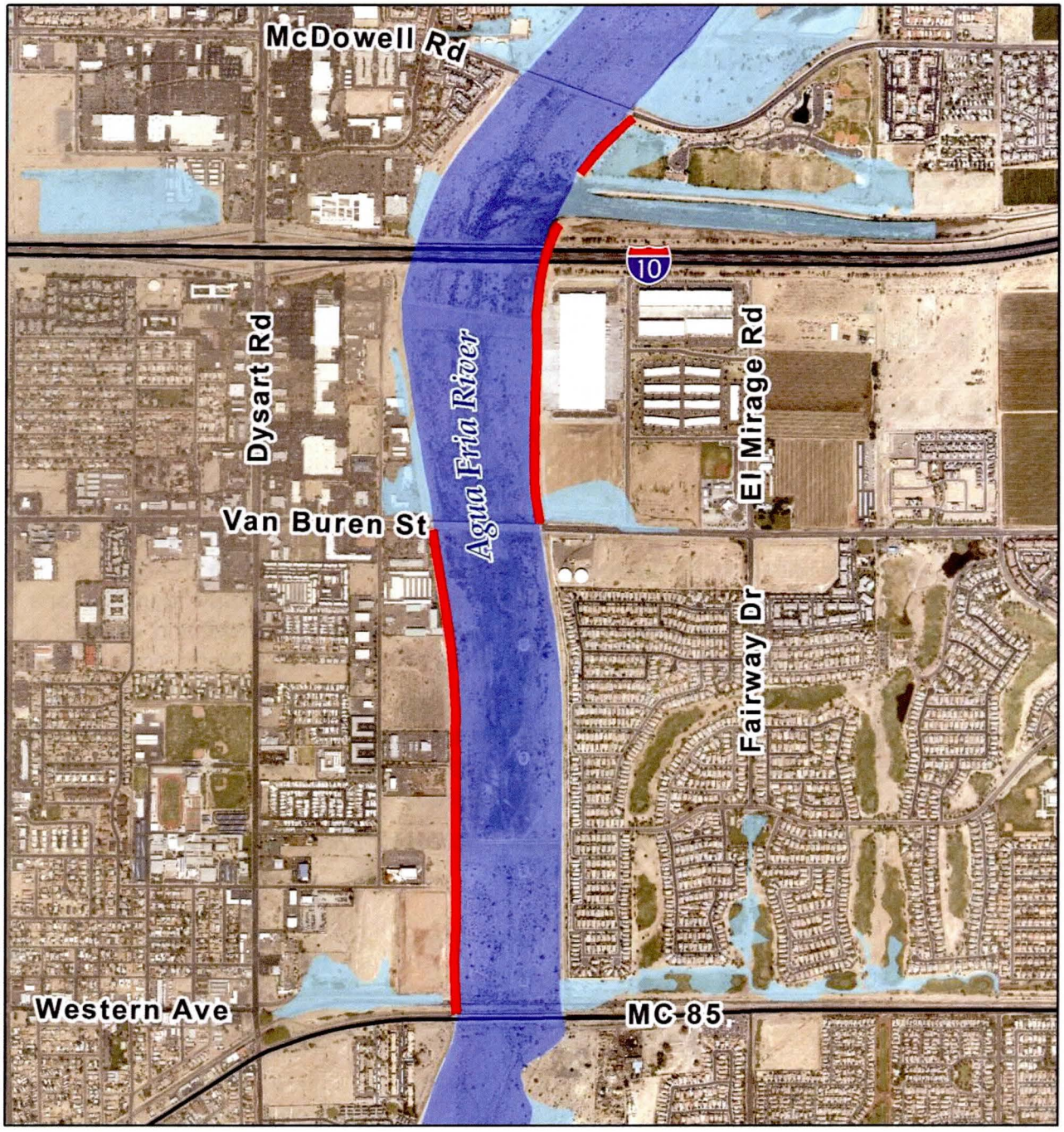
Channelization of the Agua Fria River, completed by the District and the U.S. Army Corps of Engineers in the 1980s, included construction of soil cement levees. The District entered IGA 2001A009 with the City of Avondale, granting the city a non-exclusive easement over certain District fee-held land, including channelized portions of the Agua Fria River, to facilitate construction of a city trail system.

Maintenance of the Agua Fria River levees poses a hazard to District personnel, as the levees were originally constructed without pipe rail fall protection, and a trail atop the levees would pose a similar hazard to the public.

IGA FCD 2008A009 establishes a cost share between the city and the District for installation of pipe rail along levees between Buckeye Road and McDowell Road. The District's cost share is capped at $440,000, including a per-foot ceiling.

The city, under the IGA, will act as lead agency for installation of the pipe rail, and will assume operation and maintenance responsibility over the installed railing. The project's construction schedule is primarily dependent upon funding availability.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$2,000
FY 2020	$2,000
5-Year Program	$10,000



Agua Fria River Levee Safety Improvements

Floodway

Floodplain

Aerial Photography - Fall 2013

0 900 1,800 Feet

N

27th Avenue & South Mountain Avenue Detention Basin

PCN: 117.09.32

Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

District: 5
Jurisdiction: Phoenix
Origin: FY 2006 Prioritization Procedure
Resolution: FCD 93-18
Agreement: FCD 2011A002 and FCD 2011A002A

The District's South Phoenix Drainage Improvement Project Feasibility Study evaluated the watershed generally bounded by 43rd Avenue to the west, Central Avenue to the east, South Mountain Avenue to the south and the Salt River to the north. The study identified and compared alternative solutions to mitigate flooding hazards in the watershed and selected a recommended plan. Plan elements included several detention basins and a storm drain system to provide an outfall to the Salt River.

The plan's recommended basin located at 27th Avenue and South Mountain Avenue will discharge into the previously-constructed storm drain system and, combined with collective plan features, will address 100-year storm water flows in the area.

Project design is complete. Construction is scheduled to begin during FY 2016 with the City of Phoenix as the project lead.

Fiscal Year	Budget
FY 2016	$210,000
FY 2017	$3,867,000
FY 2018	$100,000
FY 2019	$0
FY 2020	$0
5-Year Program	$4,177,000

27th Avenue & South Mountain Avenue Basin

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 500 1,000 Feet

Berneil Channel Modifications

PCN: 120.XX.X1

Don Rerick, P.E., Project Manager
602-506-4878
djr@mail.maricopa.gov

Districts: 2, 3
Jurisdiction: Paradise Valley
Origin: FY 2010 Prioritization Procedure
Resolution: Pending
Agreement: Pending

The Berneil Channel is operated and maintained by the Town of Paradise Valley and generally conveys storm water between Scottsdale Road at Mountain View Road southwest to the Indian Bend Wash at approximately the 66th Street alignment. The channel is undersized for the 100-year event; in sections, it is unable to contain events of a 2-year return frequency.

The town submitted a project for modification of the Berneil Channel to the District's prioritization procedure, and the project was recommended. Ideally, a modification project would increase channel capacity to convey the 100-year event, but funding constraints may limit capacity improvements to address 10-year events.

The Town of Paradise Valley has completed a preliminary project study. Advancement of the project to final design and construction is dependent upon the availability of funding and the successful negotiation of an Intergovernmental Agreement between District and the town.

Fiscal Year	Budget
FY 2016	$0
FY 2017	$0
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$8,000

Berneil Channel Modifications

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 750 1,500 Feet

Rittenhouse Basin

PCN: 121.03.32

Don Rerick, P.E., Project Manager
602-506-4878
djr@mail.maricopa.gov

District: 1
Jurisdiction: Gilbert
Origin: FY 2001 Prioritization Procedure
Resolution: FCD 2001R006
Agreement: FCD 2004A007

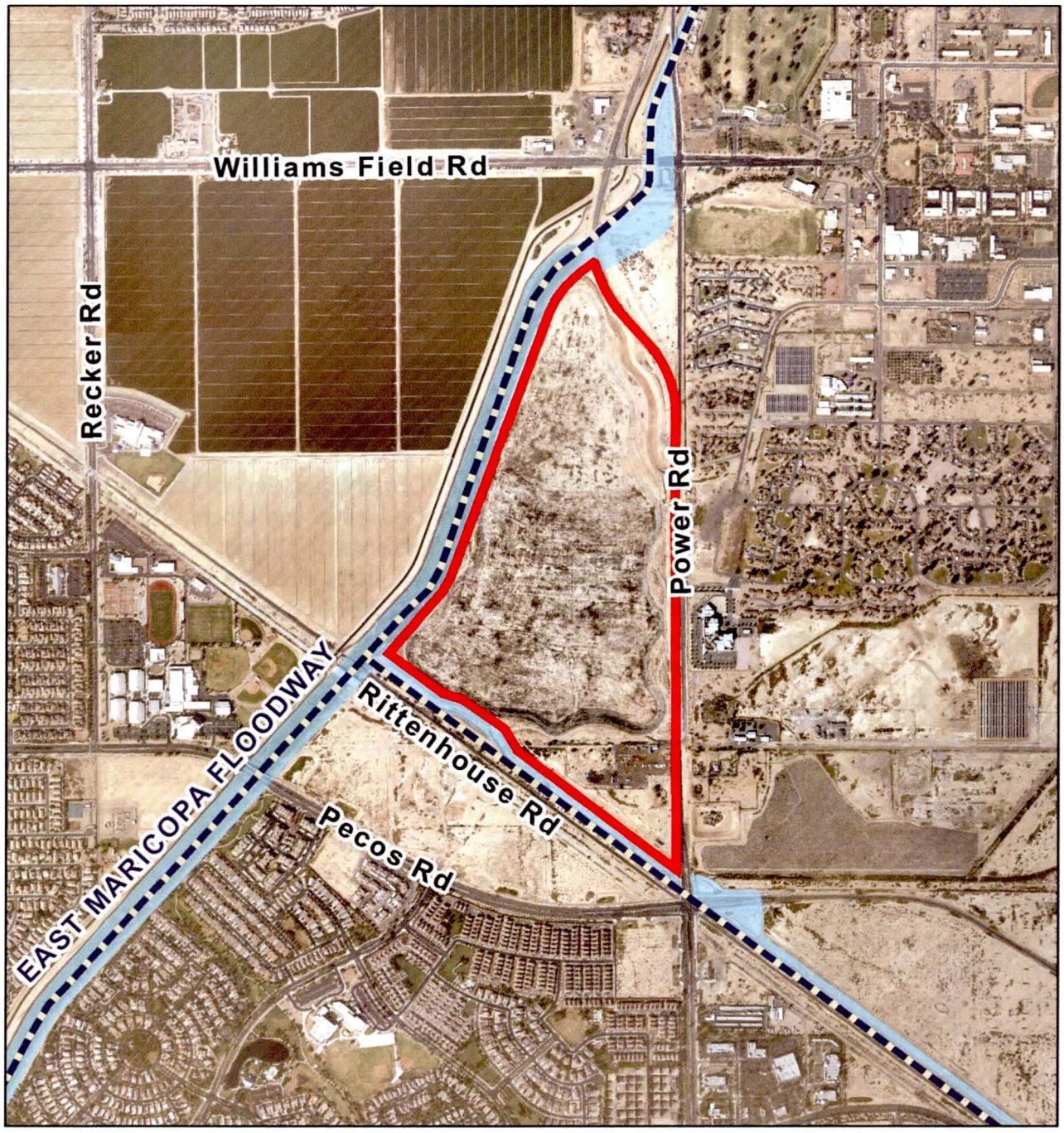
The U.S. Soil Conservation Service (now Natural Resources Conservation Service) completed the East Maricopa Floodway (EMF) in 1989 in partnership with the District and others. This 27-mile long earthen channel runs parallel to the Roosevelt Water Conservation District canal from north of Brown Road to Hunt Highway, and continues in a southwesterly direction through the Gila River Indian Community to an outlet at the Gila River. The EMF is a principal flood control feature for the east valley, intercepting floodwater flow impacting the Buckhorn-Mesa, Apache Junction-Gilbert and Williams-Chandler watersheds. The EMF is operated and maintained by the District, with the exception of segments that run through privately owned golf courses.

The District initiated a study to examine EMF capacity following development of the adjacent area and identified drainage and flooding issues associated with the 15,000 cubic-feet-per-second (cfs) 100-year flow exceeding the EMF's 8,500 cfs capacity. The study proposed two large off-line detention basins – the Rittenhouse and Chandler Heights basins – to mitigate EMF flows.

In April 2009, the Town of Gilbert purchased a recreational use easement on the 160-acre basin site, generating approximately $11 million in District revenue and partially offsetting the project's cost.

Excavation of the Rittenhouse Basin is complete. The town has assumed operation and maintenance obligations and will largely fund recreational amenities in the future. The District will contribute funding equal to its foregone aesthetic enhancement costs.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$12,000



Rittenhouse Basin

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 750 1,500 Feet

Chandler Heights Basin

PCN: 121.03.33

Don Rerick, P.E., Project Manager
602-506-4878
djr@mail.maricopa.gov

District: 1
Jurisdiction: Gilbert
Origin: FY 2001 Prioritization Procedure
Resolution: FCD 2001R006
Agreement: FCD 2004A007

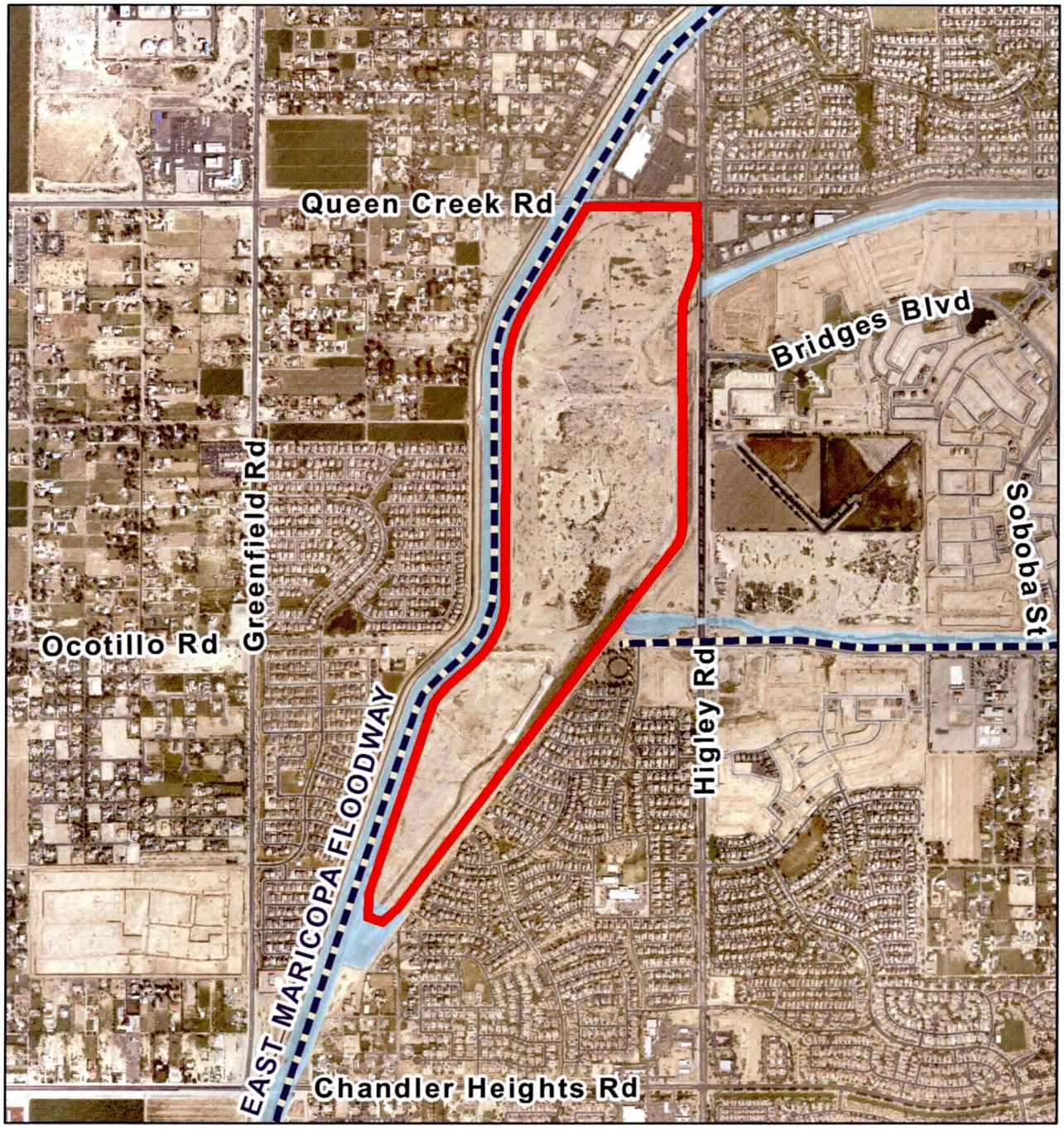
The U.S. Soil Conservation Service (now Natural Resources Conservation Service) completed the East Maricopa Floodway (EMF) in 1989 in partnership with the District and others. This 27-mile long earthen channel runs parallel to the Roosevelt Water Conservation District canal from north of Brown Road to Hunt Highway, and continues in a southwesterly direction through the Gila River Indian Community to an outlet at the Gila River. The EMF is a principal flood control feature for the east valley, intercepting floodwater flow impacting the Buckhorn-Mesa, Apache Junction-Gilbert and Williams-Chandler watersheds. The EMF is operated and maintained by the District, with the exception of segments that run through privately owned golf courses.

The District initiated a study to examine EMF capacity following development of the adjacent area and identified drainage and flooding issues associated with the 15,000 cubic-feet-per-second (cfs) 100-year flow exceeding the EMF's 8,500 cfs capacity. The study proposed two large off-line detention basins – the Rittenhouse and Chandler Heights basins – to mitigate EMF flows.

The Chandler Heights Basin will reduce flows from the Queen Creek and Sonoqui washes into the EMF. Construction is being accomplished in five phases. Design and the first two phases of construction have been completed. Future phases of construction will involve excavation of an additional 3 million cubic yards of material. These future phases are on hold pending demand for excavated materials and the timing of Ocotillo Road bridge construction.

Although basin construction is being accomplished by the District alone, it is anticipated that the Town of Gilbert will purchase an easement on the completed basin site, fund recreational amenities, and assume certain operation and maintenance obligations in the future.

Fiscal Year	Budget
FY 2016	$10,000
FY 2017	$10,000
FY 2018	$10,000
FY 2019	10,000
FY 2020	$10,000
5-Year Program	$50,000



Chandler Heights Basin

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 1,000 2,000 Feet

East Maricopa Floodway Low Flow Channel

PCN: 121.XX.X1

Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

District: 1, 2
Jurisdiction: Gilbert, Mesa
Origin: FY 2011 Prioritization Procedure
Resolution: Pending
Agreement: None

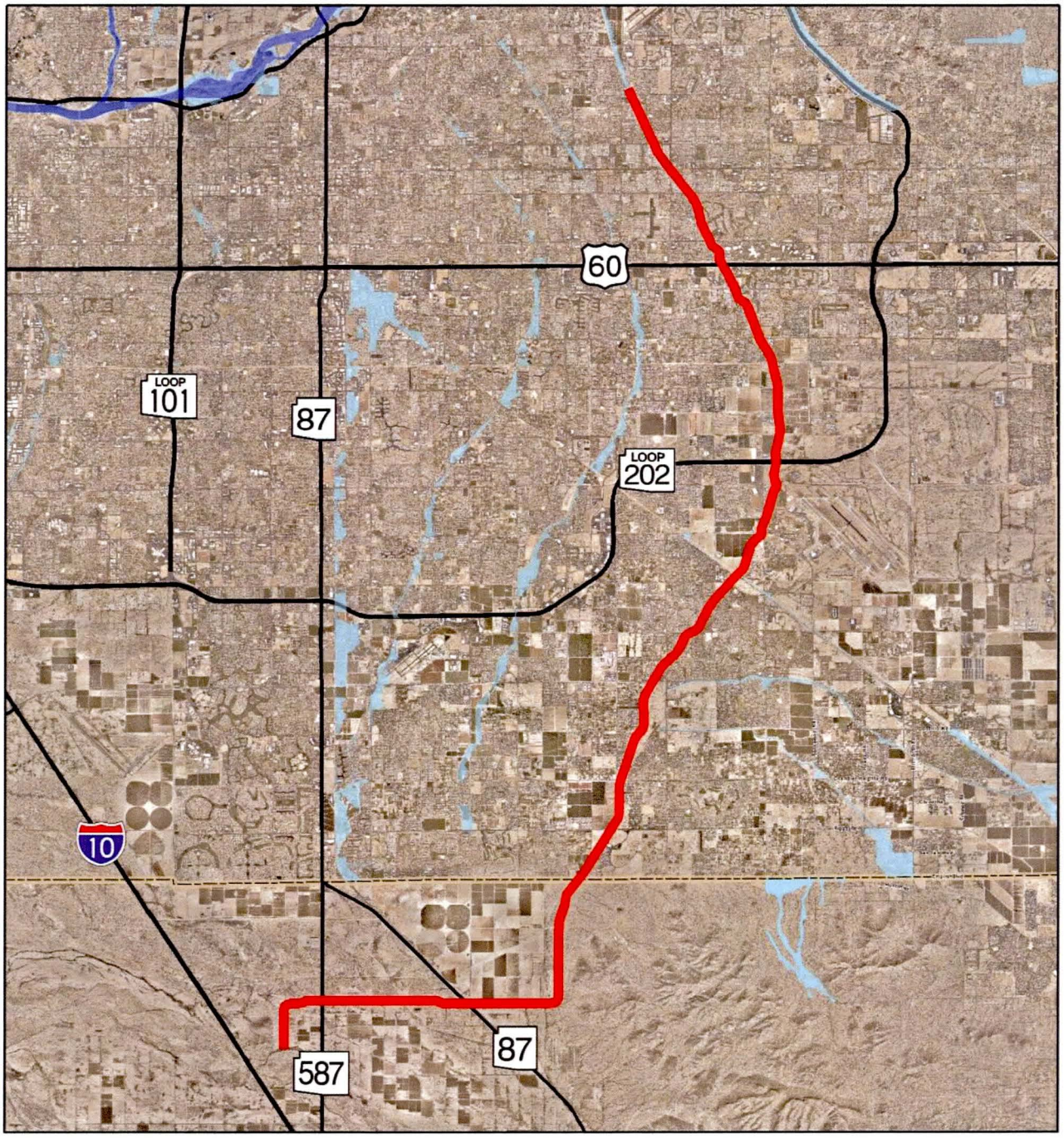
The U.S. Soil Conservation Service (now Natural Resources Conservation Service) completed the East Maricopa Floodway (EMF) in 1989 in partnership with the District and others. This 27-mile long earthen channel runs parallel to the Roosevelt Water Conservation District canal from north of Brown Road to Hunt Highway, and continues in a southwesterly direction through the Gila River Indian Community to an outlet at the Gila River. The EMF is a principal flood control feature for the east valley, intercepting floodwater flow impacting the Buckhorn-Mesa, Apache Junction-Gilbert and Williams-Chandler watersheds. The EMF is operated and maintained by the District, with the exception of segments that run through privately owned golf courses.

Due to the topography of the area, the EMF has a particularly shallow slope. Combined with the EMF's earthen bottom, this causes nuisance ponding along much of the structure. In addition to causing mosquito control issues, this creates maintenance difficulties, as maintenance equipment is unable to function in the saturated channel bottom.

The District is attempting to address these issues through comparatively minor maintenance modifications; however, should the issues remain, the District would construct a concrete low flow channel along much of the length of the EMF.

Project schedule is dependent upon District funding availability, with construction scheduled outside the five-year Capital Improvement Program.

Fiscal Year	Budget
FY 2016	$0
FY 2017	$0
FY 2018	$0
FY 2019	$0
FY 2020	$20,000
5-Year Program	$20,000



East Maricopa Floodway Low Flow Channel

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 9,000 18,000 Feet

Tres Rios

PCN: 126.01.31

Don Rerick, P.E., Project Manager
602-506-4878
djr@mail.maricopa.gov

District: 5
Jurisdiction: Phoenix, Avondale, Unincorporated Maricopa County
Origin: U.S. Army Corps of Engineers Feasibility Study
Resolution: FCD 2004R005
Agreement: FCD 2004A017

The Tres Rios Project is a federal project under the auspices of the U.S. Army Corps of Engineers and sponsored locally by the City of Phoenix.

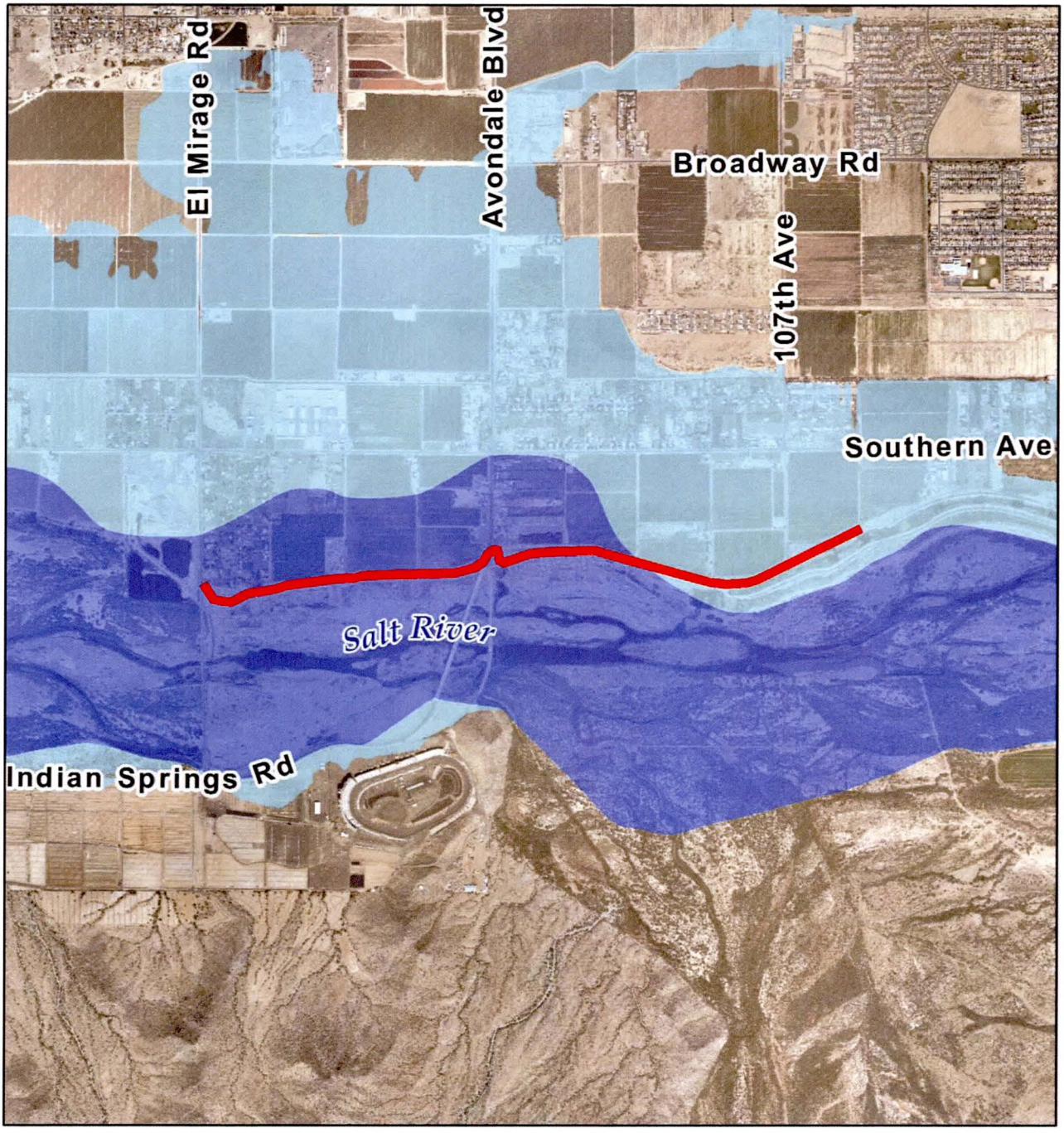
The project is located along the Salt and Gila rivers, from about 83rd Avenue to the Agua Fria River, and consists of the restoration of habitat within and along the river. It involves construction of wetlands; open water marshes and riparian corridors; and a flood control levee along the north bank of the river from approximately 105th Avenue to El Mirage Road to remove property and homes along the river from the floodplain.

The District's participation, in accordance with the project resolution and IGA, includes design review and coordination, $2 million in levee construction funding, operation and maintenance of the levee and contribution of District-owned land required for the project.

The levee design and construction were segmented in two phases – from 105th to 115th Avenues, and from 115th Avenue to El Mirage Road.

Construction is complete. A Letter of Map Revision revising the flood boundary and floodway has been prepared by the District and has been submitted to FEMA.

Fiscal Year	Budget
FY 2016	$3,000
FY 2017	$0
FY 2018	$0
FY 2019	$0
FY 2020	$0
5-Year Program	$3,000



Tres Rios Levees

Floodway

Floodplain

Aerial Photography - Fall 2013

0 1,500 3,000 Feet

N

White Tanks FRS No.4 Outlet

PCN: 201.01.31

Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

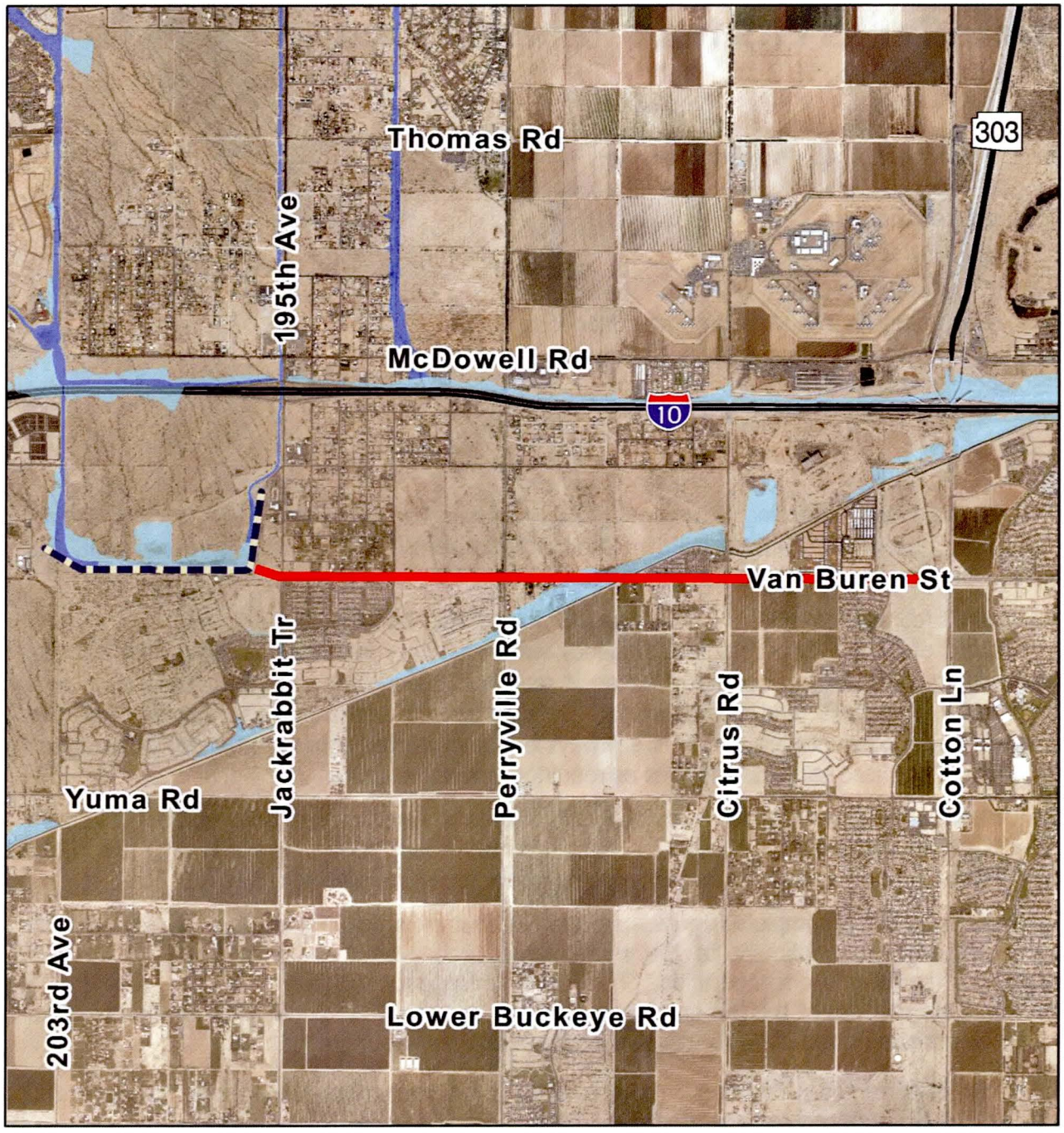
District: 4
Jurisdiction: Buckeye, Unincorporated Maricopa County
Origin: FY 2007 Prioritization Procedure
Resolution: FCD 2010R003
Agreement: None

The District's Buckeye Area Drainage Master Plan (ADMP) examined alternatives to convey flows from White Tanks FRS No.4's impoundment area to the Gila River. The ADMP recommended a channel designed to intercept and convey the 100-year flood flow along its length, while simultaneously serving as an outlet to the dam.

Due to a lack of project partner funding for this concept, the District initiated a study to explore lower-cost alternatives focused on satisfying the District's dam safety requirements. The selected outcome involved an outlet pipe from the dam to the Loop 303 Outfall Channel that ultimately discharges to the Gila River.

Design of the outlet drain is complete. Construction is scheduled to begin during FY 2019.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$5,000
FY 2019	$4,670,000
FY 2020	$7,200,000
5-Year Program	$11,879,000



White Tanks FRS No. 4 Outlet

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

0 2,000 4,000 Feet

N

White Tanks FRS No.4 Rehabilitation

PCN: 201.02.31

Dave Degerness, P.E., Project Manager
602-506-4730
djd@mail.maricopa.gov

District: 4
Jurisdictions: Buckeye & Unincorporated Maricopa County
Origin: FY 2006 Prioritization Procedure
Resolution: FCD 2008R0005
Agreements: FCD 2010A005, 2010A005A

White Tanks Flood Retarding Structure (FRS) No.4 was constructed in 1954 by the Natural Resources Conservation Service (NRCS) (then Soil Conservation Service). By agreement, the District operates and maintains the structure.

The District completed Phase I Assessments for White Tanks FRS No.4, and the Arizona Department of Water Resources (state agency with regulatory authority) classified the dam as having safety deficiencies; corrective action is required to bring the dam into compliance with dam safety standards and requirements. Deficiencies include transverse cracking of the embankment, inadequate left and right spillways and unprotected corrugated metal pipe outlets. NRCS identified these same deficiencies as requiring corrective action.

The District submitted an application to NRCS for federal funding assistance under Public Law 106-472 (Small Watershed Rehabilitation Amendments) in May 2004, and the District and NRCS have entered into an intergovernmental agreement for project implementation.

Construction is being completed in two phases, the first of which is complete. Phase two will extend the dam embankment to the north across Roosevelt Avenue to close off the left emergency spillway from operation. The right emergency spillway will be widened to accommodate the loss of the left emergency spillway and the flood pool will be graded to fill in the ADOT borrow pit and allow for positive drainage of the impoundment area.

Phase two is currently in final design and is utilizing a Construction Manager at Risk contract. Construction is scheduled to begin during FY 2016.

Fiscal Year	Budget
FY 2016	$9,875,000
FY 2017	$12,935,000
FY 2018	$0
FY 2019	$0
FY 2020	$0
5-Year Program	$22,810,000

White Tanks FRS No. 4 Rehabilitation

Floodway

Floodplain

Aerial Photography - Fall 2013

0 750 1,500 Feet

N

McMicken Dam Rehabilitation Project

PCN: 202.02.31

Patrick Schafer, P.E., Project Manager
602-506-2206
patrickschafer@mail.maricopa.gov

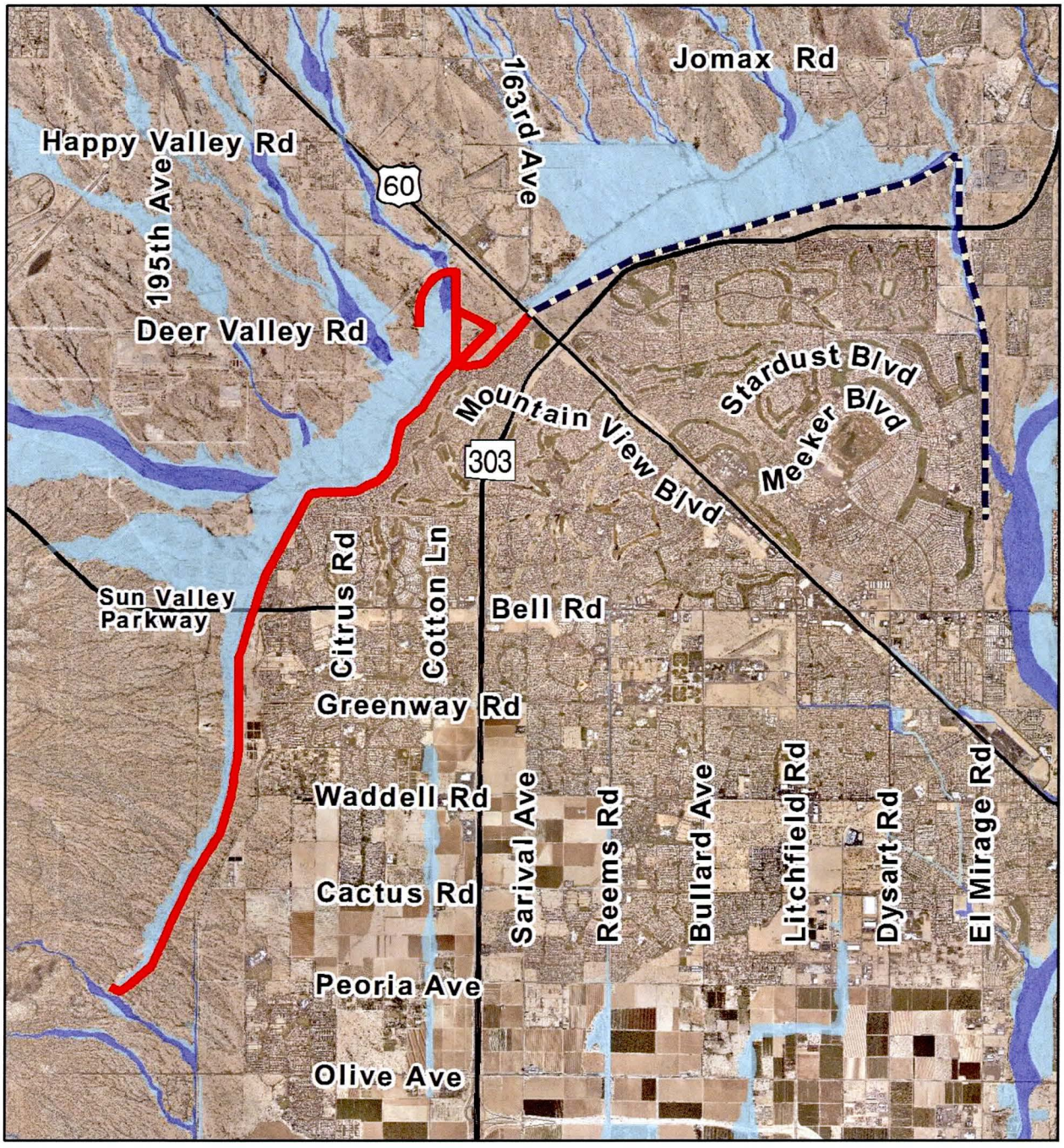
District: 4
Jurisdictions: Surprise & Unincorporated Maricopa County
Origin: FY 2012 Prioritization Procedure
Resolution: 2010R009
Agreement: Pending

The McMicken Dam Project was constructed by the U.S Army Corps of Engineers in 1954 and 1955 to protect Luke Air Force Base, the Litchfield Park Naval Air Facility and agricultural activities in the area from flooding; it also provides flood protection for critical public facilities and infrastructure including hospitals, schools, police and fire stations, freeways and other public roadways, railroads and the Beardsley Canal. The McMicken Dam Project includes McMicken Dam itself (approximately nine miles in length), the McMicken Dam Outlet Channel (approximately six miles in length) and the McMicken Dam Outlet Wash (approximately four miles in length) that discharges to the Agua Fria River.

The ability of the McMicken Dam Project to maintain the current level of flood protection for the benefit of the public in an increasingly urbanized environment is in question due to its age, land subsidence, earth fissuring, urbanization encroachment and current dam safety standards. These safety issues have led the District to determine that an overall rehabilitation or replacement of the dam is required. Alternatives may include a modified dam, floodways or basins which will provide a minimum of 100-year flood protection. The District has pursued, and continues to pursue, federal funding assistance for this project; however, a lack of federal funding availability may require unilateral implementation.

Final design is in progress, and construction will be accomplished in multiple phases. Construction will include relocating the emergency spillway, improving the outlet channel and rehab of the dam embankment. Ongoing efforts are taking place to include the coordination of stakeholders for the incorporation of a recreational component to the rehabilitation project.

Fiscal Year	Budget
FY 2016	$1,285,000
FY 2017	$1,208,000
FY 2018	$8,920,000
FY 2019	$7,750,000
FY 2020	$8,575,000
5-Year Program	$27,738,000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Happy Valley Rd
195th Ave
60
163rd Ave
Deer Valley Rd
Stardust Blvd
Meeker Blvd
Mountain View Blvd
303
Sun Valley Parkway
Citrus Rd
Cotton Ln
Bell Rd
Greenway Rd
Waddell Rd
Cactus Rd
Peoria Ave
Olive Ave
Sarival Ave
Reems Rd
Bullard Ave
Litchfield Rd
Dysart Rd
El Mirage Rd
McMicken Dam Rehabilitation
Existing Infrastructure
Floodway
Floodplain
Aerial Photography - Fall 2013
0
5,000
10,000 Feet
N

McMicken Dam Outfall Channel

PCN: 204.01.30

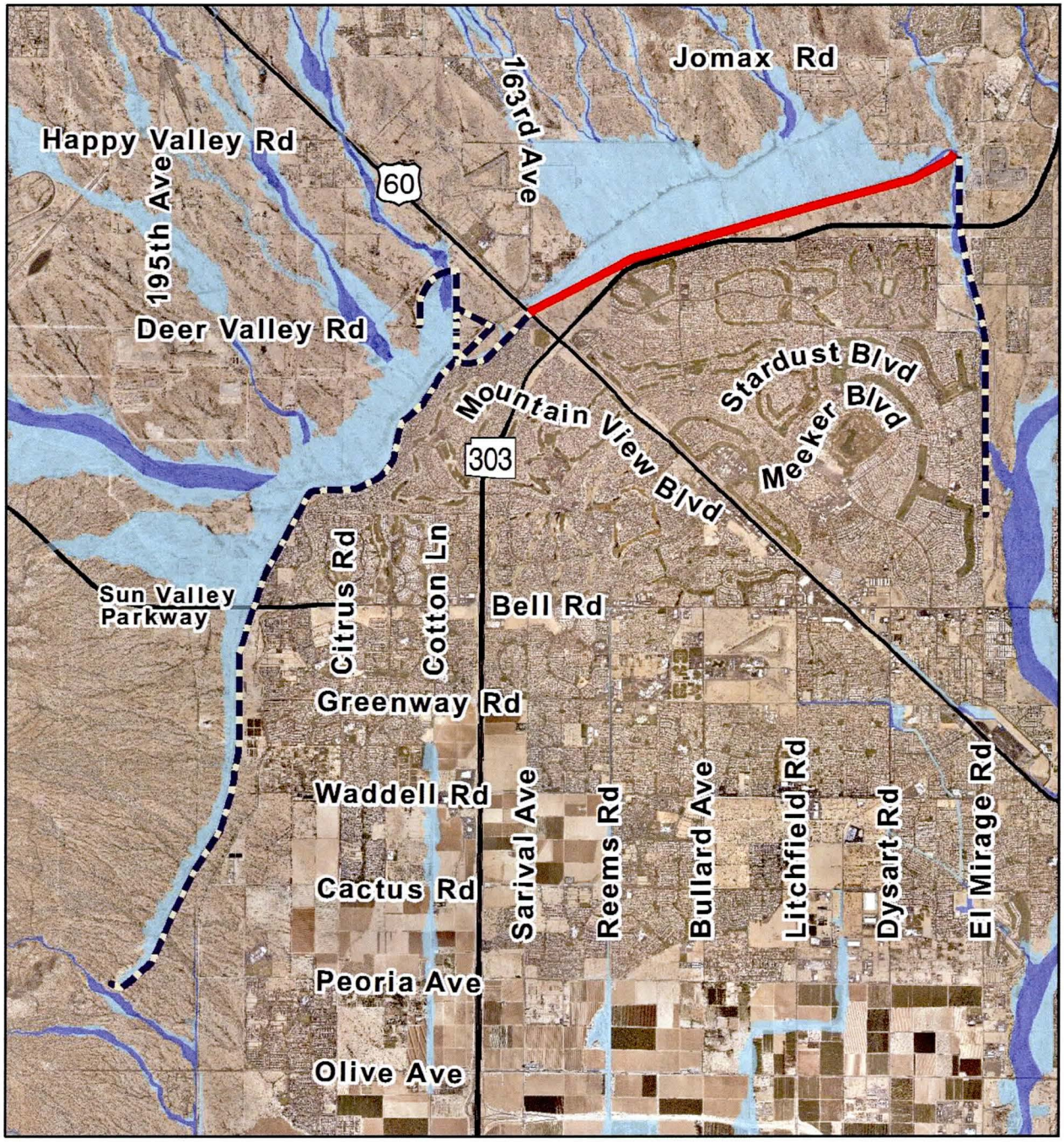
Bobbie Ohler, P.E., Project Manager
602-506-2943
bao@mail.maricopa.gov

District: 4
Jurisdictions: Surprise & Unincorporated Maricopa County
Origin: FY 2012 Prioritization Procedure
Resolution: 2010R009
Agreement: Pending

The McMicken Dam Project was constructed by the U.S Army Corps of Engineers in 1954 and 1955 to protect Luke Air Force Base, the Litchfield Park Naval Air Facility and agricultural activities in the area from flooding; it also provides flood protection for critical public facilities and infrastructure including hospitals, schools, police and fire stations, freeways and other public roadways, railroads and the Beardsley Canal. The McMicken Dam Project includes McMicken Dam itself (approximately nine miles in length), the McMicken Dam Outlet Channel (approximately six miles in length) and the McMicken Dam Outlet Wash (approximately four miles in length) that discharges to the Agua Fria River.

Alternatives were evaluated for rehabilitation of the outlet channel and the recommended alternative is an incised channel. 30% design is in progress. District is also pursuing auctioning/selling excess dirt for ADOT roads, MCDOT fill, development, etc. Currently, there is interest from the construction and development community to utilize this excess material for nearby projects. Minor improvements to the McMicken Dam Wash (El Mirage Drain) will also be made.

Fiscal Year	Budget
FY 2016	$760,000
FY 2017	$422,000
FY 2018	$5,000
FY 2019	$5,000
FY 2020	$5,000
5-Year Program	$1,197,000


Jomax Rd
Happy Valley Rd
163rd Ave
195th Ave
60
Deer Valley Rd
Stardust Blvd
Meeker Blvd
Mountain View Blvd
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Sun Valley Parkway
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Cotton Ln
Bell Rd
Greenway Rd
Waddell Rd
Cactus Rd
Peoria Ave
Olive Ave
Sarival Ave
Reems Rd
Bullard Ave
Litchfield Rd
Dysart Rd
El Mirage Rd
McMicken Dam Outlet Channel Improvements
Existing Infrastructure
Floodway
Floodplain
Aerial Photography - Fall 2013
N
0
5,000
10,000 Feet

Guadalupe FRS Rehabilitation

PCN: 205.01.30

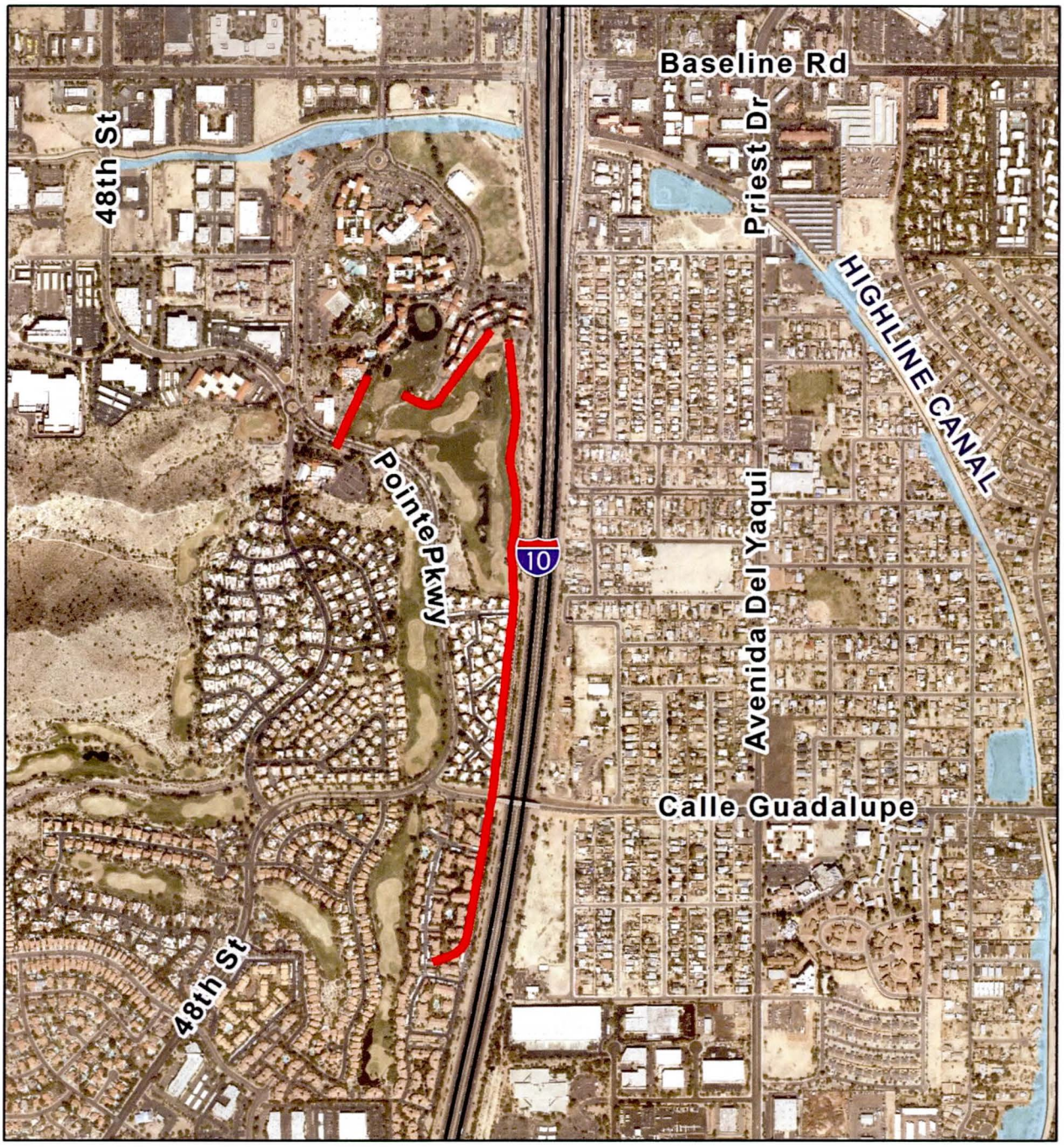
Dave Degerness, P.E., Project Manager
602-506-4730
djd@mail.maricopa.gov

District: 1 & 5
Jurisdictions: Phoenix, Tempe
Origin: FY 2016 Prioritization Procedure
Resolution: 2014R001
Agreement: Pending

Guadalupe Flood Retarding Structure (FRS) is an earthen structure consisting of three dams, North Dam No. 1, North Dam No. 2 and East Dam. The FRS detains floodwater at the mouth of Pima Wash and releases it to the Western Canal via an underground pipe. The reservoir pool is grass-lined and used for part of the golf course for the Arizona Grand Resort. The structure is 2,910 feet in length and has a height of 35 feet, with a storage capacity of 252 acre-feet. The U.S. Soil Conservation Service, now the Natural Resources Conservation Service (NRCS), was the federal sponsor. The District and the U.S. Soil Conservation Service were cost share partners on this project. The Arizona Grand Resort is responsible for the maintenance of the emergency spillway, erosion control on the embankments and landscaping. The District is responsible for the structural and functional integrity of the structure.

The District has identified deficiencies with Guadalupe FRS that require corrective action. Rehabilitation work will include replacing the intake structure with an updated design standard intake structure, installing a filter diaphragm around the principal spillway and slip lining the existing principal spill way both through and downstream of the dam. Design is scheduled to start during FY 2020.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$820,000
5-Year Program	$829,000



Guadalupe FRS Rehabilitation

Floodplain

Aerial Photography - Fall 2013

0 600 1,200 Feet

N

Buckeye FRS No.1 Rehabilitation

PCN: 207.01.31

Greg Jones, P.E., Project Manager
602-506-5537
glj@mail.maricopa.gov

District: 4
Jurisdictions: Buckeye & Unincorporated Maricopa County
Origin: FY 2006 Prioritization Procedure
Resolution: FCD 2009R007
Agreement: Pending

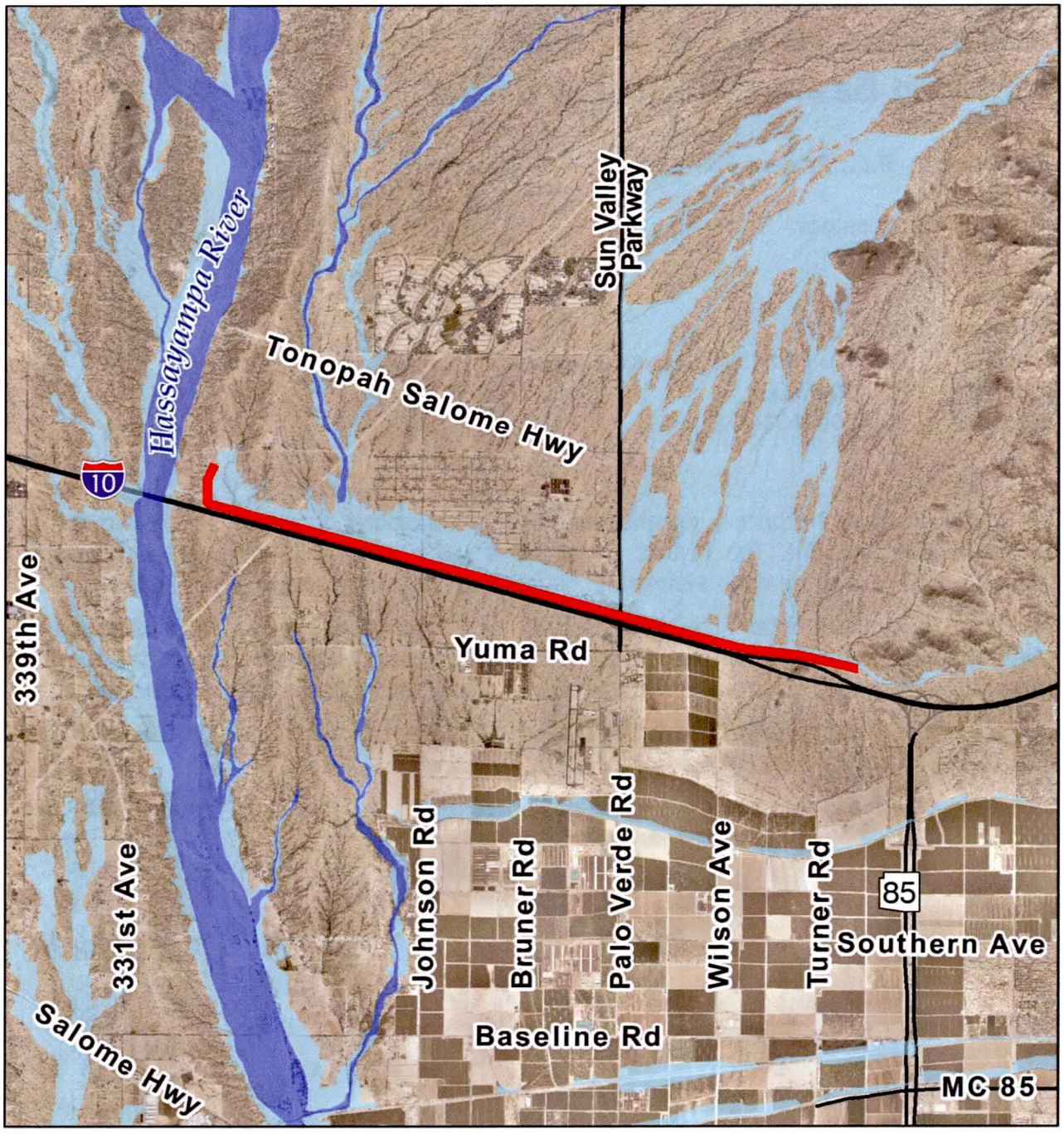
Buckeye FRS No.1 is the westernmost of a series of three flood control dams designed and built by the Soil Conservation Service (now the Natural Resources Conservation Service, or NRCS). The dam, built in 1974, is located along the southern slopes of the White Tank Mountains and parallels the north side of Interstate 10 for 7.1 miles between SR-85 and the Hassayampa River. The dam is operated and maintained by the District and is regulated by the Arizona Department of Water Resources (ADWR).

Since its construction, the dam has experienced considerable embankment cracking. ADWR has identified the embankment cracking in Buckeye FRS No.1 as a dam safety deficiency requiring corrective action. The District has requested NRCS federal cost share assistance under Public Law 106-472 for a rehabilitation project to address dam safety concerns and to maintain flood control benefits to downstream properties for the next 100 years. NRCS funding has been authorized; however, allocation of funding is awaiting budget availability.

The District completed a planning-level assessment of potential alternatives, including a modified dam, a channel/levee system and combinations of both providing a minimum of 100-year flood protection. The selected alternative consists of dam rehabilitation.

Final design is complete, and construction is being accomplished in multiple phases. Phase one, which is complete, utilized a Construction Manager at Risk contracting method rehabilitated the dam west of Johnson Road by constructing a new central filter within the embankment. Phase two, which is scheduled to start in FY16, will construct a new central filter east of Johnson Road along with improving the principal spillway and emergency spillway.

Fiscal Year	Budget
FY 2016	$24,715,000
FY 2017	$10,305,000
FY 2018	$0
FY 2019	$0
FY 2020	$0
5-Year Program	$35,020,000



Buckeye FRS No. 1 Rehabilitation Project

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 4,500 9,000 Feet

Downtown Buckeye Regional Basin and Storm Drain

PCN: 211.03.31

Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

District: 4
Jurisdiction: Buckeye
Origin: FY 2006 Prioritization Procedure
Resolution: FCD 2006R007
Agreement: FCD 2006A014

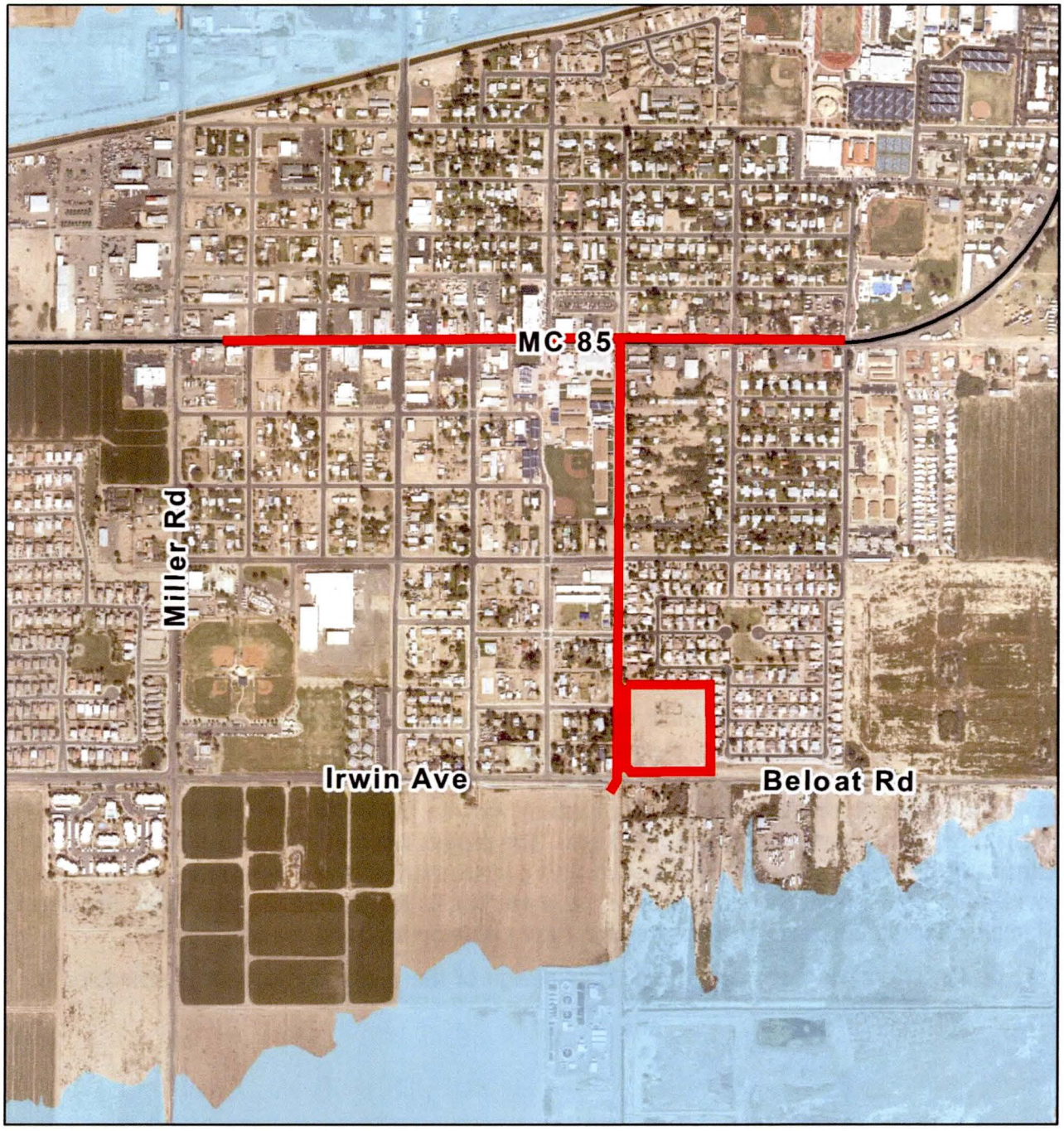
The City of Buckeye historically experienced flooding conditions downtown in the vicinity of Monroe Avenue (MC 85). The District completed a study that identified potential structural solutions: a 10-year storm drain system and outfall and 100-year retention basins.

This project will relieve historic downtown Buckeye of frequent flooding by implementing storm drains, channels, a retention basin, and an outlet. The project will mitigate flood damages to residential, commercial, governmental and industrial properties, while increasing traffic safety.

The project's IGA commits the District to provide 50 percent reimbursement to the city (the project's lead agency).

Final design by the city is complete. Construction schedule is primarily dependent upon the availability of funding of both the city and District.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$28,000
5-Year Program	$37,000



Downtown Buckeye Regional Basin and Storm Drain

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 500 1,000 Feet

Watson Drainage System

PCN: 211.05.30

Gary Wesch, P.E., Project Manager
602-506-4592
garywesch@mail.maricopa.gov

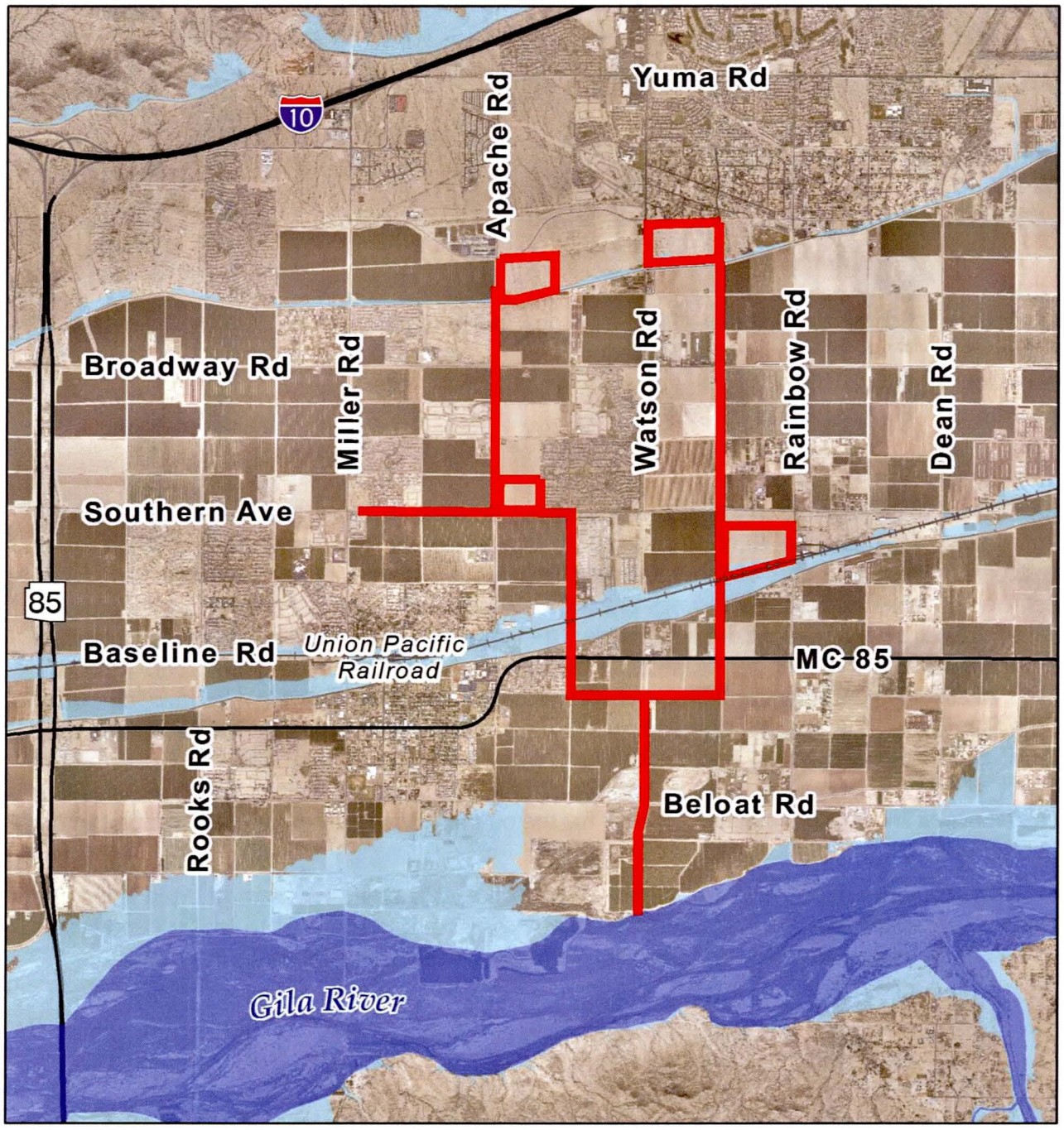
District: 4
Jurisdiction: Buckeye
Origin: FY 2012 Prioritization Procedure
Resolution: FCD 2011R006
Agreement: FCD 2011A011

The District completed the Buckeye Area Drainage Master Plan (ADMP) in June 2009. The City of Buckeye submitted the full ADMP-recommended plan to the District's Fiscal Year 2012 prioritization procedure, and the plan was recommended. The ADMP recommended construction of five north-south regional drainage channels and basins to capture regional storm water flow and convey it to the Gila River: the White Tanks System, the Watson System, the Rooks System, the Oglesby System, and the Palo Verde System.

The Watson System will be the first to be implemented. It includes several branches of channels, culverts and detention basins spanning more than 10 miles, draining from the Roosevelt Irrigation District canal on the north to the Gila River on the south. The project will provide a backbone drainage conveyance system with an outfall to the Gila River for future development in the eastern portion of Buckeye. The project will be implemented in phases. The District will be responsible for final design and construction of the downstream portion that provides the outfall from the north side of the Union Pacific Railroad to the Gila River. Buckeye will implement the upstream portions through future development and capital projects.

A pre-design effort has been completed. Final design of the outfall component is scheduled to begin during FY 2016.

Fiscal Year	Budget
FY 2016	$770,000
FY 2017	$790,000
FY 2018	$1,075,000
FY 2019	$1,575,000
FY 2020	$1,740,000
5-Year Program	$5,950,000



Watson Drainage System

Floodway

Floodplain

Aerial Photography - Fall 2013

0 3,000 6,000 Feet

N

Granite Reef Wash Drainage Improvements

PCN: 265.01.30

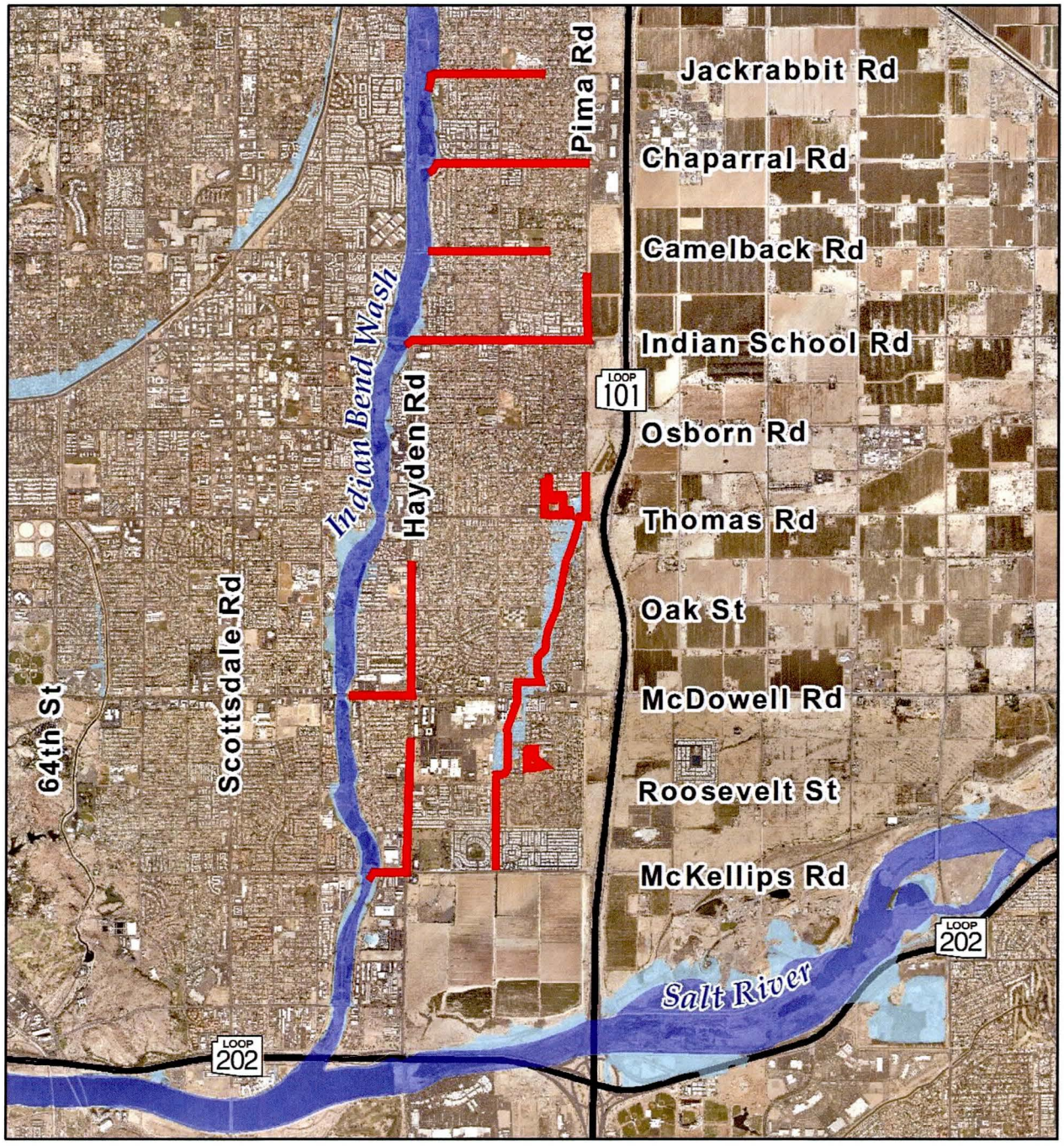
Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

District: 2
Jurisdictions: Scottsdale, Salt River Pima-Maricopa Indian Community
Origin: FY 2009 Prioritization Procedure
Resolution: FCD 2010R002
Agreement: FCD 2014A015

The City of Scottsdale has historically experienced flooding in developed areas along Granite Reef Wash. The Granite Reef Watershed is located in the southeast part of the City of Scottsdale. The south part of the watershed includes a 100-year FEMA floodplain for Granite Reef Wash. Approximately 700 homes are within this floodplain. The current concepts for the related drainage improvement project include: the addition of inlets and lateral pipes to existing storm drain pipes that convey stormwater westward into Indian Bend Wash, two detention basins to attenuate stormwater flows, and various improvements to provide a stormwater outfall to the Salt River. The project improvements are expected to greatly reduce the floodplain. The City of Scottsdale is the lead agency for the project and is partnering with the Flood Control District of Maricopa County. The City is also coordinating and partnering with the Salt River Pima Maricopa Indian Community (SRPMIC) for the outfall segment of the project that lies within the SRPMIC.

The 2014 study developed drainage improvement concepts that include: storm drain inlets and laterals to be added to existing storm drains that convey flows to the west to Indian Bend Wash, two detention basins, new storm drains, and channels. Phase 1 final design is in-progress.

Fiscal Year	Budget
FY 2016	$10,000
FY 2017	$15,000
FY 2018	$35,000
FY 2019	$35,000
FY 2020	$2,965,000
5-Year Program	$3,060,000


Jackrabbit Rd
Chaparral Rd
Camelback Rd
Indian School Rd
Osborn Rd
Thomas Rd
Oak St
McDowell Rd
Roosevelt St
McKellips Rd
Pima Rd
Hayden Rd
Indian Bend Wash
Scottsdale Rd
64th St
LOOP 101
LOOP 202
LOOP 202
Salt River
Granite Reef Wash Drainage Improvements
Floodway
Floodplain
Aerial Photography - Fall 2013
0 2,500 5,000 Feet
N

Powerline / Vineyard / Rittenhouse FRS Rehabilitation and Replacement

PCN: 310.01.30

Felicia Terry, P.E., Project Manager
602-506-8111
fet@mail.maricopa.gov

District: 1
Jurisdictions: Mesa, Gilbert, Queen Creek
Origin: FY 2011 Prioritization Procedure
Resolution: FCD 2008R019
Agreements: FCD 2013A005, FCD 2013A006, FCD 2014A008, FCD 2014A009 and FCD 2014A011

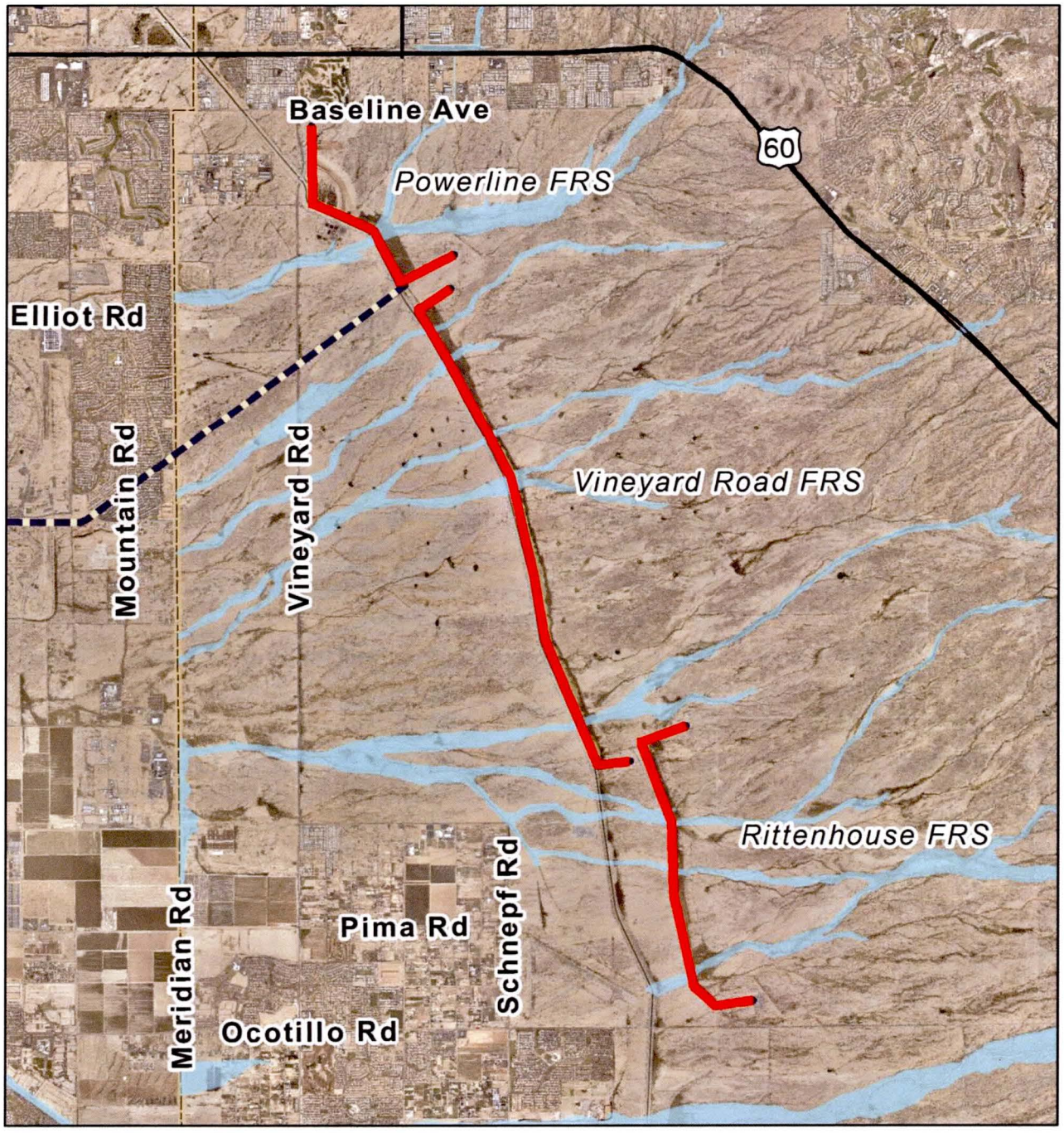
The Powerline, Vineyard Road and Rittenhouse (PVR) Flood Retarding Structures (FRSs) are located in northwest Pinal County, south of Apache Junction and parallel to the Central Arizona Project (CAP) canal between Baseline Road and Ocotillo Road. Per agreements with the Soil Conservation Service (now Natural Resources Conservation Service, or NRCS), the District operates and maintains the structures. The three FRSs mitigate flooding hazards impacting approximately 169 square miles of residential, commercial and agricultural land in Maricopa and Pinal counties, and protect structures such as the CAP canal, Phoenix-Mesa Gateway Airport and the Loop 202 San Tan Freeway.

The Arizona Department of Water Resources recently reclassified the PVR FRSs as high hazard potential, medium size structures. The District prepared a Final Failure Mode Analysis Report, Structures Assessment Program Phase I (FFMA), in July 2002, that identified defects in the structures due to the age of the structures, proximity to fissures, subsidence of the area and cracking caused by drying shrinkage.

The Supplemental Watershed Plan and Environmental Assessment for all three structures is complete. The selected alternative involves rehabilitating Vineyard Road FRS, converting Rittenhouse FRS to a levee and replacing the Powerline FRS with a system of channels.

Final design is in progress. The District has secured funding assistance from the NRCS in which the agency will cost share in 65% of the eligible construction costs. The first construction phase is scheduled to begin during the fall of 2015.

Fiscal Year	Budget
FY 2016	$17,875,000
FY 2017	$30,220,000
FY 2018	$34,825,000
FY 2019	$7,168,000
FY 2020	$0
5-Year Program	$90,088,000



Powerline/Vineyard/Rittenhouse FRS Rehabilitation or Replacement

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 4,250 8,500 Feet

Harquahala FRS Erosion Mitigation

PCN: 330.01.30

Stephen Brown, P.E., Project Manager
602-506-5426
StephenBrown@mail.maricopa.gov

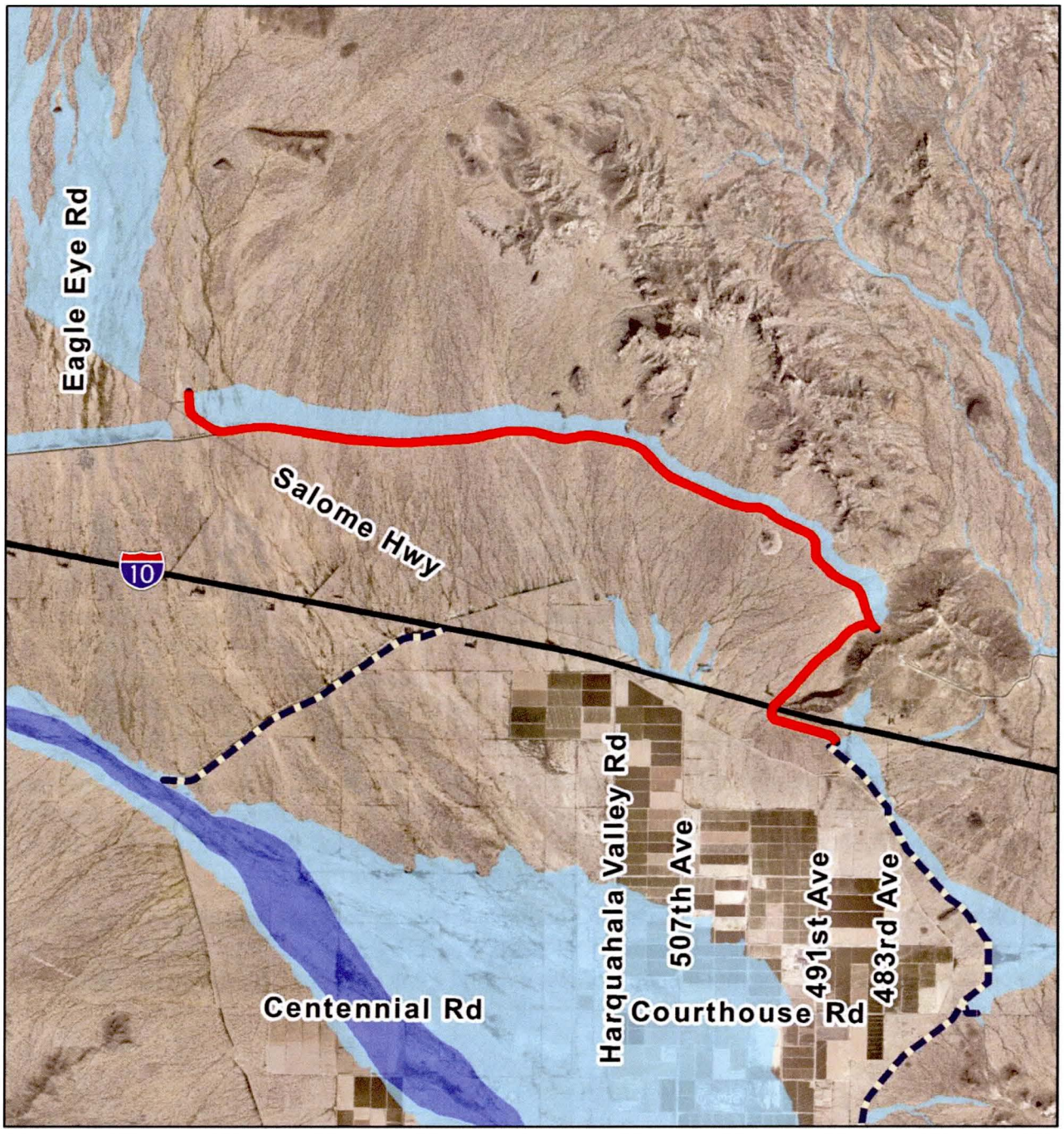
District: 5
Jurisdiction: Unincorporated Maricopa County
Origin: FY 2012 Prioritization Procedure
Resolution: FCD 2010R006
Agreement: None

Harquahala FRS is a compacted earth-fill dam which detains floodwater from the southwest side of the Big Horn Mountains, the Harquahala Plain and Saddle Mountain. The water is conveyed to the Harquahala Floodway and the Saddleback FRS and Diversion Channel and outfalls south to a tributary of Centennial Wash. The structure is 11.5 miles in length.

Harquahala FRS has exposed earthen slopes that will be subject to long-term erosion. This project provides comprehensive rock mulch and hydroseed treatment for the slopes that will reduce this hazard and increase the operational life of the dam.

Project schedule is dependent on District funding availability, with construction funding projected outside the five-year Capital Improvement Program. Design will be completed internally by District staff.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$12,000



Harquahala FRS Erosion Hazard Reduction

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

0 6,500 13,000 Feet

N

Saddleback FRS Modifications

PCN: 331.01.30

Stephen Brown, P.E., Project Manager
602-506-5426
StephenBrown@mail.maricopa.gov

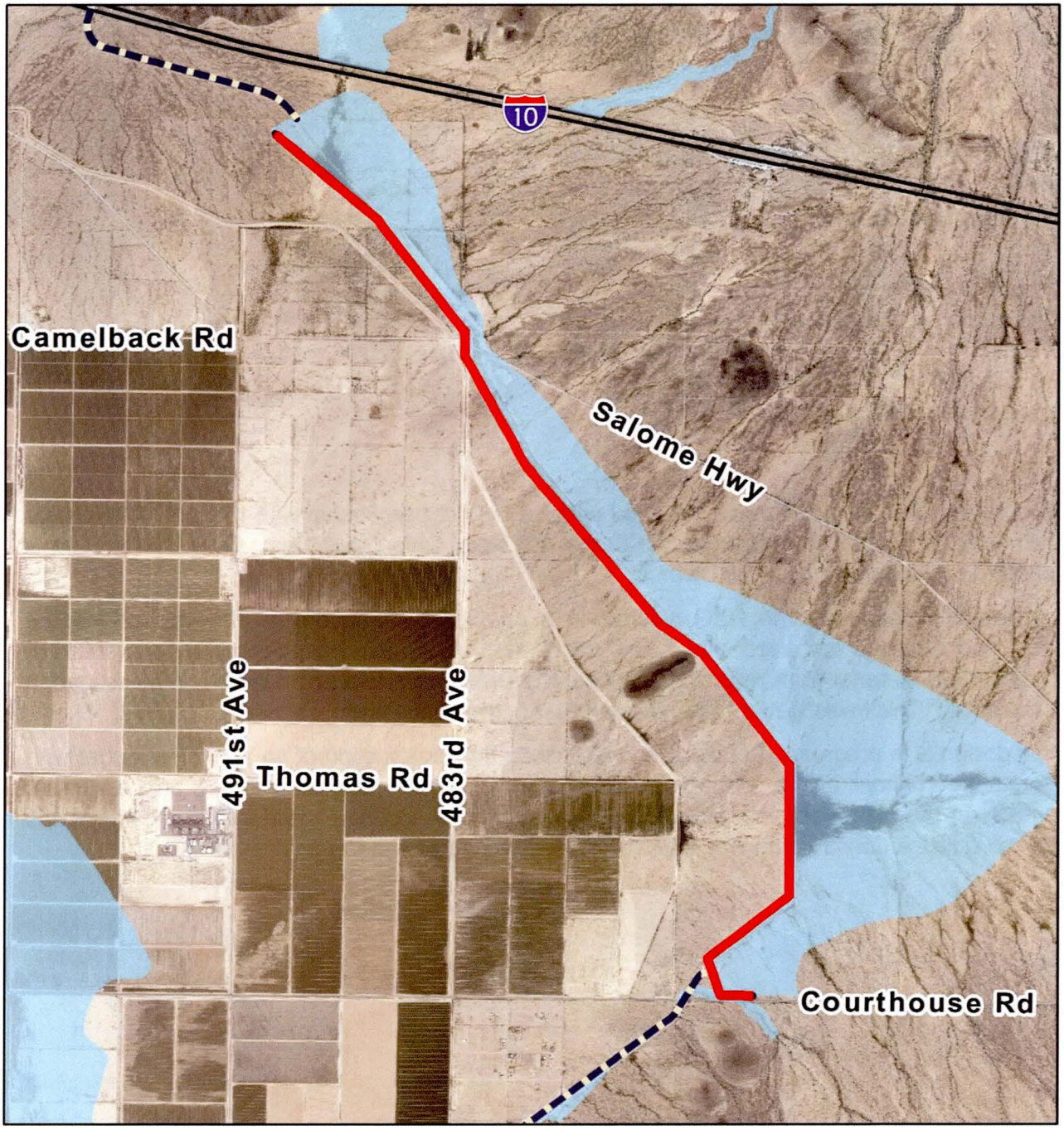
Districts: 4 & 5
Jurisdiction: Unincorporated Maricopa County
Origin: FY 2011 Prioritization Procedure
Resolution: FCD 2009R008
Agreement: Pending

The Saddleback Flood Retarding Structure (FRS), located just south of Interstate 10, is a compact earth-fill dam which receives floodwaters discharged from the Harquahala FRS and runoff water from a more than 22-square mile drainage area. The floodwater is conveyed to the Saddleback Diversion Channel via the principal spillway and outfalls south at the tributary of Centennial Wash. The structure is 5.1 miles in length and has a height of 21 feet, with a storage capacity of 3,620-acre feet. The U.S. Soil Conservation Service, now the Natural Resources Conservation Service (NRCS), was the federal sponsor for construction. The District and the U.S. Soil Conservation Service were cost share partners on the initial construction of this structure.

Saddleback FRS has experienced the formation of numerous erosion holes and longitudinal cracking along the dam crest beginning approximately 2 years after construction was completed in 1982. Investigations, repairs and inspection and monitoring of the structure have been ongoing, however the cause(s) of the cracking have not been determined.

The District has identified a need to repair Saddleback FRS to mitigate cracking in the upper portion of the embankment above the central filter. The project is currently in pre-design to develop conceptual plans for modification of the existing central filter. The District is pursuing NRCS funding assistance.

Fiscal Year	Budget
FY 2016	$5,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$15,000



Saddleback FRS Modifications

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 2,000 4,000 Feet

Cave Buttes Dam Modifications

PCN: 350.01.30

Greg Jones, P.E., Project Manager
602-506-5537
glj@mail.maricopa.gov

District: 3
Jurisdiction: Phoenix
Origin: FY 2011 Prioritization Procedure
Resolution: FCD 2009R009
Agreement: FCD 2012A018

Cave Buttes Dam was constructed in 1980 under a District partnership with the U.S. Army Corps of Engineers, functionally replacing the Corps' 1923-era Cave Creek Dam. Cave Buttes Dam is operated and maintained by the District.

A substantial flood event in 1993 resulted in a significant impoundment of water behind the dam, and seepage occurred along the dam's left abutment. To prevent deterioration of embankment material from recurring seepage, the District pursued an analysis and investigation of the issue. This investigation has indicated that permanent remedial action is required.

Final design is in progress. Remediation will include the construction of an additional outlet with a drainage channel and a seepage collection system at the downstream toe and abutment contacts of the main dam and dikes 1 and 2. Construction will be phased into two components and will utilize a Construction Manager at Risk contracting method.

Fiscal Year	Budget
FY 2016	$765,000
FY 2017	$390,000
FY 2018	$2,000
FY 2019	$5,215,000
FY 2020	$10,000
5-Year Program	$6,382,000

Cave Buttes Dam Modifications

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 1,500 3,000 Feet

I-17/Skunk Creek Land Rights Acquisition and Access Improvements

PCN: 361.01.30

Patrick Schafer, P.E., Project Manager
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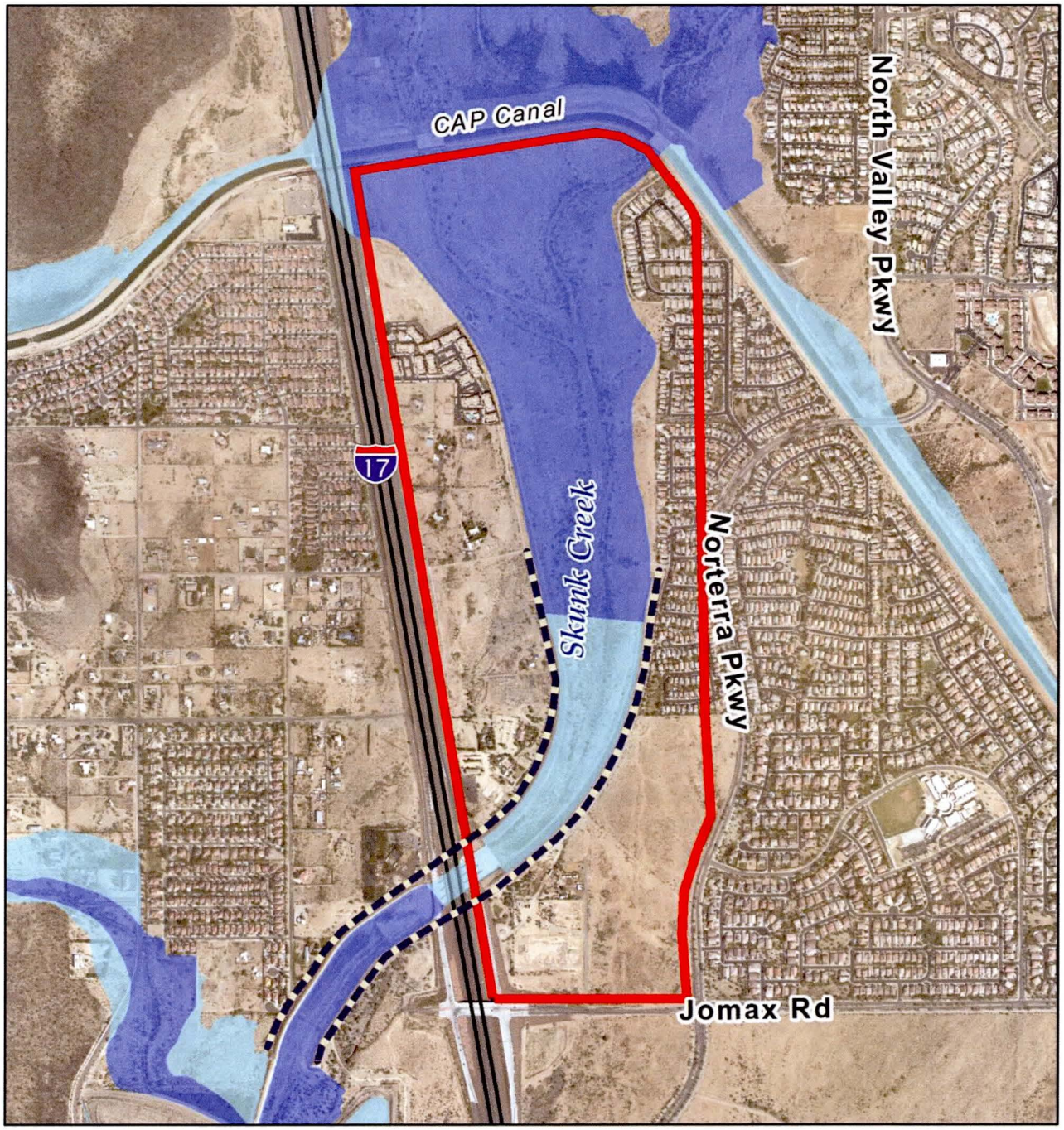
patrickschafer@mail.maricopa.gov

District: 3
Jurisdiction: Phoenix
Origin: FY 2011 Prioritization Procedure
Resolution: FCD 2013R002
Agreement: N/A

District's Operations and Maintenance (O&M) Division performs routine inspection, maintenance and repairs activities for flood control structures throughout the County yearly or as storm events require.

District staff has identified the need to improve access for routine inspections, repairs & maintenance activities of Skunk Creek in the vicinity of Interstate 17.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$210,000
FY 2020	$0
5-Year Program	$216,000



I-17/Skunk Creek Land Rights Acquisition and Access Improvements

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 750 1,500 Feet

New River Dam Outlet Improvements

PCN: 370.01.30

Patrick Schafer, P.E., Project Manager
602-506-2206
patrickschafer@mail.maricopa.gov

District: 4
Jurisdiction: Peoria
Origin: FY 2012 Prioritization Procedure
Resolution: FCD 2011R004
Agreement: None

The District and the U.S. Army Corps of Engineers constructed the New River Dam and associated works in 1985 as part of the New River and Phoenix City Streams Flood Control Project, providing enhanced flood protection for downstream Maricopa County residents, and the District operates and maintains the dam. Erosion related to the dam's outlet channel will potentially impact District maintenance access, and has caused outlet flow restrictions and resultant stagnant impoundments contrary to design specifications.

District engineering efforts have identified that these conditions require corrective action, including improvements to the dam's outlet channel.

Design is complete. Construction is scheduled to begin late in the 5-year program. Until then, the District will continue regular monitoring of the current condition.

Fiscal Year	Budget
FY 2016	$5,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$15,000

New River Dam Outlet Improvements

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 1,000 2,000 Feet

Oak Street Detention Basin and Storm Drain

PCN: 420.04.31

Afshin Ahouraiyan, P.E., Project Manager
602-506-4519
afa@mail.maricopa.gov

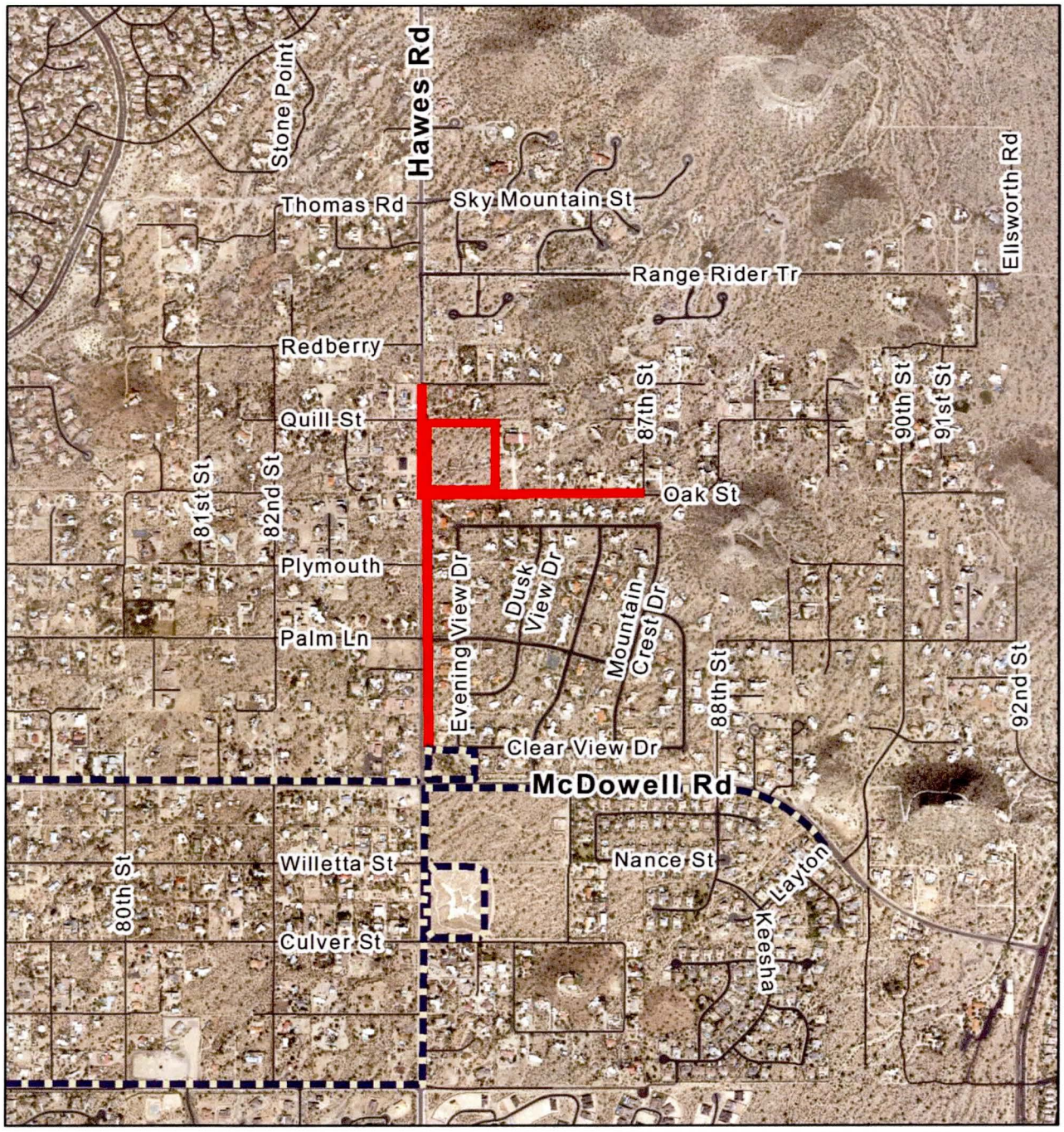
District: 2
Jurisdictions: Mesa, Unincorporated Maricopa County
Origin: FY 2008 Prioritization Procedure
Resolution: FCD 2002R008
Agreement: FCD 2009A008

The Spook Hill Area Drainage Master Plan (ADMP), completed in 2002, identified regional flood control infrastructure necessary for a 35-square-mile area located in northeast Mesa. The ADMP watershed extends from the Usery Mountains on the north and the Apache Trail on the east, to the Buckhorn-Mesa structures on the west and south.

The Oak Street Detention Basin and Storm Drain project is the third scheduled project in support of this ADMP and involves construction of a basin at Oak Street and Hawes Road, and storm drains east along Oak Street and north along Hawes Road. The project will provide protection in conjunction with drainage infrastructure constructed by the Hermosa Vista/Hawes Road and McDowell Road projects.

Final design is complete. Construction schedule is dependent upon funding availability.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$12,000


Stone Point
Hawes Rd
Thomas Rd
Sky Mountain St
Ellsworth Rd
Range Rider Tr
Redberry
Quill St
87th St
90th St
91st St
Oak St
81st St
82nd St
Plymouth
Palm Ln
Evening View Dr
Dusk View Dr
Mountain Crest Dr
88th St
92nd St
Clear View Dr
McDowell Rd
Willetta St
Nance St
Layton
Keesha
80th St
Culver St
Oak Street Detention Basin and Storm Drain
Existing Infrastructure
Floodway
Floodplain
Aerial Photography - Fall 2013
N
0
750
1,500 Feet

Ellsworth Road and McKellips Road Drainage System

PCN: 420.05.31

Afshin Ahouraiyan, P.E., Project Manager
602-506-4519
afa@mail.maricopa.gov

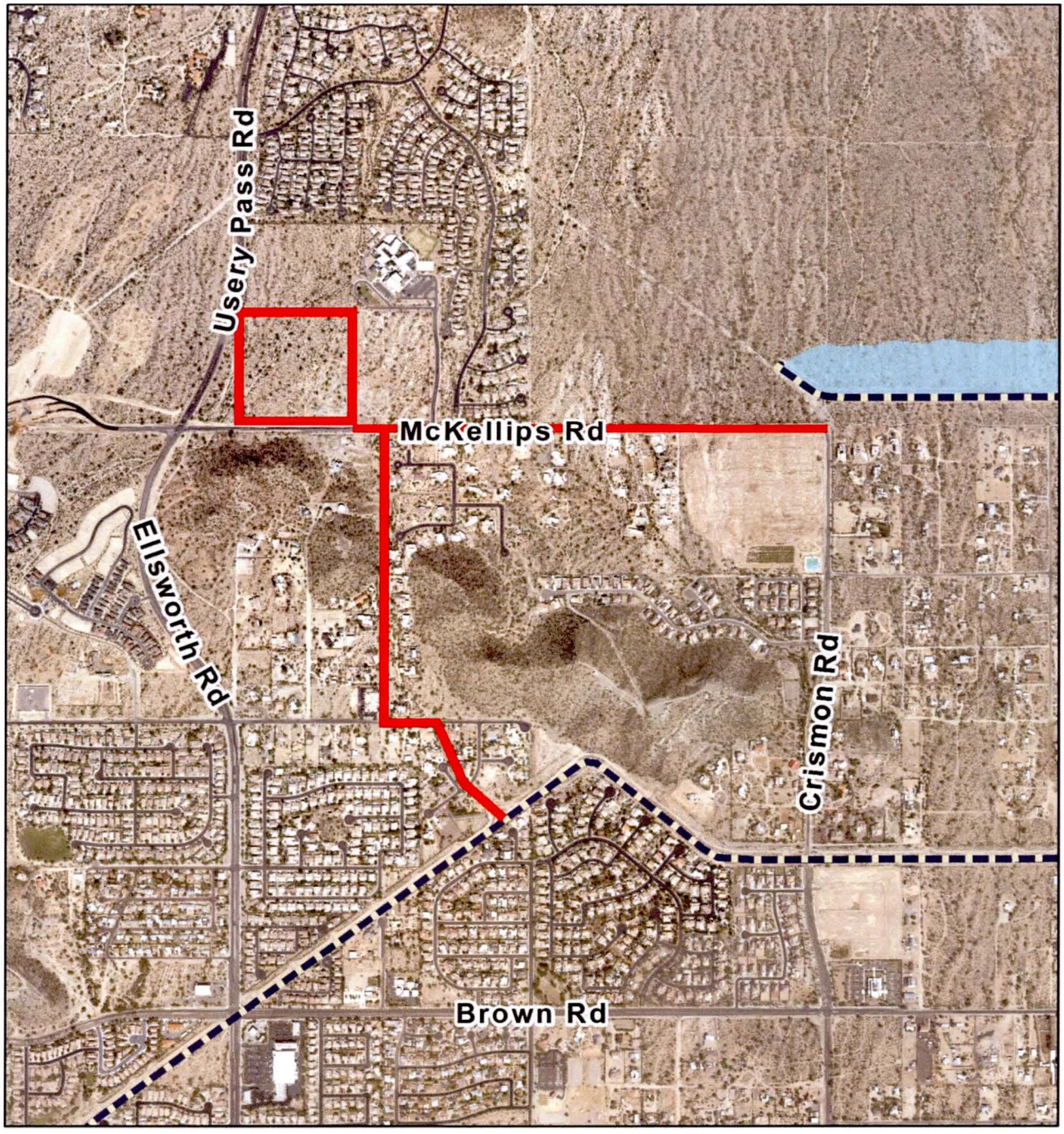
District: 2
Jurisdiction: Mesa
Origin: FY 2008 Prioritization Procedure
Resolution: FCD 2002R008
Agreement: Pending

The Spook Hill Area Drainage Master Plan (ADMP), completed in 2002, identified regional flood control infrastructure necessary for a 35-square-mile area located in northeast Mesa. The ADMP watershed extends from the Usery Mountains on the north and the Apache Trail on the east, to the Buckhorn-Mesa structures on the west and south.

The Ellsworth Road and McKellips Road project is the fourth scheduled project in support of this ADMP and likely will involve construction of a basin at Ellsworth Road and McKellips Road, and a combination of open channel and storm drain east along McKellips Road and south along 94th Street. The basin rights-of-way are in place, owned by the city of Mesa. The project will provide protection to local, previously developed subdivisions, where historic flooding has been noted.

A design concept study is complete. The project's advancement into final design is dependent upon the availability of funds and the successful negotiation of an Intergovernmental Agreement between District and the City of Mesa.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$12,000



Ellsworth Road & McKellips Road Drainage System

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

0 750 1,500 Feet

N

115th Avenue/Union Hills Drive Drainage Improvements

PCN: 450.07.31

Bobbie Ohler, P.E., Project Manager
602-506-2943
bao@mail.maricopa.gov

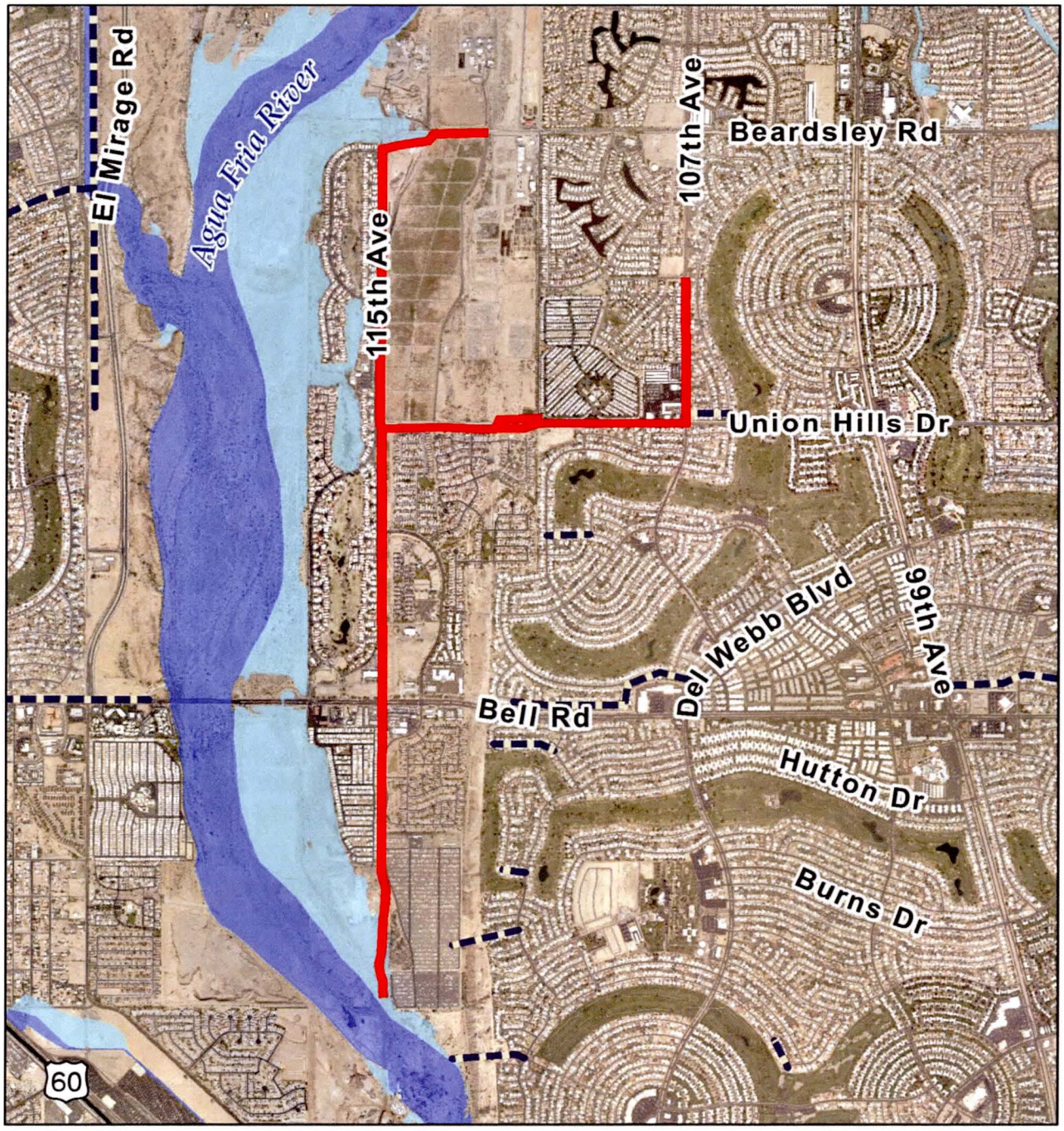
District: 4
Jurisdiction: Peoria, Surprise & MCDOT
Origin: FY 2012 Prioritization Procedure
Resolution: FCD 2011R009
Agreement: FCD 2012A005

The area downstream of 107th Avenue and Union Hills Drive has historically experienced flooding. Existing drainage systems along Union Hills Drive are considered inadequate. The main goal of the project is to intercept flood water that enters the project area from the northeast in the proposed channel and storm drain system and convey the water to the Agua Fria River via existing and improved channels and/or storm drains.

The project, when complete, will provide a 100-year level of protection and includes approximately two miles of storm drains, channel and basin improvements, maintenance roads adjacent to the project, and associated structures and features. Roadway intersection improvements will be included, to allow capture of storm water into the new system.

Project final design is in progress. The project will be constructed in phases. Phase one, scheduled for construction in FY 2016 will improve the existing Sun City Drain along 115th Avenue from the Agua Fria River to Bell Road; widen and improve the channel at the northeast corner of 115th Avenue and Bell Road to ensure the 100-year flood flows travel under the road; improve the channel drainage along 115th Avenue from Bell Road to Union Hills Drive; and add storm drain and catch basins at the intersection of 115th Avenue and Union Hills Drive.

Fiscal Year	Budget
FY 2016	$3,820,000
FY 2017	$50,000
FY 2018	$1,075,000
FY 2019	$2,510,000
FY 2020	$75,000
5-Year Program	$7,530,000



115th Avenue/Union Hills Drive Drainage Improvements

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

0 1,500 3,000 Feet

N

Bullard Wash Phase II

PCN: 470.13.31

Don Rerick, P.E., Project Manager
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djr@mail.maricopa.gov

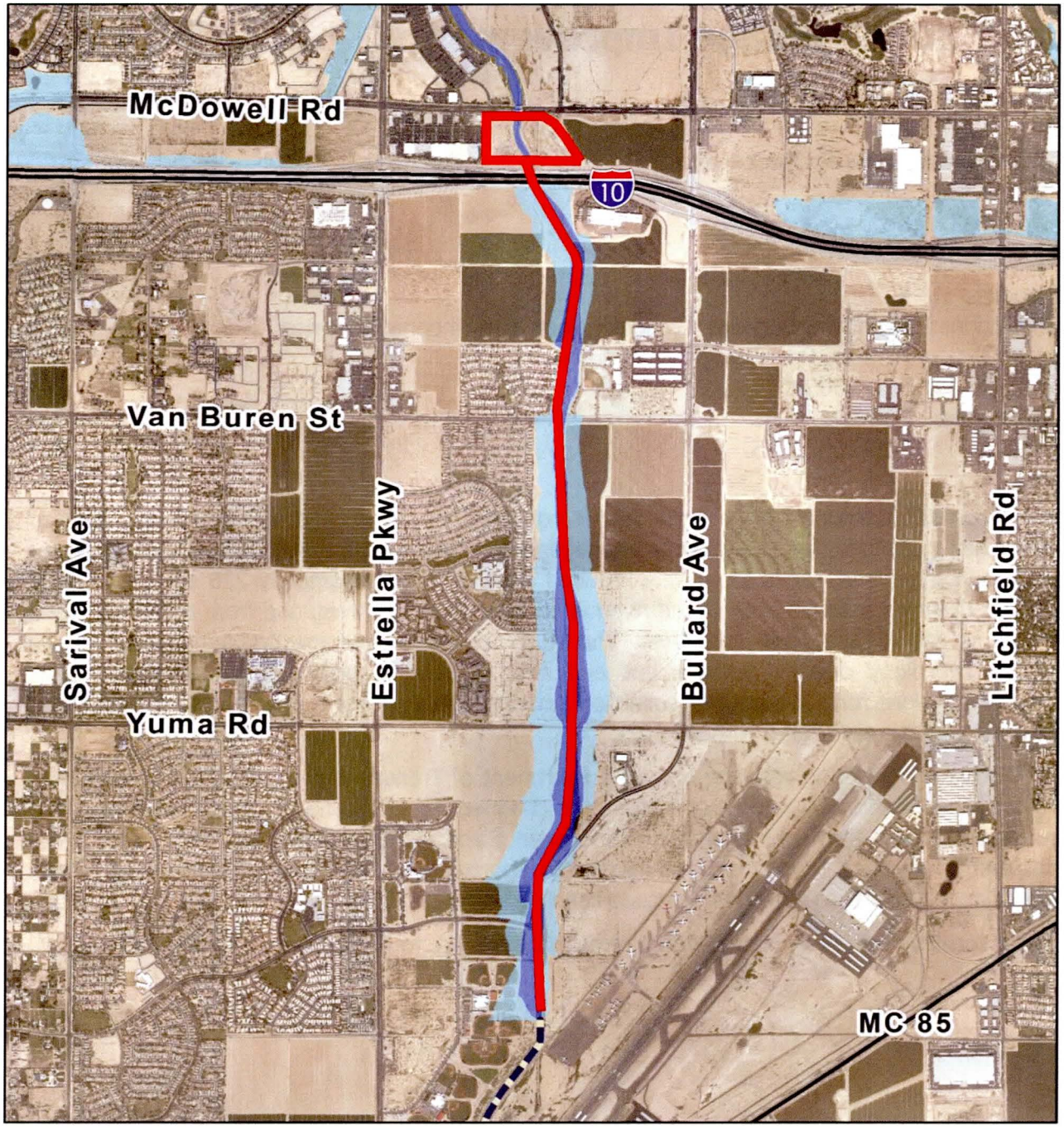
Districts: 4, 5
Jurisdiction: Goodyear
Origin: FY 2002 Prioritization Procedure
Resolutions: FCD 2000R016, 2000R016A
Agreements: FCD 2001A006, 2003A002, 2006A010, 2003A011

Bullard Wash is included within the Loop 303 Corridor/White Tanks Area Drainage Master Plan, which recommends wash improvements. Phase I of the project, from the Gila River to Lower Buckeye Road, was constructed by the District in partnership with the City of Goodyear. Phase II includes an earthen/greenbelt channel along the Bullard Wash alignment from Lower Buckeye Road to McDowell Road and a detention basin just south of McDowell Road. Landscaping and trails are anticipated along the channel alignment and within the basin.

The project will channelize the floodplain north of the Phoenix-Goodyear Airport, reducing the floodplain width and protecting the Phoenix-Goodyear Airport and nearby development from flooding. This stormwater would otherwise collect in streets, farm fields and residential and commercial areas. Design of Bullard Wash from Lower Buckeye Road to I-10 is complete, and IGAs with the city for construction of the project are in place.

Design and construction schedule is dependent upon the availability of funding and will likely be phased, with the majority of work being completed outside the five-year CIP.

Fiscal Year	Budget
FY 2016	$5,000
FY 2017	$2,000
FY 2018	$5,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$18,000



Bullard Wash Improvements - Phase II

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 1,500 3,000 Feet

Loop 303 Drainage Improvements

PCN: 470.14.31

Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

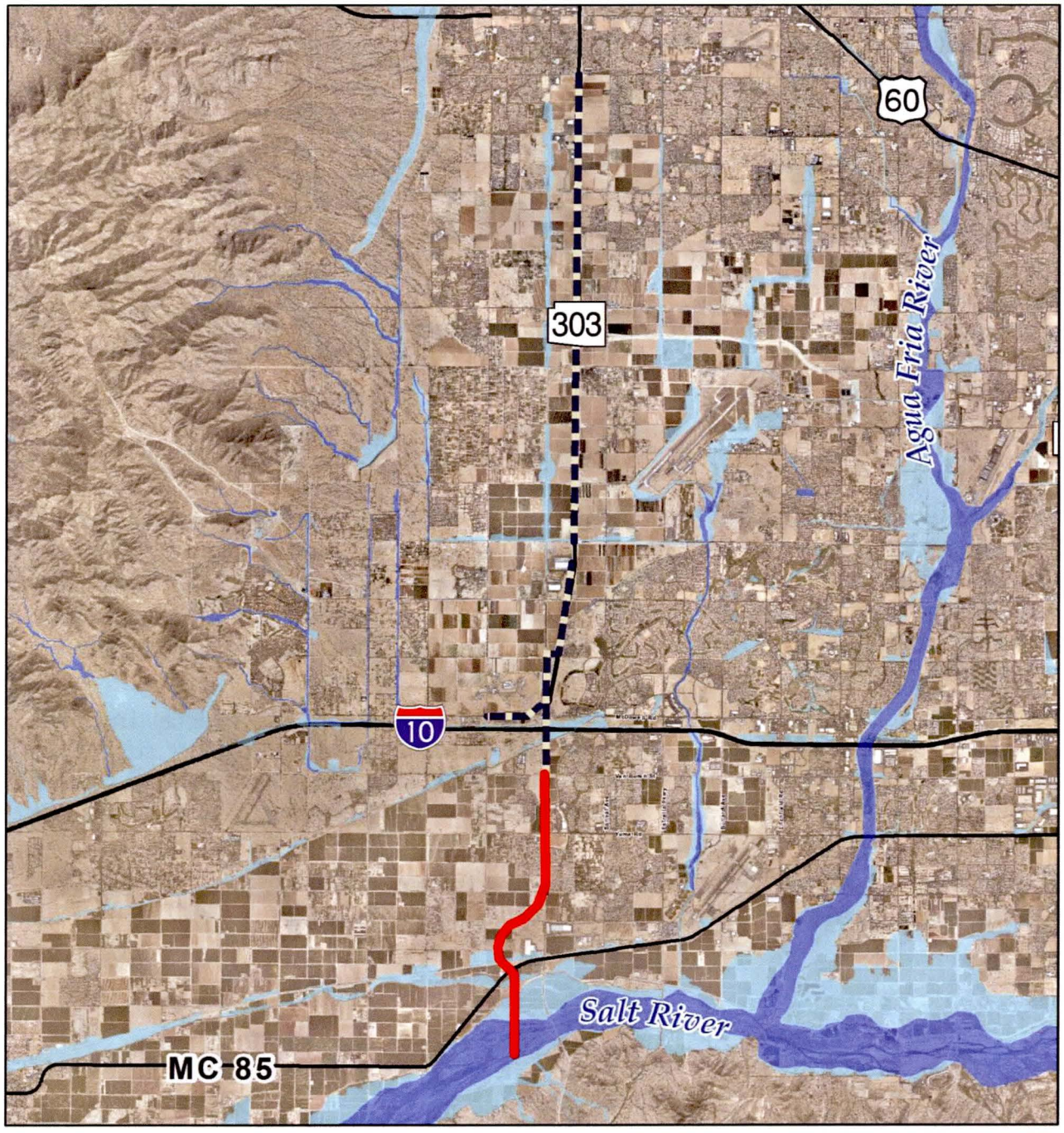
District: 4
Jurisdictions: Avondale, Buckeye, Glendale, Goodyear, Phoenix, Surprise
Origin: FY 2006 Prioritization Procedure
Resolution: FCD 2005R017
Agreements: FCD 2007A003
FCD 2007A005

The Loop 303 Corridor/White Tanks ADMP consisted of an area drainage master plan to determine guidelines for stormwater management and structural mitigation measures for flooding in the White Tanks area. This included analysis of approximately 220 square miles of watershed, which extends from Grand Avenue south to the Gila River, and from the White Tank Mountains east to the Agua Fria River. The study identified drainage problems, updated the existing hydrology due to development and new hydrologic methodology, developed cost-effective solutions for a stormwater collection and conveyance system and identified a preferred outfall alternative associated with SR-303L.

The District is partnering with the Arizona Department of Transportation (ADOT) in this regional project. The District will construct a drainage channel, 13 box culverts and other associated drainage features from approximately Van Buren Street to the Gila River, while ADOT will construct the project from Van Buren Street to approximately Bell Road. Construction of the District's portion of the project will precede construction of SR-303L.

Project construction is complete. Project remains active due to Rights-of-way condemnations.

Fiscal Year	Budget
FY 2016	$325,000
FY 2017	$0
FY 2018	$0
FY 2019	$0
FY 2020	$0
5-Year Program	$325,000



Loop 303 Outfall Channel

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 7,500 15,000 Feet

Northern Parkway Drainage Improvements – Phase II

PCN: 470.15.32

Burke Lokey, P.E., Project Manager
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burkelokey@mail.maricopa.gov

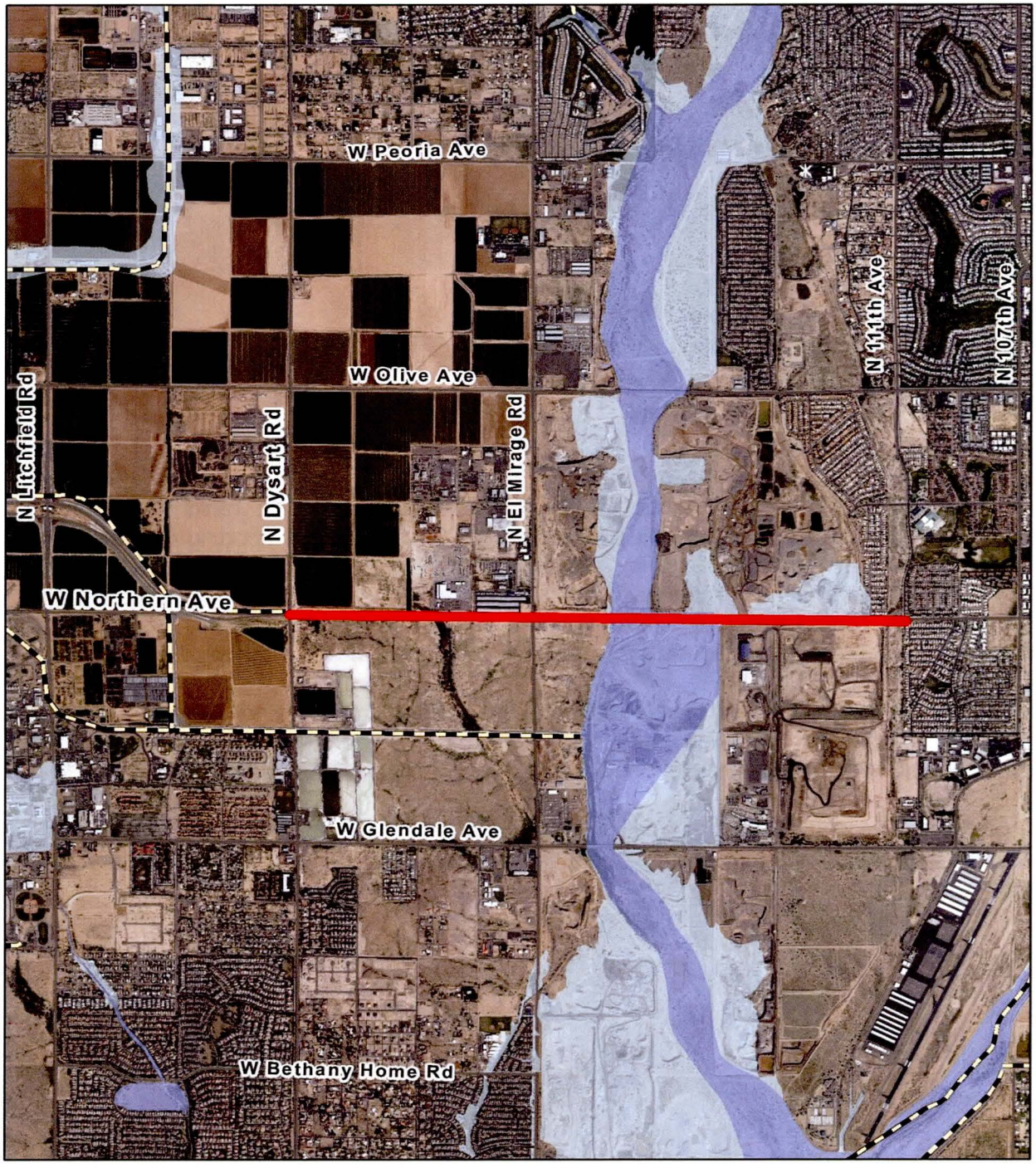
District: 4
Jurisdiction: Unincorporated Maricopa County and El Mirage
Origin: FY 2007, FY 2008, FY 2009 Prioritization Procedures
Resolution: FCD 2007R002 and FCD 2007R002A
Agreement: FCD 2010A008 and

The Maricopa County Department of Transportation (MCDOT) is the lead agency for the Northern Parkway project which extends 12.5 miles between SR-303L and US 60 (Grand Avenue). This new transportation facility will be a high capacity, limited access roadway with overpasses at major intersections. The project serves both roadway drainage and regional flood control purposes, providing 100-year protection for local farms, future development and roadway traffic.

The drainage solution for this phase 2 segment, a component of the regional Loop 303 Corridor/White Tanks Area Drainage Master Plan Update, constructs a new channel, storm drain and basins along the new alignment of Northern Parkway from Dysart Road to 111th Avenue. The channel will intercept offsite storm water flows and convey this runoff to the Agua Fria River.

Construction of phase two, by MCDOT, is scheduled to start during FY 2016. The District is contributing cost share to the regional flood control features of the project.

Fiscal Year	Budget
FY 2016	$10,000
FY 2017	$10,000
FY 2018	$12,000
FY 2019	$1,010,000
FY 2020	$2,015,000
5-Year Program	$3,057,000


W Peoria Ave
W Olive Ave
W Northern Ave
W Glendale Ave
W Bethany Home Rd
N Litchfield Rd
N Dysart Rd
N El Mirage Rd
N 111th Ave
N 107th Ave
Northern Parkway Drainage Improvements Phase II
Existing Infrastructure
Floodplain
Floodway
Aerial Photography Fall 2014
N
0
2,000
4,000
Feet

Luke Air Force Base Flood Mitigation Improvements

PCN: 470.16.30

Gary Wesch, P.E., Project Manager
602-506-4592
garywesch@mail.maricopa.gov

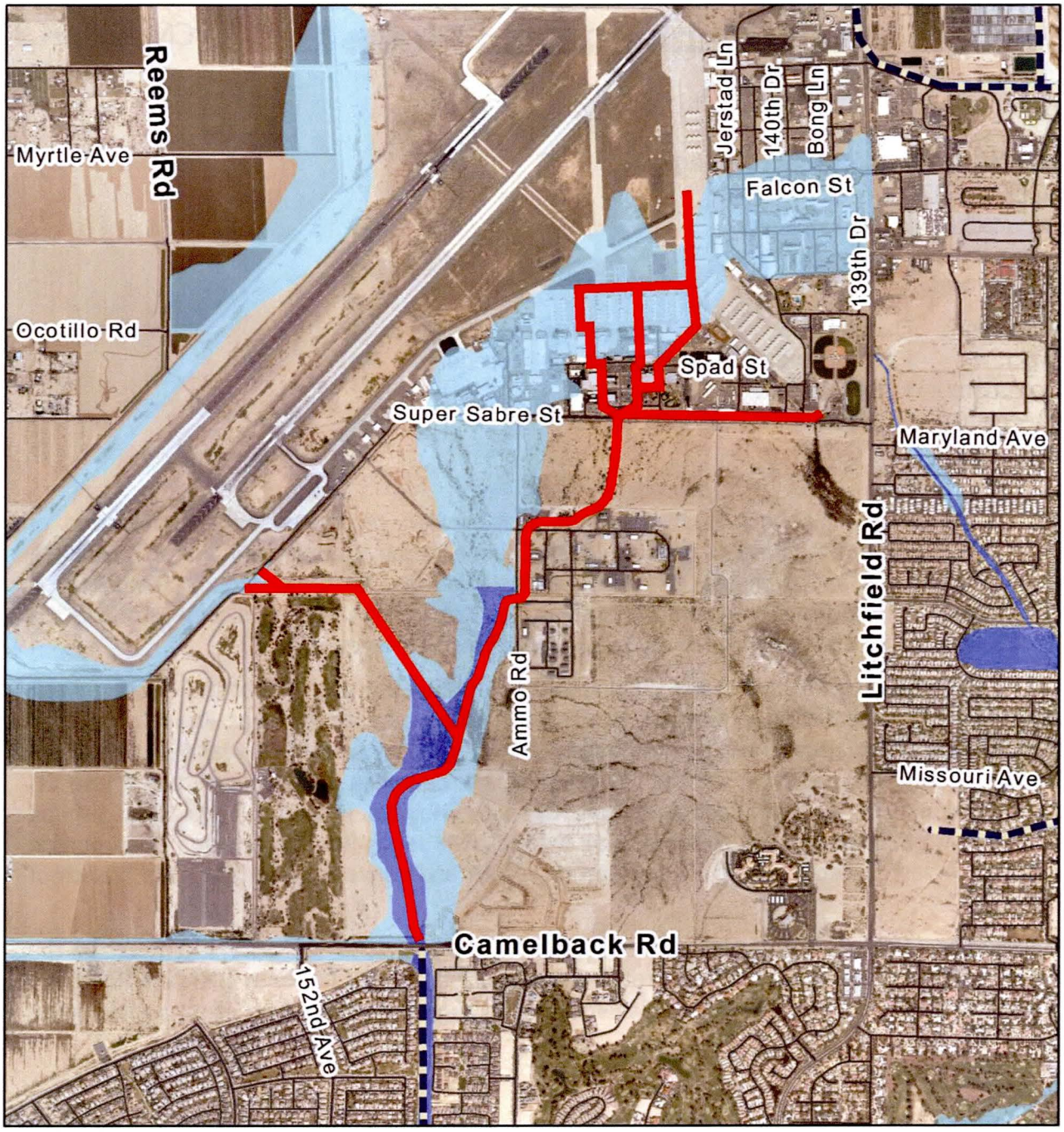
District: 4
Jurisdiction: Luke AFB, Glendale
Origin: FY 2012 Prioritization Procedure
Resolution: FCD 2012R001
Agreement: Pending

This project is an element generated from the Loop 303 Corridor/White Tanks Area Drainage Master Plan Update. The project will mitigate an existing delineated flooding hazard on and adjacent to Luke Air Force Base (AFB). Approximately 250 acres of on-base facilities within existing flood zones will be removed from the floodplain which includes aircraft hangars, command posts, control tower, simulator complex, dorms and drinking wells. An additional 300 acres of commercial/industrial/agricultural property south of the base limits would be protected.

The project includes rehabilitating and improving the existing storm drain system to collect and convey 100-year flows from sensitive areas on the base to the improved channel system, contain those flows within the channel system and provide a connection to the existing regional outfall.

The project's advancement into final design is dependent upon the availability of funds and the successful negotiation of an intergovernmental agreement between the District and Luke Air Force Base.

Fiscal Year	Budget
FY 2016	$4,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$7,000
5-Year Program	$18,000



Luke Air Force Base Flood Mitigation Improvements

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 1,500 3,000 Feet

Sonoqui Wash Channelization Phase II

PCN: 480.04.32

Gary Wesch, P.E., Project Manager
602-506-4592
garywesch@mail.maricopa.gov

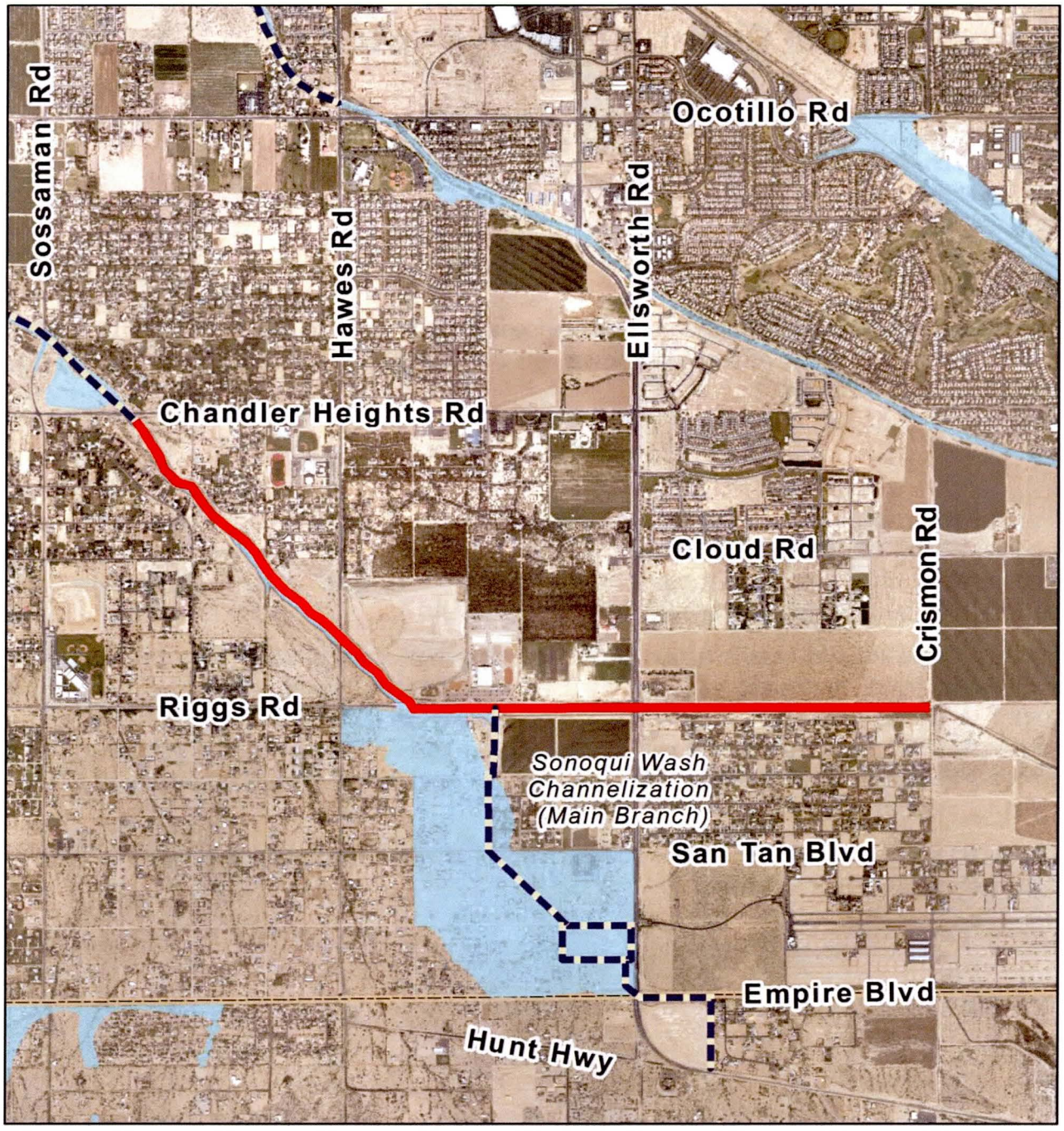
District: 1
Jurisdiction: Queen Creek
Origin: FY 2006 and FY 2007 Prioritization Procedures
Resolution: FCD 2001R001
Agreements: FCD 2008A008, 2009A011, 2010A004

The Queen Creek / Sonoqui Wash Hydraulic Master Plan recommended channelization of Sonoqui Wash. The first phase of Sonoqui Wash Channelization, completed in Fiscal Year 2009, included a basin at approximately Chandler Heights Road and Sossaman Road, channelization northwest to Ocotillo Road and approximately Power Road, and channelization west along the Ocotillo Road alignment to an outfall at Queen Creek Wash at Higley Road.

The second phase of Sonoqui Wash Channelization includes the segment of the existing wash southeast from Chandler Heights Road to Ellsworth Road, and along Riggs Road to Crismon Road. The proposed channel will be designed to collect and convey the 100-year flow to prevent flooding to property adjacent to the wash, while providing an outlet for future Phase III channelization. The existing floodplain from Chandler Heights Road to Riggs Road will be contained within the proposed 200-foot-wide channel. The Riggs Road to Crismon Road portion of Sonoqui Wash collects overland flow from the south and conveys it into the main branch of Sonoqui Wash.

Project Phase IIA was completed between Chandler Heights Road and Ellsworth Road by the District in 2012. The Town of Queen Creek will complete Phase IIB between Ellsworth Road and Crismon Road in the future, pending availability of funding and completion of an archeological recovery process.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$12,000



Sonoqui Wash Channelization (Chandler Heights to Crismon)

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 1,500 3,000 Feet

Sonoqui Wash Channelization Phase III

PCN: 480.04.34

Gary Wesch, P.E., Project Manager
602-506-4592
garywesch@mail.maricopa.gov

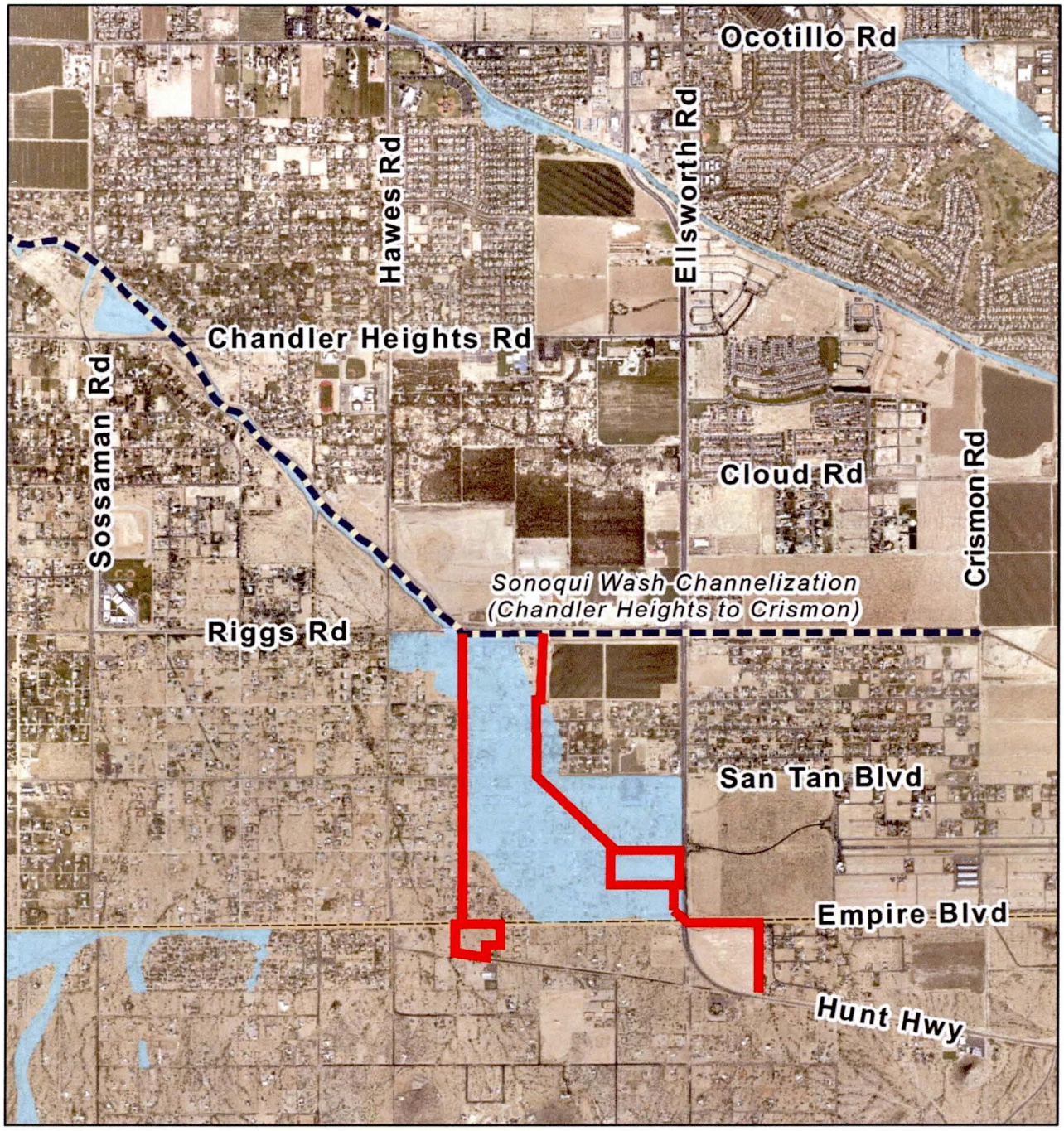
District: 1
Jurisdictions: Queen Creek, Unincorporated Maricopa County, Pinal County
Origin: FY 2010 Prioritization Procedure
Resolution: FCD 2001R001
Agreement: FCD 2011A007

The Queen Creek / Sonoqui Wash Hydraulic Master Plan recommended channelization of Sonoqui Wash. The first phase of channelization has been completed. The third phase of Sonoqui Wash Channelization will outfall to the second phase, which is being implemented by the District in partnership with the Town of Queen Creek.

The third phase includes channelization of the main branch of Sonoqui Wash, from Empire Road at Ellsworth Road, northwest to Riggs Road at approximately Hawes Road. This section is located in unincorporated Maricopa County, and the District anticipates funding the project unilaterally. The proposed channel will be designed to collect and convey the 100-year flow, remove a floodplain delineated over 345 acres and 217 homes, and provide protection to roads and other infrastructure.

Construction is being completed in two phases, the first of which was completed during FY 2013. Phase two is currently in construction.

Fiscal Year	Budget
FY 2016	$2,085,000
FY 2017	$0
FY 2018	$0
FY 2019	$0
FY 2020	$0
5-Year Program	$2,085,000



Sonoqui Wash Channelization (Main Branch)

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 1,500 3,000 Feet

Durango Regional Conveyance Channel 107th Avenue to the Agua Fria River

PCN: 565.04.32

Greg Jones, P.E., Project Manager
602-506-5537
glj@mail.maricopa.gov

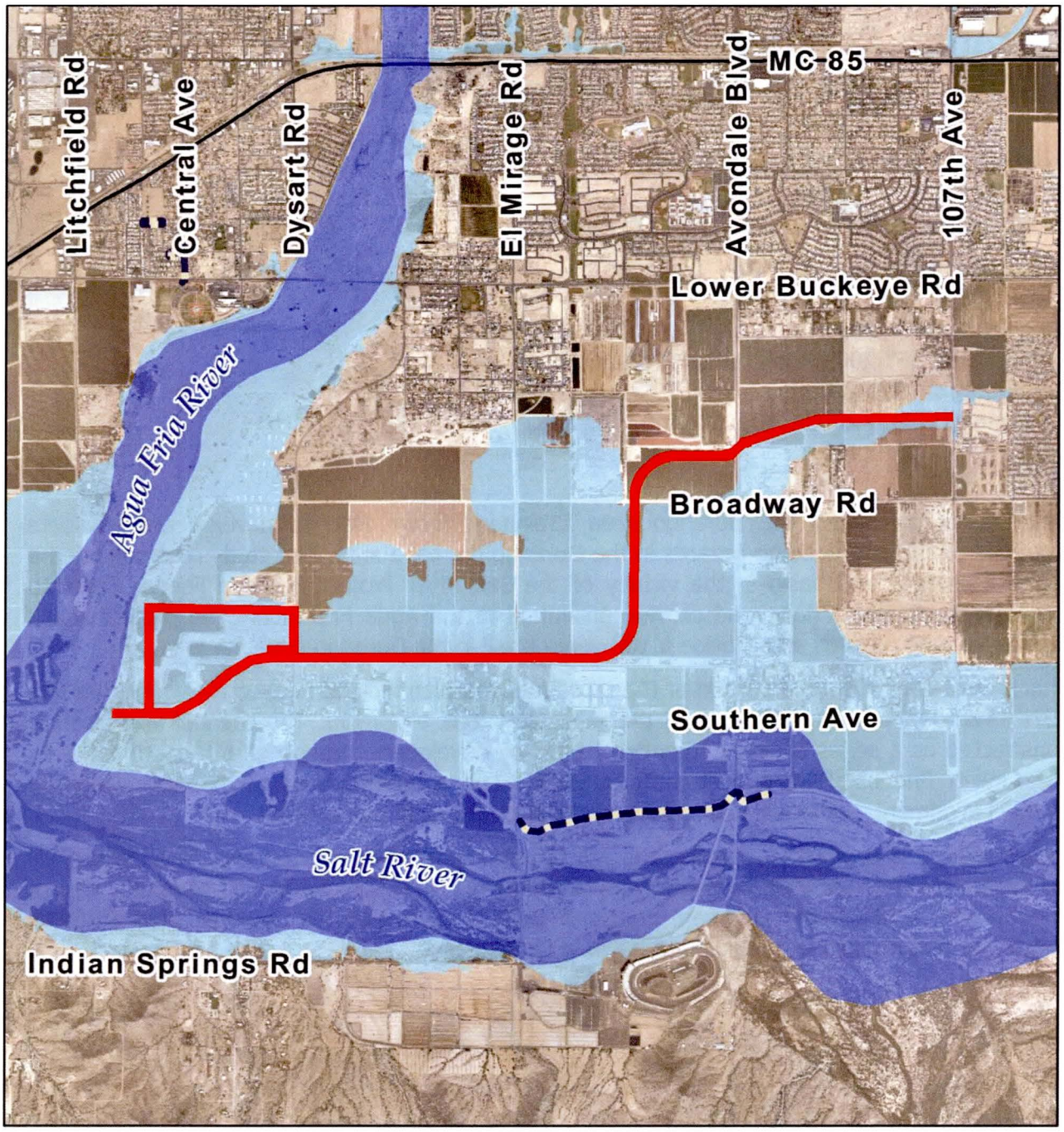
District: 5
Jurisdictions: Avondale, Unincorporated Maricopa County
Origin: FY 2003 Prioritization Procedure
Resolution: FCD 2006R020
Agreement: Pending

The District completed the Durango Area Drainage Master Plan to develop and evaluate solutions to mitigate flooding hazards in the Durango drainage area. The study recommended a regional channel and basin in the vicinity of the Salt River Project Buckeye Feeder Canal to intercept storm water flows and provide an outfall to the Agua Fria River. The project would reduce flooding hazards and provide a 100-year outfall in the Durango drainage area.

This project constructs the portion of the recommended plan located between 107th Avenue and the Agua Fria River, and between Lower Buckeye Road and Southern Avenue. The City of Avondale submitted the project for consideration under the Fiscal Year 2003 Prioritization Procedure, and the District anticipates participating in a cost-share agreement with the city.

Project implementation is dependent upon funding availability and the successful negotiation of an intergovernmental agreement between the District and the City of Avondale.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$12,000



Durango Regional Conveyance Channel (107th Avenue to Agua Fria) Phase III

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

0 2,000 4,000 Feet

N

Durango Regional Conveyance Channel 75th Avenue to 107th Avenue

PCN: 565.04.33

Bobbie Ohler, P.E., Project Manager
602-506-2943
bao@mail.maricopa.gov

District: 5
Jurisdiction: Phoenix
Origin: FY 2003 Prioritization Procedure
Resolution: FCD 2008R007
Agreements: FCD 2008A010, 2009A007

The District completed the Durango Area Drainage Master Plan to develop and evaluate solutions to mitigate flooding hazards in the Durango drainage area. The study recommended a regional channel and basin in the vicinity of the Salt River Project Buckeye Feeder Canal to intercept storm water flows and provide an outfall to the Agua Fria River. The project would reduce flooding hazards and provide a 100-year outfall in the Durango drainage area.

This project constructs the portion of the recommended plan located between 75th Avenue and 107th Avenue, one-half mile north of the Broadway Road alignment. The channel was partially constructed as a series of linear retention basins by developers through efforts coordinated by the City of Phoenix. The project includes design and construction of two basins along the channel alignment, additional channel segments and additional box culverts.

Project design is complete. Construction will be accomplished in two phases. The District will be the lead and construct the downstream portion from 107th Avenue to 83rd Avenue. City of Phoenix will construct the upstream portion from 83rd Avenue to 75th Avenue. The District's phase one construction is scheduled to begin in FY 2020.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$4,225,000
5-Year Program	$4,234,000

Durango Regional Conveyance Channel (75th Avenue to 107th Avenue) Phase II

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

0 2,000 4,000 Feet

N

Van Buren Street Channel
99th Avenue to the Agua Fria River

PCN: 565.04.35

Gary Wesch, P.E., Project Manager
602-506-4592
garywesch@mail.maricopa.gov

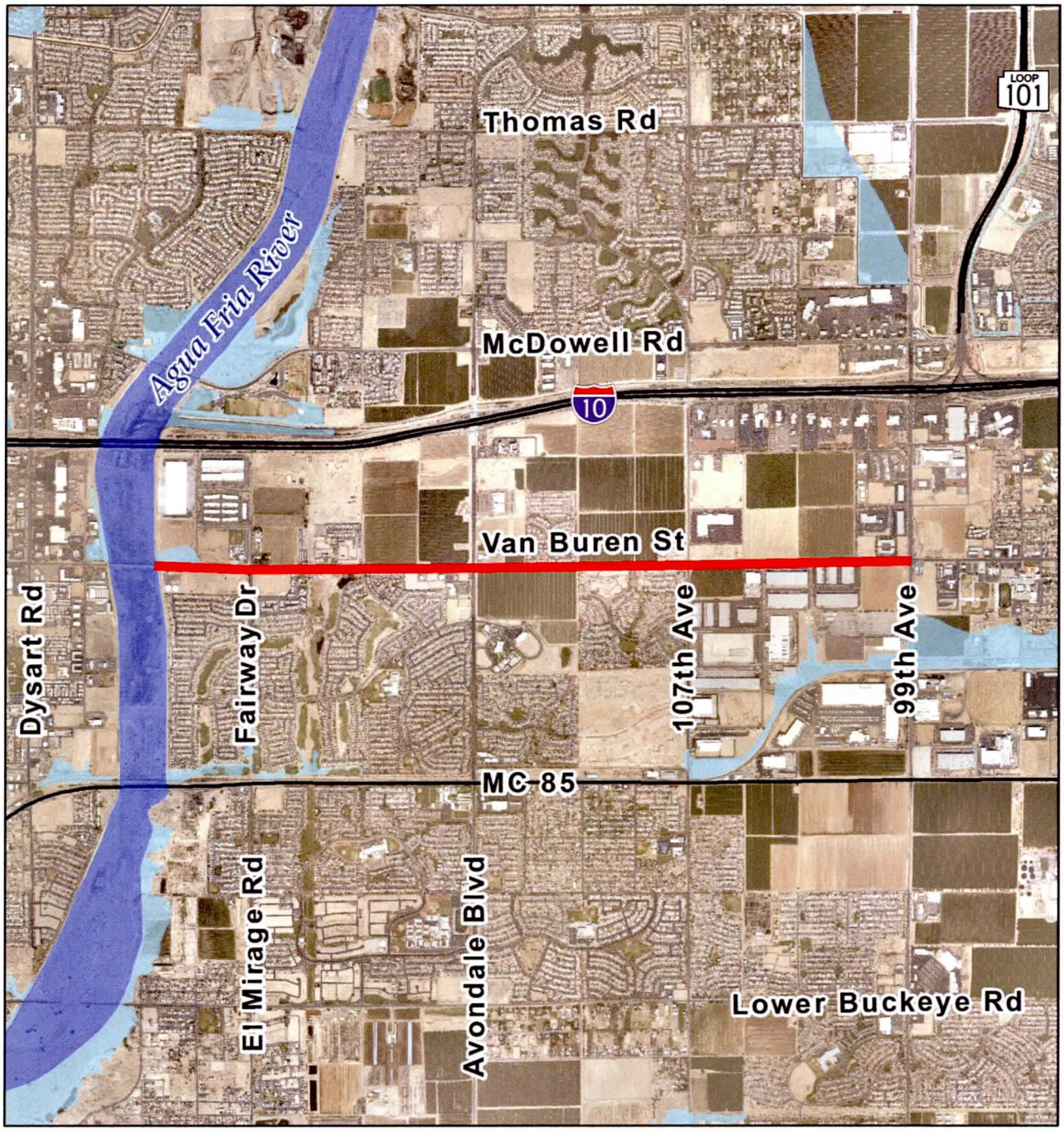
District: 5
Jurisdiction: Avondale
Origin: FY 2011 Prioritization Procedure
Resolution: FCD 2012R006
Agreement: FCD 2012A017

The Van Buren Street Channel is a component of Avondale's Van Buren Multi-use Corridor Project. It is designed to provide a drainage system along Van Buren Street carrying stormwater west of 103rd Avenue to the Agua Fria River.

The channel project will improve stormwater drainage in the Avondale City Center at Avondale Boulevard (115th Avenue) and Van Buren Street, and solve other crucial drainage issues for current and future development along Van Buren Street. When completed, the channel will provide flood hazard protection up to the 10-year storm event (10% chance of occurring in a year).

The City of Avondale, as the project lead, will design and construct the project. Project is currently scheduled to start during FY 2018.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$5,000
FY 2018	$48,000
FY 2019	$50,000
FY 2020	$2,680,000
5-Year Program	$2,785,000



Van Buren Street Channel (99th Avenue to Agua Fria River)

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 2,000 4,000 Feet

Bethany Home Road Storm Drain 59th Avenue to 79th Avenue

PCN: 620.03.34

Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

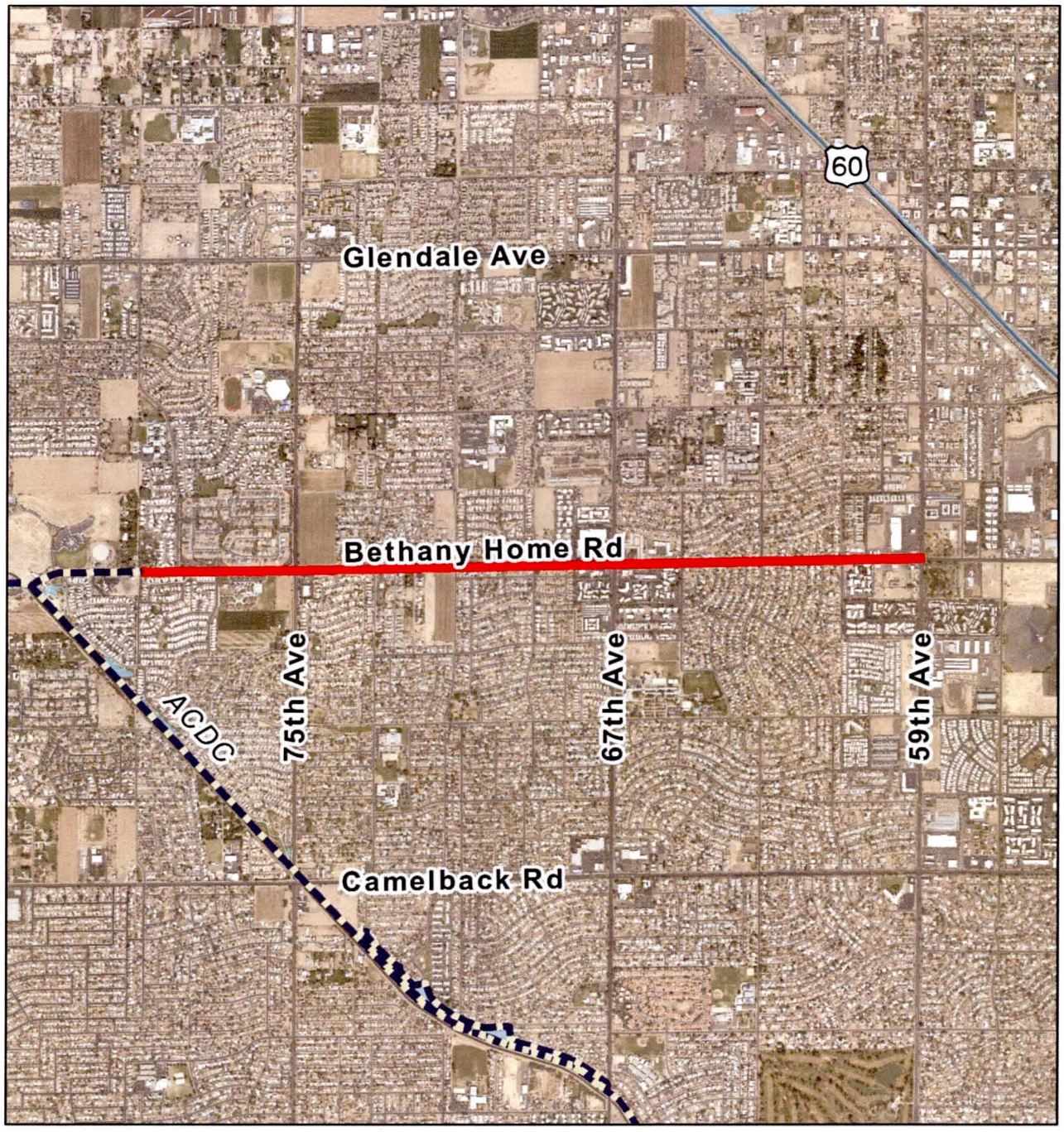
District: 5
Jurisdiction: Glendale
Origin: FY 1999 Prioritization Procedure
Resolution: FCD 98-12, 98-12A
Agreements: FCD 2000A013, 2002A003

The Bethany Home Road Storm Drain project, resulting from the District's Maryvale Area Drainage Master Study, collects and conveys sheet flow that has historically flooded the Maryvale neighborhood in the City of Glendale.

The project consists of a 10-year storm drain in Bethany Home Road that ultimately conveys flows to the New River through the Bethany Home Outfall Channel. The City of Glendale is the lead agency for project design and construction, and the District will contribute 50 percent of the project cost.

Final design and construction schedule is dependent upon funding availability and partner commitment.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$12,000



Bethany Home Road Storm Drain (79th Avenue to 59th Avenue)

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 1,400 2,800 Feet

Downtown Phoenix Drainage System

PCN: 625.01.30

Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

District: 5
Jurisdiction: Phoenix
Origin: FY 2008 Prioritization Procedure
Resolution: FCD 2008R001
Agreements: FCD 2008A001, 2009A009

The Fiscal Year 2008 Prioritization Procedure recommended this project as a component of the Downtown Phoenix Drainage Improvements Project that was concurrently being studied under the Metro ADMP. The Metro ADMP subsequently recommended the Downtown Phoenix Drainage Improvements Project as a subset of its recommended downtown alternative.

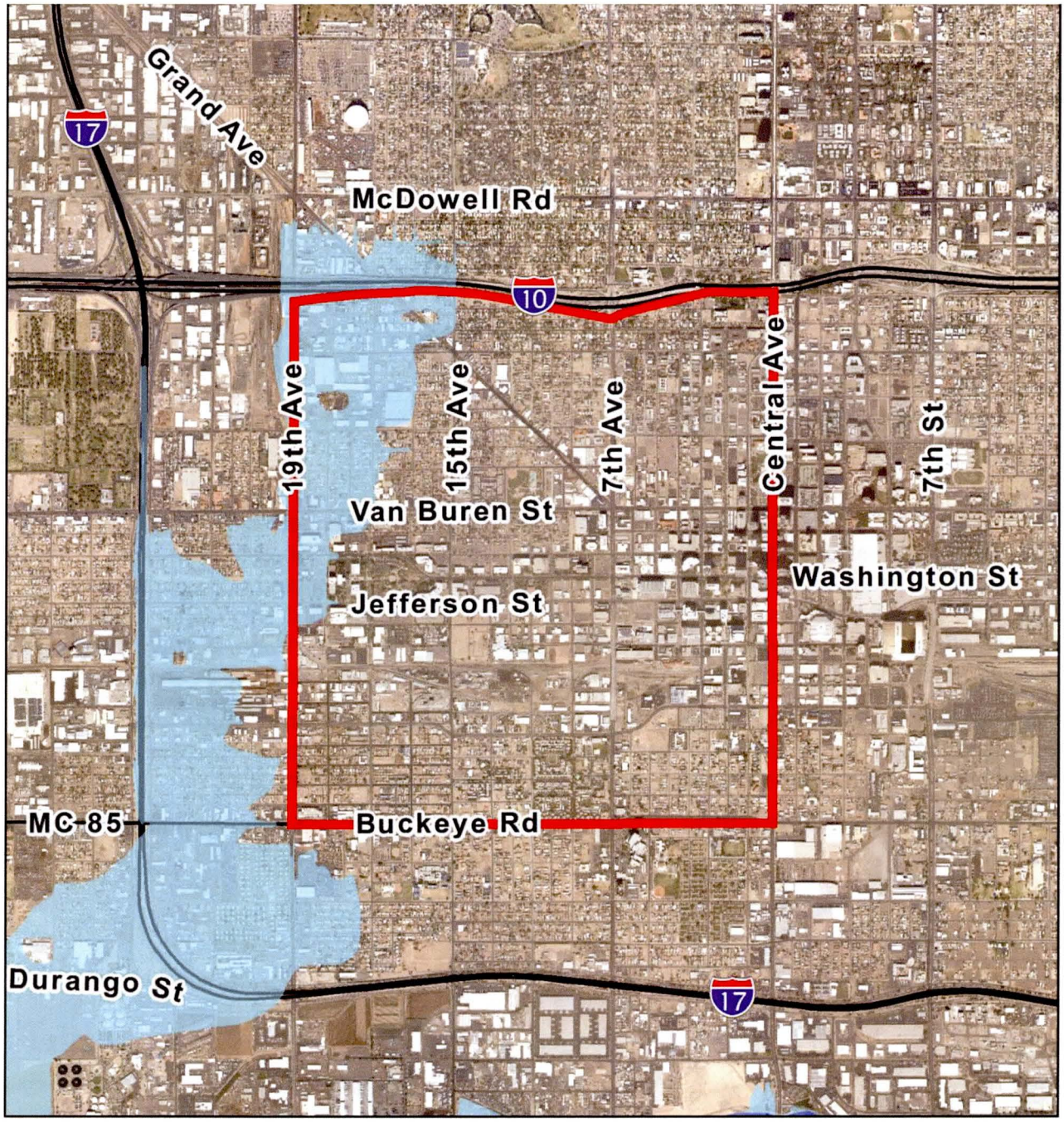
When combined with the complete downtown system recommended by the ADMP, this project will deliver a 10-year level of protection for the downtown area.

The project involves the installation of drainage features along 1st Avenue, from Van Buren Street to Hadley Street; along Jefferson Street from 19th Avenue to 3rd Avenue; and along Fillmore Street from 9th Avenue to 3rd Avenue. Specific alignments were altered somewhat during final design.

The City of Phoenix is acting as lead agency for project design and construction, and the District will contribute 50 percent of the project cost.

Project construction of all project phases is complete. Project remains active to complete required archeological reporting.

Fiscal Year	Budget
FY 2016	$55,000
FY 2017	$54,000
FY 2018	$0
FY 2019	$0
FY 2020	$0
5-Year Program	$109,000



Downtown Phoenix Storm Drain Improvements

Floodway

Floodplain

Aerial Photography - Fall 2013

0 1,400 2,800 Feet

N

Arcadia Drive Storm Drain
Camelback Road to Lafayette Boulevard

PCN: 625.02.32

Bobbie Ohler, P.E., Project Manager
602-506-2943
bao@mail.maricopa.gov

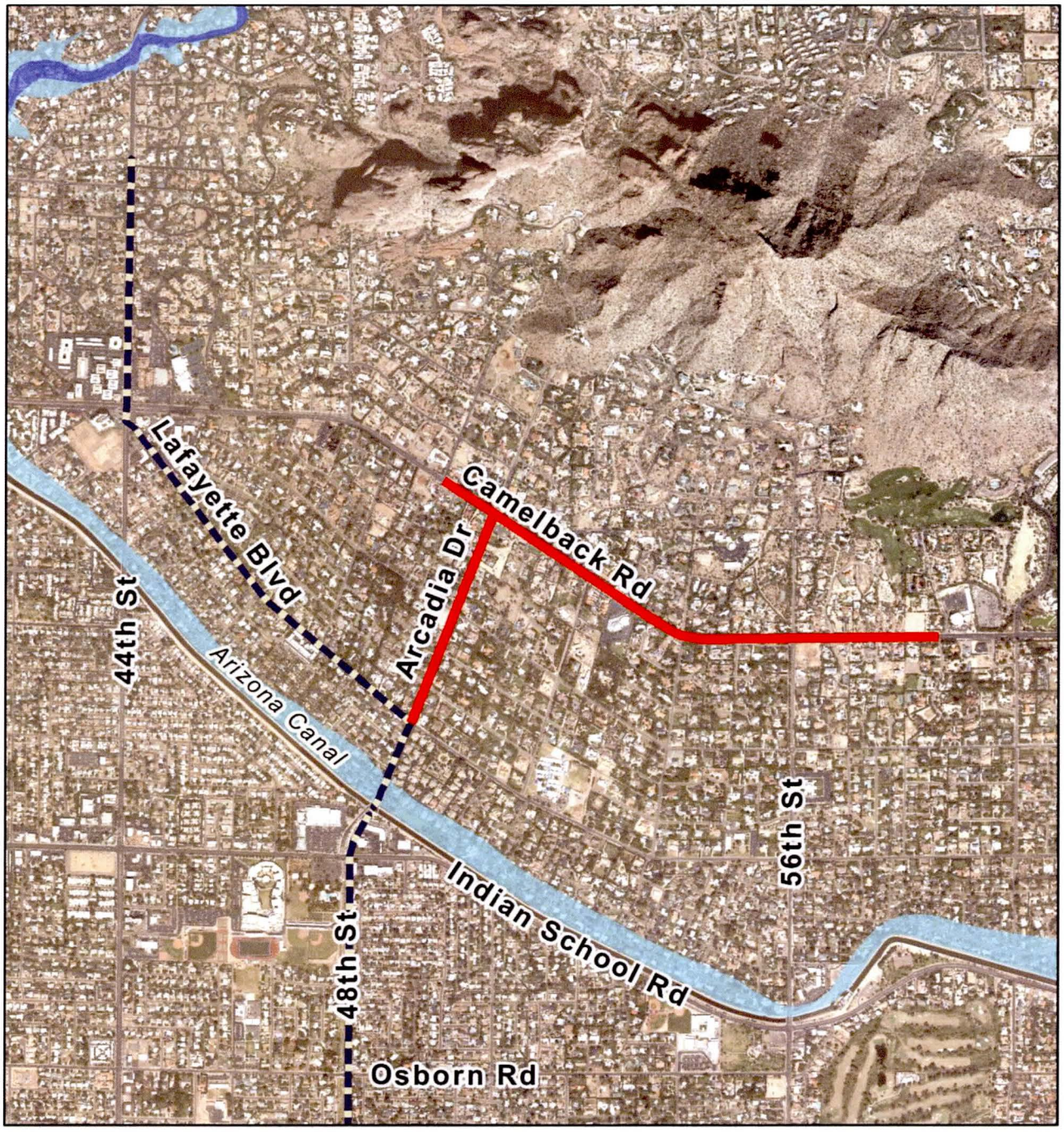
District: 2
Jurisdiction: Phoenix
Origin: FY 2011 Prioritization Procedure
Resolution: FCD 2008R012
Agreements: FCD 2009A025, 2009A025A

The greater Arcadia Area Drainage Improvements Project, recommended by the District's Metro Area Drainage Master Plan, is being accomplished in multiple phases. The first phase constructed the outfall (the Old Cross Cut Canal Improvement Project), and was completed in FY 2012. The second phase, completed in FY 2013, constructed storm drains, catch basins and laterals, primarily along Lafayette Boulevard, Camelback Road and Village Drive. Flows are collected upstream (north) of the Arizona Canal and outlets to the Old Cross Cut Canal.

This third phase of the Arcadia Area Improvement project will construct storm drains, catch basins and laterals primarily along Arcadia Drive and Camelback Road east of Arcadia Drive. This project will provide the outlet from Camelback Road to the Old Cross Cut Canal.

The implementation of phase three is dependent on both District and City of Phoenix funding availability.

Fiscal Year	Budget
FY 2016	$2,000
FY 2017	$2,000
FY 2018	$2,000
FY 2019	$3,000
FY 2020	$3,000
5-Year Program	$12,000



Arcadia Drive and Camelback Road Strom Drain Improvements

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

0 1,000 2,000 Feet

N

Circle K Park Detention Basin

PCN: 640.XX.X1

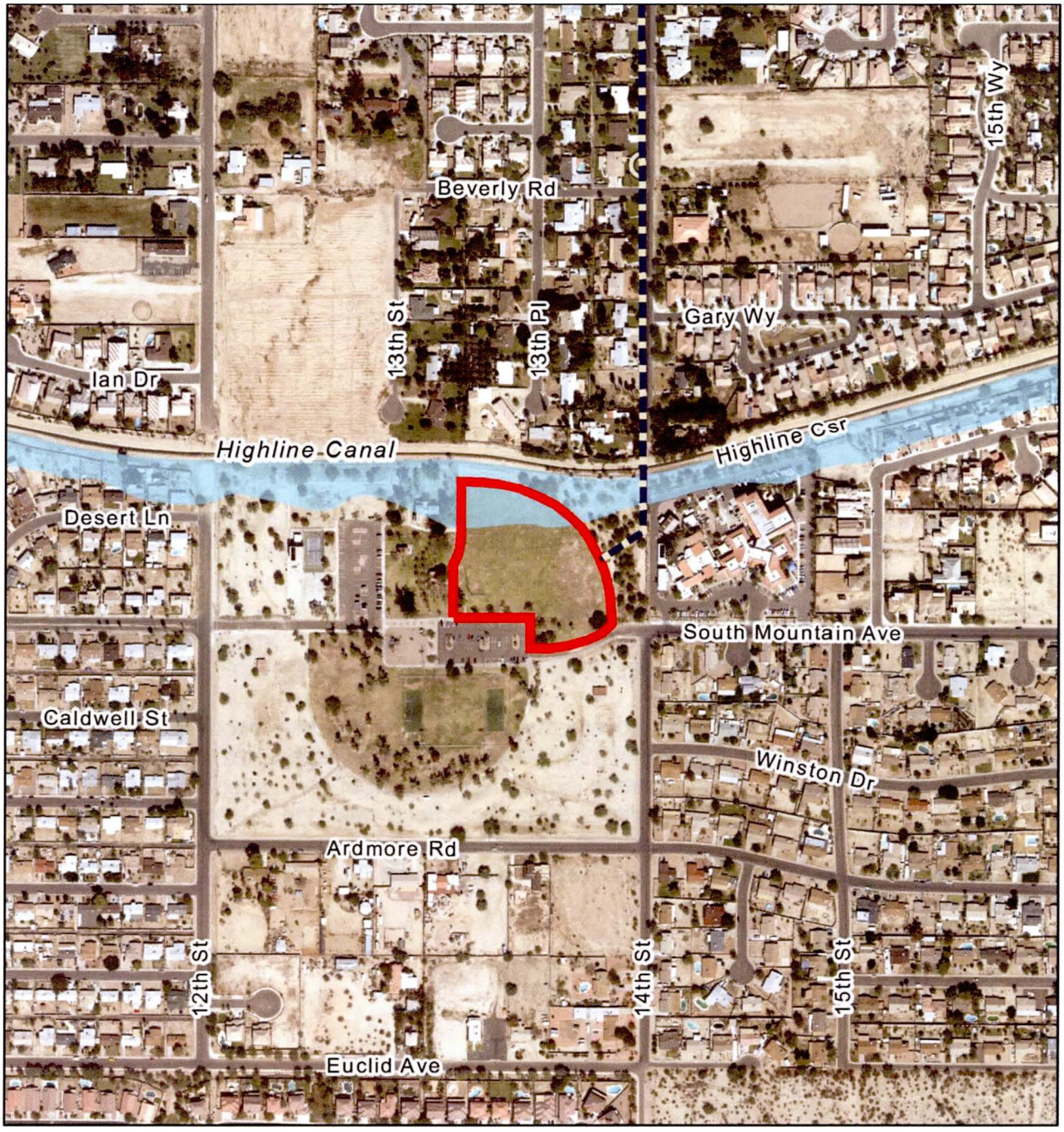
Afshin Ahouraiyan, P.E., Project Manager
602-506-4519
afa@mail.maricopa.gov

District: 5
Jurisdiction: Phoenix
Origin: FY 2013 Prioritization Procedure
Resolution: Pending
Agreement: Pending

The District's Hohokam Area Drainage Master Study/Plan has identified drainage and flooding hazards in the south Phoenix area. Rainfall runoff from the South Mountain flows from the south to the north towards the Highline Canal. Approximately 0.65 square miles of watershed drains directly to the location of the Circle K Park and accumulates at that location. High volumes of floodwater will overtop the Highline Canal and proceed to pond in residential areas north of the canal. It is anticipated the project will construct a 35 acre-foot detention basin and provide a 10-year level of flood protection.

Design and construction schedule is dependent upon funding availability and the successful negotiation of an intergovernmental agreement between the District and City of Phoenix.

Fiscal Year	Budget
FY 2016	$0
FY 2017	$0
FY 2018	$0
FY 2019	$0
FY 2020	$10,000
5-Year Program	$10,000



Circle K Park Detention Basin

Existing Infrastructure

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 250 500 Feet

Ashbrook Wash Channelization

PCN: 670.10.30

Gary Wesch, P.E., Project Manager
602-506-4592
garywesch@mail.maricopa.gov

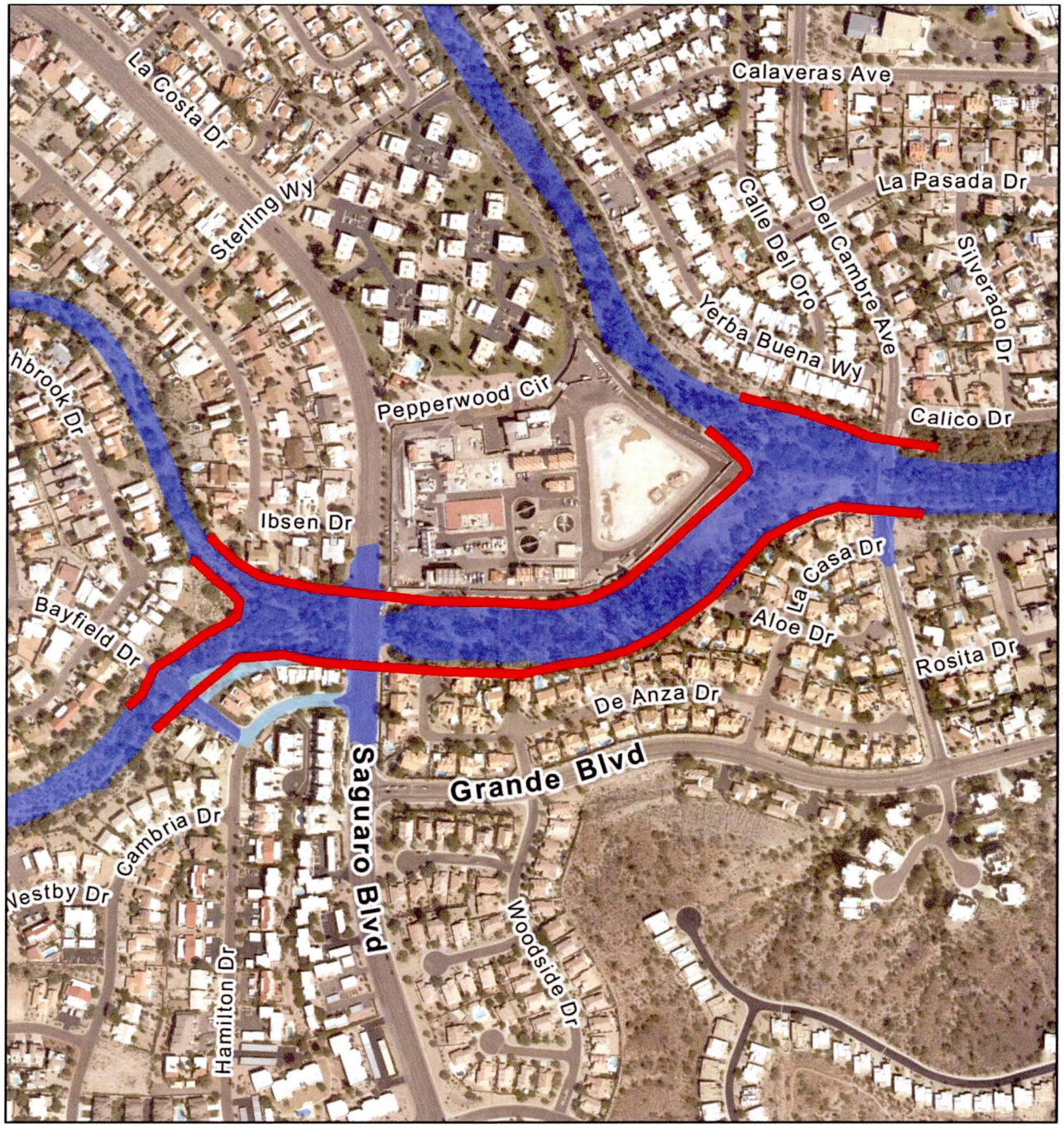
District: 2
Jurisdiction: Fountain Hills
Origin: FY 2012 Prioritization Procedure
Resolution: 2013R005
Agreement: 2013A009

Ashbrook Wash is the largest watercourse within the Town of Fountain Hills, having a watershed area of 13.06 square miles. The District's 1995 Floodplain Delineation Study for Fountain Hills showed deficiencies at the Golden Eagle Park Dam on Ashbrook Wash, due to overtopping and potential dam failure. Dam safety improvements were made to the Golden Eagle Park Dam in year 2000 to prevent its overtopping and failure in the 1/2 Probable Maximum Flood. However, those improvements increased the regulatory 100-year peak flow downstream.

The project will provide channel improvements to convey increased flood flow from the upstream dam and prevent the flooding of 13 residential properties adjacent to this wash reach, at the 100-year storm event. Improvements include replacement of corrugated metal pipes with new reinforced concrete box culverts, channel excavation, flood walls and re-vegetation.

Final design is complete. Construction is scheduled to begin and be completed during FY 2016.

Fiscal Year	Budget
FY 2016	$1,825,000
FY 2017	$2,000
FY 2018	$0
FY 2019	$0
FY 2020	$0
5-Year Program	$1,827,000



Ashbook Wash Improvements

Floodway

Floodplain

Aerial Photography - Fall 2013

0 250 500 Feet

N

East Maricopa Floodway Maintenance Road Paving

PCN: 698.10.30

Mike Duncan, P.E., Project Manager
602-506-4732
mwd@mail.maricopa.gov

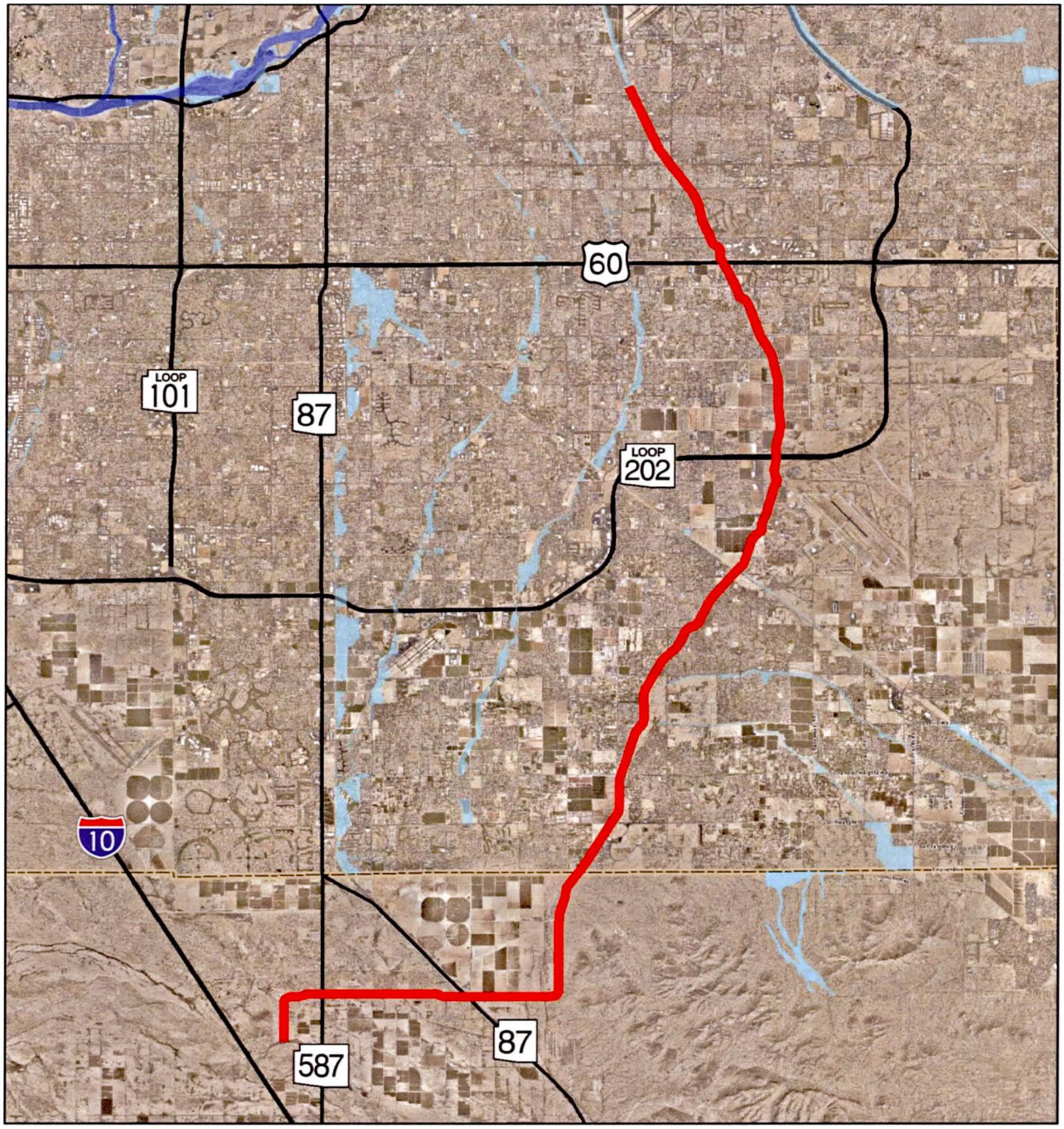
Districts: 1 & 2
Jurisdiction: Gilbert, Mesa
Origin: FY 2012 Prioritization Procedure
Resolution: FCD 2010R004
Agreement: None

Flood control facilities operated and maintained by the District were commonly built in the past with unpaved dirt maintenance roads. District maintenance activities require the use of these roads, potentially adversely impacting air quality. This project includes chip-seal improvements to much of the unpaved East Maricopa Floodway (EMF) maintenance roads.

The U.S. Soil Conservation Service (now Natural Resources Conservation Service) completed the EMF in 1989 in partnership with the District and others. This 27-mile long earthen channel runs parallel to the Roosevelt Water Conservation District canal from north of Brown Road to Hunt Highway, and continues in a southwesterly direction through the Gila River Indian Community to an outlet at the Gila River. The EMF is a principal flood control feature for the east valley, intercepting floodwater flow impacting the Buckhorn-Mesa, Apache Junction-Gilbert and Williams-Chandler watersheds. The EMF is operated and maintained by the District, with the exception of segments that run through privately owned golf courses.

This project includes chip-seal improvements to the unpaved EMF maintenance roads. Phase one of maintenance road improvements is complete. Future enhancements are dependent upon District funding availability.

Fiscal Year	Budget
FY 2016	$5,000
FY 2017	$5,000
FY 2018	$10,000
FY 2019	$10,000
FY 2020	$10,000
5-Year Program	$40,000



East Maricopa Floodway Maintenance Road Paving

Floodway

Floodplain

Aerial Photography - Fall 2013

0 9,000 18,000 Feet

N

Small Project Assistance Program

Patrick Schafer, P.E., Program Manager
602-506-2206
patrickschafer@mail.maricopa.gov

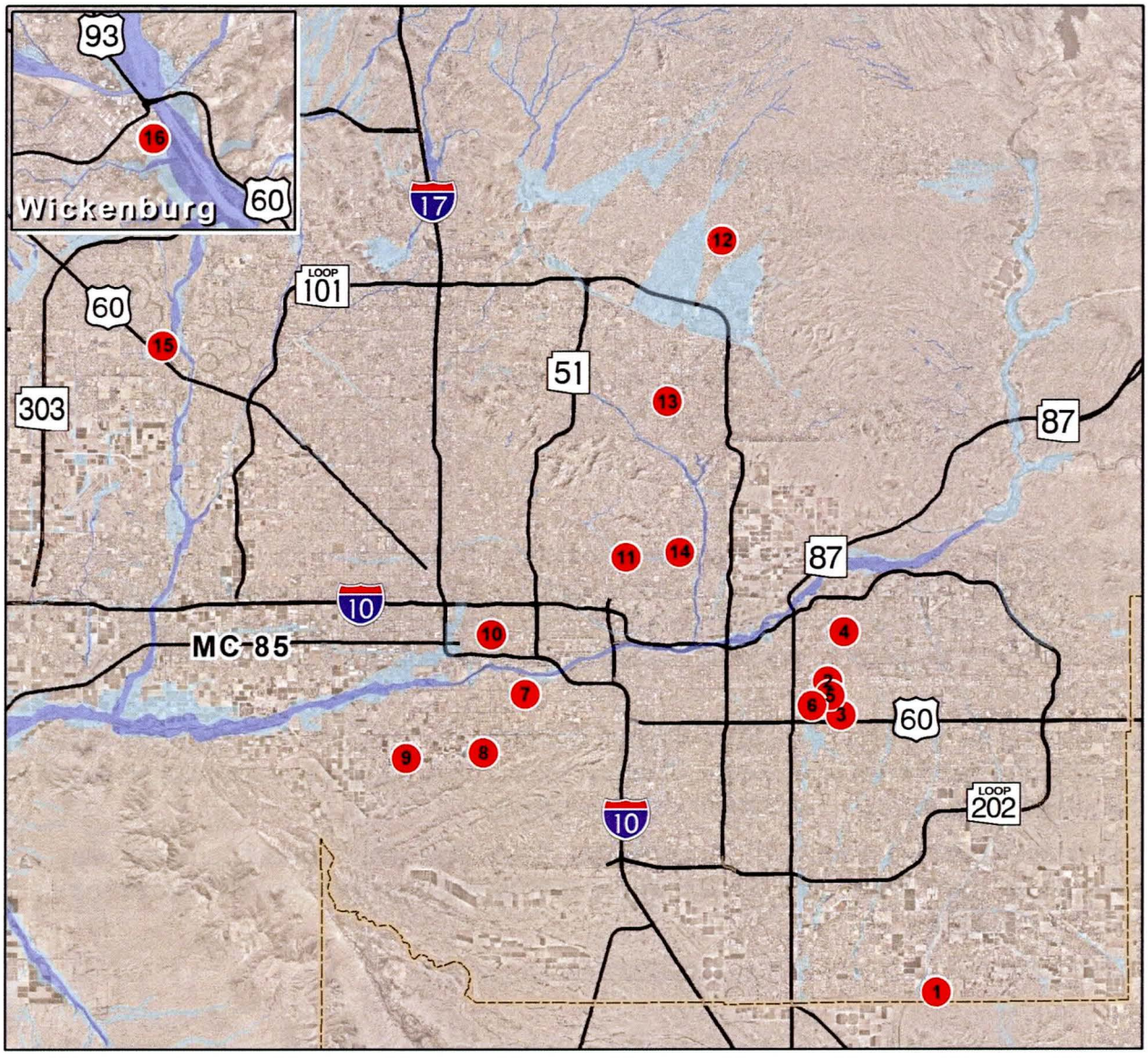
District: All
Jurisdiction: All
Origin: Small Project Assistance Program
Resolution: FCD 2009R003, 2009R003A and 2009R003B
Agreement: Various

Localized flood hazards exist throughout Maricopa County, and the mitigation of these localized flood hazards, on a limited basis, is consistent with the District's statutory obligation. The District's Small Project Assistance Program is intended to provide financial assistance to the municipalities of Maricopa County, on a limited basis, for implementation of local flood hazard mitigation capital projects. Among other stipulations, the highly structured program authorizes a $250,000 per-project District cost share cap for construction. Partner agencies have lead responsibilities and will operate and maintain all projects.

For Fiscal Year 2016, sixteen projects have been selected for District funding that, collectively, will reduce flows that have historically flooded over 300 residential and commercial properties.

- **Gilbert** – one project; FCD 2014A018;
- **Mesa** – five projects, FCD 2014A019, 2014A020, 2014A021, 2014A022 & 2014A023;
- **Phoenix** – five projects, FCD 2014A014, 2014A025, 2015A006, 2015A007 & 2015A008;
- **Scottsdale** – three projects, FCD 2014A026, 2014A027 & 2014A028;
- **Surprise** – one project, FCD 2014A029;
- **Wickenburg** – one project, FCD 2015A009.

Fiscal Year	Budget
FY 2016	$3,000,000
FY 2017	$2,000,000
FY 2018	$2,000,000
FY 2019	$2,000,000
FY 2020	$2,000,000
5-Year Program	$11,000,000



1 . Coldwater Blvd Channel from Tucana Ln to Claiborne Ave
2 . 2nd Avenue and Solomon Drainage Improvements
3 . Emerald Acres Drainage Improvements
4 . Royal Palms Drainage Improvements
5 . 9th Avenue & Horne Detention Basin
6 . 10th Avenue & Sirrine Drainage Improvements
7 . 16th Street & Violet Drive Storm Drain Improvements
8 . 3rd Avenue and Dobbins Road Storm Drain Improvements
9 . 35th Avenue Storm Drain from Dobbins Road to Baseline Road
10 . 1st Street Storm Drain from Lincoln Street to Buchanan Street
11 . Calle Redonda Flood Mitigation (5253 E. Calle Redonda)
12 . 8525 E Pinnacle Peak Road Drainage Improvements
13 . Paradise Drive Storm Drain from 67th Street to 68th Street
14 . East 3rd Avenue & North Craftsman Court Drainage Improvement
15 . Jerry Street and Rimrock Road Drainage Improvements
16 . Hassayampa Elementary School Drainage Improvements

Fiscal Year 2016 Small Projects

Floodway

Floodplain

Aerial Photography - Fall 2013

N

0 4.25 8.5 Miles

Floodprone Property Assistance Program

Patrick Schafer, P.E., Program Manager
602-506-2206
patrickschafer@mail.maricopa.gov

District: All
Jurisdiction: All
Origin: Floodprone Property Assistance Program
Resolution: FCD 2006R003 and FCD 2006R003A
Agreement: None

The District has completed delineations covering about 68 percent of the approximately 6,000 miles of stream corridors in Maricopa County needing delineation for regulatory purposes. In many of the mapped areas, development took place prior to the floodplain mapping, and as floodplains were delineated, many residents learned that their homes were within regulatory floodplains.

The Floodprone Property Assistance Program (FPAP) involves the voluntary purchase of properties in flood hazard areas where structural solutions are infeasible or impractical. Program applicants are scored and ranked under objective criteria.

Existing structures on purchased properties are demolished and removed; property may be preserved as open space, sold, or leased for uses compatible with adjacent properties and floodplain regulations.

A placeholder has been set in future years for new acquisitions.

Fiscal Year	Budget
FY 2016	$0
FY 2017	$300,000
FY 2018	$300,000
FY 2019	$300,000
FY 2020	$300,000
5-Year Program	$1,200,000

Appendix A
Completed Capital Projects
Through Fiscal Year 2015 (Alphabetical)

Project	Map ID	Location	Year
10th St. Wash Detention Basin No. 1	49	12th St. and Peoria Ave.	1996
10th St. Wash Detention Basin No. 2	49	11th St. and Alice Ave.	1997
10th St. Wash Improvements (Alice to ACDC)	50	10th St., Alice Ave to ACDC at Griswold Rd. alignment	2008
23rd Ave. and Roeser Rd. Storm Drain and Basin	108	NE corner of 23rd Ave. and Roeser Rd.; outlets along Roeser Rd. and Broadway Rd.	2011
24th Ave. and Camelback Rd. Basin	53	24th Ave. and Camelback Rd.	2008
26th Ave. and Verde Ln. Basin	52	Verde Ln. alignment; 26th Dr. to I-17 Frontage Rd.	2007
35th Ave. and Dobbins Rd. Basin and Storm Drain	56	35th Ave. and Dobbins Rd.	2002
43rd Ave. and Baseline Rd. Basin	118	NE corner of 43rd Ave. and Baseline Road	2014
43rd Ave. and Southern Ave. Detention Basin	54	43rd Ave. and Southern Ave.	2005
43rd Ave. Storm Drain	54	43rd Ave., Broadway Rd. to Baseline Rd.	2000
48th St. Drain	63	San Francisco Canal, 48th St. to University Dr.	1981
48th St. Storm Drain	65	48th St., Baseline Rd. to 48th St. Drain	1988
51st Ave. Storm Drain (Bell Rd. to Thunderbird Rd.)	24	51st Ave., Bell Rd. to Thunderbird Rd.	1991
59th Ave. Storm Drain (Bell Rd. to ACDC)	24	59th Ave., Bell Rd. to ACDC	1991
67th Ave. Storm Drain (Bell Rd. to ACDC)	24	67th Ave., Bell Rd. to ACDC	1990
67th Ave. Storm Drain (Olive Ave. to ACDC)	34	67th Ave., Olive Ave. to ACDC	2009
75th Ave. Storm Drain & DRCC Phase 1	111	Area bounded by 64th Ave. and 71st Ave. from south of Van Buren Ave. to Southern Ave.	2011
83rd Ave. and Pinnacle Peak Rd. Drainage Improvements	21	Area bounded by Calley Lejos (N), Willisams Rd. (S), 91st Ave. (W), 83rd Ave. (E)	2008
83rd Ave. Grade Control Structure (Skunk Creek)	25	83rd Ave. and Skunk Creek	2003
91st Ave. and Bell Rd. Drainage	24	91st Ave., Bell Rd. to Greenway Rd.; Greenway Rd., 91st Ave. to New River	1991
9th Ave. Storm Drain (Peoria Ave. to ACDC)	48	9th Ave., Peoria Ave. to ACDC	2008
Adobe Dam	29	Skunk Creek at Deer Valley Rd. alignment and 39th Ave. alignment	1982
Adobe St. Structures over EMF	90	Adobe St. 1/2 mi. east of Greenfield Rd.	1990
ADOT Pit and Diversion Channel	72	I-10, Elliot Rd. to 1/4 mi. south of Warner Rd.; I-10 and 1/4 mi. south of Warner Rd.	1987
Agua Fria Channelization	28	Agua Fria River, Camelback Rd. to 1/4 mi. south of Lower Buckeye Rd.	1988
Alma School Drain	75	Mclellan Rd. alignment, Tempe Canal at Alma School Rd. to the Salt River	1969
Apache Junction FRS and Floodway	86	Lost Dutchman Blvd. and Idaho Rd.	1988
Arizona Canal Diversion Channel	47	Arizona Canal, 37th Street to New River	1994
Avondale Landfill Excavation	28	Dysart Rd. and Buckeye Rd.	1986
Baseline Rd. Storm Drain	55	Baseline Rd., 7th Ave. to 43rd Ave.	2002
Beardsley Rd. Drainage System (7th Ave. to 23rd Ave.)	32	Beardsley Rd., 7th Ave. to 23rd Ave.	1995
Bethany Home Outfall Channel (Phase I)	37	Bethany Home Rd., SR-101L to New River	2000
Bethany Home Outfall Channel (Phases IIA, IIB and IIC)	38	Bethany Home Rd., SR-101L to 83rd Ave.; Grand Canal, Bethany Home Rd. to 67th Ave.	2008
Broadway Rd. Collector Channel (Broadway Rd. to EMF)	88	Approximately 1/2 mi. east of Higley Rd., Broadway Rd south for 1/3 mi. to EMF	1998
Buckeye FRS No. 1	7	I-10, 331st Ave. to 257th Ave.	1975
Buckeye FRS No. 2	8	I-10, 254th Ave. to 237th Ave.	1975
Buckeye FRS No. 3	9	I-10, 235th Ave. to 215th Ave.	1975
Bullard Wash (Phase 1)	19	Bullard Wash, Lower Buckeye Rd. alignment to Gila River	2001
Bulldog Floodway	84	Apache Junction FRS to Signal Butte FRS	1988
Cactus Rd. Flood Control System	60	Cactus Rd., Scottsdale Rd. to 64th St.; 68th St., Cactus Rd. to Mescal Park	1991
Cactus Rd. Storm Drain (67th Ave. to SR-101L)	33	Cactus Rd., 67th Ave. to Agua Fria Freeway (SR-101L)	1998
Camelback Ranch Levee	28	Agua Fria River and Camelback Rd.	1999
Camelback Side Drain Extension	67	Camelback Rd., 64th St. to 68th St; Lafayette Blvd., 64th St. to 68th St.	1986
Camelback Road Storm Drain	107	West Camelback Road from 59th Ave. to 75th Ave.	2012
Carefree Town Center Drainage	103	Area bounded by Sundance Tr. / Tom Darl. Dr. (NW), Bloody Bas. Rd. / Tranquil Tr. (SE)	2002
Casandro Wash Dam	1	North of US-60, between Mariposa Dr. alignment and Los Altos Dr. alignment	1996
Casandro Wash Outlet	1	Jackson St., Navajo St. to Mohave St.; Mohave St., Jackson St. to Casandro Wash	1996
Cave Buttes Dam	42	16th St. alignment and Happy Valley Rd. alignment	1980
Cave Buttes Dam Dike No. 1	42	18th St. alignment and Happy Valley Rd. alignment	1980
Cave Buttes Dam Dike No. 2	42	32nd St. alignment , 1/2 mi. north of Happy Valley Rd. alignment	1980
Cave Buttes Dam Dike No. 3	42	9th St. alignment and Dixileta Dr. alignment	1980
Cave Creek Channelization	46	Deer Valley Rd. to Arizona Canal	1991
Cave Creek Dam	41	16th St. alignment and Jomax Rd. alignment	1923
Centennial Levee	4	South of I-10, T2N/R9W, T2N/R10W	1985
Central Arizona Project Detention Basin No. 1	91	Approximately Sossaman Rd. alignment and approximately Mclellan Rd. alignment	2001
Central Arizona Project Detention Basin No. 2	91	93rd St. and University Dr.	2001
Central Arizona Project Detention Basin No. 3	91	Approximately 96th St. and University Dr.	2001
Central Arizona Project Detention Basin No. 4	91	Crismon Rd. and Apache Tr.	2001
Central Arizona Project Detention Basin No. 5	91	Northeast corner of Cheshire St. and Southern Ave.	2001
Central Chandler Area Drainage System	78	Area bounded by Ray Rd. (N), Pecos Rd. (S), SR-101L (W), Arizona Ave. (E)	2005
City of Phoenix Dam No. 7 Rehabilitation	45	Phoenix North Mountain Preserve, approximately 2nd St. and Aster Dr.	2009
Cloud Road and Sossaman Road Basin and Outlet	109	SE corner of Cloud Rd. and Sossamna Rd.; outlets along Sossman Rd. to Sonoqui Wash	2011
Colter Channel	59	Between Camelback Rd. and Missouri Ave., Litchfield Rd. to Agua Fria River	1995
Doubletree Ranch Road System	59	Doubletree Ranch Rd., Tatum Blvd to Indian Bend Wash at 58th St. alignment	2004
Downtwon Phoenix Drainage System	123	Area bounded by Fillmore St. (N), Buckeye Rd. (S), 19th Ave. (W), & Central Ave. (E)	2015
Dreamy Draw Dam	57	SR-51 and Northern Ave.	1973
Dysart Drain	17	Between Olive Ave. and Glendale Ave., Reems Rd.to Agua Fria River	1996
East Maricopa Floodway	90	Between Val Vista Dr. and Sossaman Rd., Brown Rd. to GRIC to the Gila River	1989
El Mirage Drain	10	El Mirage Rd., from Deer Valley Rd. to a point 1 1/4 mi. south, to Agua Fria River	1990
Elliot Rd. Basin and Channel	95	Approx. Elliot Rd., approx. Signal Butte Rd. to SR-202L; Crismon Rd. 0.5 mi. north	2007
Ellsworth Rd. Channel at Phoenix-Mesa Gateway Airport	99	North and East boundaries of Phoenix-Mesa Gateway Airport	2008
Elm Ln. Drainage Mitigation	104	Area bounded by 4th St. (Avondale) / Lower Buckeye Rd. / MC-85	2010
Gila / Salt River Clearing (Gillespie Dam to 91st Ave.)*	NA	Gila / Salt River, Gillespie Dam to 107th Ave.	1985
Gila Drain Storm Drain	73	Rural Rd., 1/2 mi. south of Guadalupe Rd. to 1/2 mi. south of Warner Rd. (Hanger Park)	1988
Gilbert Crossroads Park Basin	94	Greenfield Rd. and Ray Rd.	1992
Golden Eagle Park Dam	80	Golden Eagle Blvd. and Palisades Blvd.	2002
Greenway Parkway Channel (9th St. to Cave Creek Rd.)	44	Greenway Parkway, 9th St. to Cave Creek Rd.	2002
Guadalupe Box and Channel	93	Guadalupe Rd., Sossaman Rd. to the EMF at Power Rd.	1989
Guadalupe Drainage Improvement Project	70	Town of Guadalupe (Various Basins)	2003

Project	Map ID	Location	Year
Guadalupe FRS	71	West side of I-10, between Guadalupe Rd. and Baseline Rd.	1975
Harquahala Floodway	6	I-10, T2N/R9W, T3N/R9W, T3N/R10W	1982
Harquahala FRS	6	I-10, T2N/R9W, T3N/R9W, T3N/R10W	1982
Hawes Rd. Channel (Emelita Ave. to Main St.)	89	Hawes Rd., Apache Tr. (Main St.) To Emelita Ave. (1/2 mi. north of Southern Ave.)	2004
Hermosa Vista Dr. / Hawes Rd. Storm Drain and Basin	82	Area bounded by McDowell Rd. (N), Hermosa Vista Dr. (S), Spook Hill FRS (W), 90th St. (E)	2009
Holly Acres Levee and Bank Stabilization	40	Gila River North Bank, El Mirage Rd. to 113th Ave.	1984
Indian Bend Wash	67	Between Hayden Rd. and Scottsdale Rd., Indian Bend Rd. to Salt River at SR-202L	1985
Indian School Rd. Drain (107th Ave. to Agua Fria)	39	Indian School Rd., 107th Ave. to Agua Fria River	1989
Lafayette Interceptor Drain & Outlet	117	Lafayette Blvd. from Arcadia Dr.to 44th St., and north from Lafayette Blvd. to Colter St.	2014
Laveen Area Conveyance Channel	114	Area from 43rd Avenue to the Salt River between Southern Avenue and Baseline Road	2009
Loop 303 Outfall Channel	121	West of Cotton Ln., extending 4-1/2 miles from approx. Van Buren St. south to the Gila River	2015
Lower El Mirage Wash Basin	119	SW corner of El Mirage Road and Cactus Road.	2014
Maryvale Stadium West Inlet Channel	51	Grand Canal, between Indian School Rd. and Osborn Rd., 57th Ave. to 51st Ave.	2001
McDowell Rd. Storm Drain and Basin	81	McDowell Rd., Hawes Rd. to Sossaman Rd. alignment	2010
McMicken Dam	10	Area bounded by Grand Ave. (N), Peoria Ave. (S), 165th Ave. (E), 199th Ave. (W)	1956
McMicken Dam Outlet Channel	10	Extends 5.5 mi. northeast of northeast end of McMicken Dam	1956
New River Channelization (Bethany Home Rd. to Skunk Creek)	26	New River, Bethany Home Rd. to Olive Ave.	1996
New River Improvements (Grand Ave. to Skunk Creek)	26	New River, Grand Ave. to Skunk Creek, including Paradise Shores (1/2 mile south of Bell Rd.)	2009
New River Dam	20	Alignment of 79th Ave. and approximately Pinnacle Vista Rd.	1985
New River Dam Dike No. 1	20	Lake Pleasant Rd. and Dixileta Dr. Alignment	1985
Northern and Orangewood Storm Drain	36	Between Butler Dr. and Glendale Ave., 63rd Ave. to Agua Fria River	2001
Northern Ave. Bridge over New River	26	Northern Ave. and New River	1992
Northern Ave. Storm Drain (47th Ave. to 63rd Ave.)	105	Northern Ave., 47th Ave. to 63rd Ave.	2011
Northern Parkway Channel	120	North side of new Northern Parkway alignment from SR-303L to Dysart Rd.	2014
Oak St. Storm Drain (58th St. to Indian Bend Wash)	69	Oak Street, 58th St. to Indian Bend Wash	2000
Old Cross Cut Canal	64	48th St., Arizona Canal to McDowell Rd.	1991
Old Cross Cut Canal Extension	64	Extension from the Arizona Canal to Indian School Rd.	2011
Olive Ave. Storm Drain (51st Ave. to 91st Ave.)	35	Olive Ave., 51st Ave. to 91st Ave.	1995
Osborn Rd. Storm Drain	68	Between Osborn Rd. and Thomas Rd., 60th St. to Ind. Bend Wash at 76th St. and Earll Dr.	2001
Paradise Valley Detention Basin No. 4	43	Paradise Valley Community College (Component of Upper E. Fork Cave Creek)	1991
Pass Mountain Diversion Channel	85	McKellips Rd., Crismon Rd. to Signal Butte Rd., south to behind Signal Butte FRS	1987
Perryville Bank Stabilization	14	North bank of Gila River, between Perryville Rd. and Cotton Ln.	1984
Pinnacle Peak Channel & Basin & Rose Garden Ln. Basin	110	Pinnacle Peak Rd. - 89th to 99th Ave.; Rose Garden Ln. from Lake Pleasant Rd. to Agua Fria	2012
Powerline Floodway	96	Powerline FRS, southwest to Ray Rd. alignment at GM, to EMF at Sossaman Rd.	1968
Powerline FRS	96	US-60 and Guadalupe Rd. alignment	1967
Price Road Drain	74	SR-101L (Price), Salt River to 1/2 mi. south of Guadalupe Rd. (Carriage Lane Park)	1993
Queen Creek Channel (Hawes to Power)	101	Queen Creek, Hawes Rd. to Power Rd.	2006
Queen Creek Channel (Recker to Higley)	101	Queen Creek, Recker Rd. to Higley Rd.	2009
Queen Creek Road Basin	79	McQueen Rd. and Queen Creek Rd.	2009
Reems Road Channel and Basin	16	Reems Rd. and Olive Ave.	2009
Rittenhouse Basin	100	NW corner of Rittenhouse Rd. and Power Rd.	2010
Rittenhouse FRS	98	US-60, Queen Creek Rd. alignment	1969
Rittenhouse Road Channel	100	Rittenhouse Rd., Queen Creek Rd. to the EMF at Pecos Rd.	1997
Roosevelt Irrigation District Canal Overchute	27	Litchfield Rd. and RID Canal	1998
Saddleback Diversion Channel	5	South of I-10, T2N/R8W, T1N/R8W	1981
Saddleback FRS	5	South of I-10, T2N/R8W, T1N/R8W	1981
Salt River Channel (McClintock Dr. to Price Rd.)	66	North bank of Salt River, McClintock Dr. to Price Rd.	1998
Salt River Channel (Price Rd. to McKellips Rd.)	66	Salt River, Price Rd. to McKellips Rd.	1998
Salt River Channel (SR-143 to McClintock Dr.)	66	Salt River, SR-143 to McClintock Dr.	1991
Salt River Low Flow Ch. (19th Ave. to I-10) (Phx. Rio Salado)	62	Salt River, 19th Ave. to I-10 at approximately 30th St. alignment	2002
Scatter Wash Channel and Basin at I-17	30	Scatter Wash at I-17	2010
Scatter Wash Channel (43rd Ave. to 35th Ave.)	31	Scatter Wash, 43rd Ave. to 35th Ave.	1995
Scottsdale Rd. Drainage (Thunderbird to Doubletree Ranch)	61	Approximately Scottsdale Rd., Thunderbird Rd. to Doubletree Ranch Rd.	2008
Signal Butte Floodway	84	Between Mclellan Rd. and Adobe Rd., Signal Butte FRS to CAP at Ellsworth Rd.	1984
Signal Butte FRS	84	Southwest of Signal Butte Rd. and McKellips Rd.	1987
Siphon Draw Drainage Improvements	106	Meridian Rd., 1/4 mi. south of Baseline Rd. to Elliot Rd., basin east of Meridian Rd.	2010
Skunk Creek / ACDC Low Flow Channel	23	Skunk Creek, New River to 75th Ave.; ACDC, 73rd Ave. to Skunk Creek	2007
Skunk Creek Channel and Levee	22	Skunk Creek, approximately Jomax Rd. alignment to Central Arizona Project	1983
Skunk Creek Channel Imp. (75th Ave. to 51st Ave.)	22	Skunk Creek, 75th Ave. to 51st Ave.	2000
Skunk Creek Sports Complex Bank Protection	22	Skunk Creek, New River to 75th Ave.	1999
Sonoqui Wash Channelization (Higley to Chandler Heights)	102	Sonoqui Wash, Higley Rd.and Ocotillo Rd. to Chandler Heights Rd. and Sossaman Rd.	2008
Sonoqui Wash Channelization (Chandler Heights to Ellsworth)	113	Sonoqui Wash, Chandler Heights Rd. to Riggs Rd., and east from Hawes Rd. to Ellsworth Rd.	2013
Sossaman Channel and Basin	92	Sossaman Rd., Southern Ave. to Guadalupe Rd. (Basin at US-60)	1977
Southeast Phoenix Regional Drainage System	76	SR-202L and 48th St.	2002
Southeast Valley Regional Drainage System	77	SR-202L to Pecos Rd. 1/2 mi. west of Kyrene Rd., to I-10, south to the Gila Drain floodway	2002
Spook Hill FRS and Floodway	83	SR-202L, Power Rd. to 1/4 mi. south of Brown Rd.; CAP, SR-202L, north 1 1/2 mi.	1979
Spook Hill FRS Rehabilitation	83	SR-202L, Power Rd. to 1/4 mi. south of Brown Rd.; CAP, SR-202L, north 1 1/2 mi.	2008
Sun City Drains	15	Sun City, T4N/R1W	1990
Sun City West Drains	15	Sun City West, T3N/R1E	1990
Sunnycove Dam	3	Kellis Rd. alignment and Turtleback Ln. alignment	1976
Sunset / Sunnycove Pipeline	2	Sunnycove Dam, to a point 1 mi. northeast	1976
Sunset Dam	2	South of US-60, between Cucuracha St. alignment and Whipple Ct. alignment	1976
Tatum Wash Detention Basin	58	45th St. and Shea Blvd.	1998
Tres Rios Levees	115	North bank on the Salt & Gila Rivers from 91st Ave. to the Agua Fria River.	2011
University Drive Basin	87	64th St. and University Dr.	1992
Upper Camelback Wash Drainage Improvements	122	Two channel branches from 92nd and 96th streets from Shea Boulevard to Sweetwater Ave.	2015
Upper East Fork Cave Creek	43	Area bounded by SR-101L (N), Bell Rd. (S), 9th St. (W), 32nd St. (E); 4 basins & PVCC	1996
Vineyard FRS	97	US-60 and Ray Rd. alignment	1968
White Tanks FRS No. 3	12	Jackrabbit Tr. alignment and Glendale Ave. alignment	1954
White Tanks FRS No. 3 North Inlet Channel	11	Beardsley Canal, Olive Ave. to White Tanks FRS No. 3	2008
White Tanks FRS No. 3 Outfall Channel	112	Jackrabbit Trail (195th Avenue), from McDowell Road to Missouri Avenue.	2013
White Tanks FRS No.4	13	Jackrabbit Trail and Van Buren Street.	1954
Wickenburg Downtown Flooding Hazard Mitigation	116	Sol's Wash, from the Highway 93 Interim Bypass Bridge to the Tegner St. Bridge	2009

*Initially cleared; conditions subsequently reversed.

Appendix B
Projects Not Included in the 5-Year Capital Improvement Program Included in the District 15-Year Plan

Recommended by Prioritization Procedures Through Fiscal Year 2016

Cost Estimates Per Original Submittals

Year	Description	Sponsor	Est. District Cost	Est. Total Cost
2000	Meridian North and South Channels	Mesa	$1,800,000	$2,400,000
2001	Waddell Rd. Drainage Improvements	Surprise	$255,600	$771,984
2002	Bethany Home Rd. Storm Drain (59th-51st Ave.)	Glendale	$1,575,000	$3,150,000
2002	Sand Tank Wash Flood Control Improvements	Gila Bend	$10,534,000	$11,707,000
2002	South Gila Bend Drainage Improvements	Gila Bend	$283,000	$283,000
2007	Skunk Creek Levees at CAP	District	$2,670,000	$8,900,000
2007	Skunk Creek Channel at Pinnacle Peak Rd. and 35th Ave.	Phoenix	$4,250,000	$8,500,000
2008	Agua Fria Boulevard Scour Protection Grade Control Structure	MCDOT	$1,000,000	$2,000,000
2008	AT&SF Channel	MCDOT	$3,189,000	$6,377,000
2008	Pecos North and South Detention Basins	Mesa	$11,625,000	$15,500,000
2008	Pecos Rd. Channel	Mesa	$10,500,000	$14,000,000
2009	20th Ave. and Turney Ave. Detention Basin	Phoenix	$6,500,000	$13,000,000
2010	Jefferson St. and I-17 Storm Drain	Phoenix	$1,550,000	$3,100,000
2010	Happy Valley Channel	Surprise	$1,130,000	$2,260,000
2011	SR-85/Oglesby Outfall Channel	ADOT/FCD	$7,000,000	$14,000,000
2012	Skyline Fan Basin & Outlet	Buckeye	$3,600,000	$7,200,000
2012	Highline Western Canal Storm Drain	Tempe	$1,990,000	$3,980,000
2012	Rooks Drainage System	Buckeye	$12,740,000	$45,500,000
2012	Oglesby Channel	Buckeye	$10,472,000	$37,400,000
2012	Palo Verde Drainage System	Buckeye	$26,236,000	$93,700,000
2013	McCormick Stillman Railroad Park/Lincoln Drive Drainage Impr.	Scottsdale	$4,022,040	$6,703,400
2014	27th Avenue and Dobbins Road Detention Basin	Phoenix	$3,350,000	$6,700,000
2014	South Phoenix/Laveen Drainage Improvements	Phoenix	$5,650,000	$11,300,000
	Total		$131,921,640	$318,432,384

Total Count: 23

Appendix C
Flood Control District Capital Improvement Program
Projected Intergovernmental Agreement Revenue

Fiscal Year 2016 - Fiscal Year 2020

PCN	Project	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year
201.02.31	White Tanks FRS No.4 Rehabilitation	$6,625,000	$7,800,000	$0	$0	$0	$14,425,000
207.01.31	Buckeye FRS No.1 Rehabilitation	$16,375,000	$6,175,000	$0	$0	$0	$22,550,000
211.05.30	Watson Drainage System	$325,000	$325,000	$0	$0	$0	$650,000
310.01.30	Powerline Repl./Vineyard & Rittenhouse FRS Rehab	$11,350,000	$17,550,000	$20,800,000	$3,900,000	$0	$53,600,000
450.07.31	115th Ave./Union Hills Drive Drainage Improvements	$1,610,000	$0	$850,000	$850,000	$0	$3,310,000
470.14.31	Loop 303 Outfall Channel	$100,000	$0	$0	$0	$0	$100,000
480.04.32	Sonoqui Wash Channelization (Chandler Heights to Crismon)	$188,000	$188,000	$0	$0	$0	$376,000
670.01.30	Ashbrook Wash Channelization Improvements	$900,000	$0	$0	$0	$0	$900,000
	Projected Reimbursement Revenue Total	$37,473,000	$32,038,000	$21,650,000	$4,750,000	$0	$95,911,000

Appendix D
Completed Drainage Studies and Master Plans
Through Fiscal Year 2015

Title	Type*	Year
Adobe Dam / Desert Hills	ADMP	2003
Agua Fria River	WCMP	2001
Aguila	ADMP	2004
Apache Wash	DMP	1990
Arizona Canal Diversion Channel	ADMP	1995
Buckeye	ADMP	2009
Buckeye / Sun Valley	ADMS	2007
Carefree	DMP	2004
Cave Creek	DMP	2008
Durango	ADMP	2002
East Maricopa County	ADMS	1987
East Maricopa Floodway Capacity Mitigation	Study	2000
East Mesa	ADMP	1998
East Mesa	ADMPU	2014
El Rio	ADMP/WCMP	2006
Fountain Hills	ADMP	1997
Gila Bend	ADMP	2003
Gila Bend	ADMPU	2015
Gilbert-Chandler	ADMS	1988
Gilbert-Chandler Update	ADMS	1994
Glendale Update	ADMP/SWMP	2011
Glendale / Peoria	ADMP	1987
Glendale / Peoria Update	ADMP	2002
Granite Reef Wash	DMP	2002
Higley	ADMP	2000
Hohokam	ADMP	2014
Laveen	ADMS	1994
Laveen / South Phoenix	ADMP	2001
Laveen / South Phoenix	ADMPU	2013
Loop 303 Corridor / White Tanks Update	ADMP	2002
Lower Hassayampa	WCMP	2007
Maryvale	ADMS	1997
Metro Phoenix	ADMP	2008
Middle New River	WCMP	2001
North Peoria	ADMP	2002
Paradise Valley, Scottsdale, Phoenix	Study	1978
Peoaria	ADMP	2014
Pinnacle Peak South	ADMS	2013
Queen Creek	ADMS	1991
Queen Creek / Sonoqui Wash	HMP	2000
Rainbow Valley	ADMS/P	2011
Rio Verde	ADMP	2006
Salt River (Dobson Rd. to 24th St.)	HMP	2010
San Tan West	ADMS	2013
Scottsdale Road Corridor (Paradise Valley, Scottsdale, Phoenix)	DMP	2002
Scottsdale, Tempe, Phoenix	Study	1997
Skunk Creek	WCMP	2001
Southeast Mesa	ADMS	1996
Spook Hill	ADMP	2002
Sun Valley	ADMP	2006
Upper Cave Creek / Apache Wash	WCMP	2001
Upper East Fork Cave Creek	ADMP	1987
Upper New River	ADMP	2008
White Tanks / Agua Fria	ADMS	1992
Wickenburg	ADMS	1992
Wickenburg	ADMP	2015
Wittmann	ADMP	2009
Wittmann	ADMS	1989
Total Count: 58		

* Acronym list:
ADMP: Area Drainage Master Plan
ADMPU: Area Drainage Master Plan Update
ADMS: Area Drainage Master Study
DMP: Drainage Master Plan
HMP: Hydraulic Master Plan
SWMP: Stormwater Master Plan
WCMP: Watercourse Master Plan

Completed Capital Projects
Through Fiscal Year 2015 (By Map ID)

Map ID	Project	Location	Year
1	Casandro Wash Dam	North of US-60, between Mariposa Dr. alignment and Los Altos Dr. alignment	1996
1	Casandro Wash Outlet	Jackson St., Navajo St. to Mohave St.; Mohave St., Jackson St. to Casandro Wash	1996
2	Sunset / Sunnycove Pipeline	Sunnycove Dam, to a point 1 mi. northeast	1976
2	Sunset Dam	South of US-60, between Cucuracha St. alignment and Whipple Ct. alignment	1976
3	Sunnycove Dam	Kellis Rd. alignment and Turtleback Ln. alignment	1976
4	Centennial Levee	South of I-10, T2N/R9W, T2N/R10W	1985
5	Saddleback Diversion Channel	South of I-10, T2N/R8W, T1N/R8W	1981
5	Saddleback FRS	South of I-10, T2N/R8W, T1N/R8W	1981
6	Harquahala Floodway	I-10, T2N/R9W, T3N/R9W, T3N/R10W	1982
6	Harquahala FRS	I-10, T2N/R9W, T3N/R9W, T3N/R10W	1982
7	Buckeye FRS No. 1	I-10, 331st Ave. to 257th Ave.	1975
8	Buckeye FRS No. 2	I-10, 254th Ave. to 237th Ave.	1975
9	Buckeye FRS No. 3	I-10, 235th Ave. to 215th Ave.	1975
10	El Mirage Drain	El Mirage Rd., from Deer Valley Rd. to a point 1 1/4 mi. south, to Agua Fria River	1990
10	McMicken Dam	Area bounded by Grand Ave. (N), Peoria Ave. (S), 165th Ave. (E), 199th Ave. (W)	1956
10	McMicken Dam Outlet Channel	Extends 5.5 mi. northeast of northeast end of McMicken Dam	1956
11	White Tanks FRS No. 3 North Inlet Channel	Beardsley Canal, Olive Ave. to White Tanks FRS No. 3	2008
12	White Tanks FRS No. 3	Jackrabbit Tr. alignment and Glendale Ave. alignment	1954
13	White Tanks FRS No. 4	Jackrabbit Tr. and Van Buren St.	1954
14	Perryville Bank Stabilization	North bank of Gila River, between Perryville Rd. and Cotton Ln.	1984
15	Sun City Drains	Sun City, T4N/R1W	1990
15	Sun City West Drains	Sun City West, T3N/R1E	1990
16	Reems Road Channel and Basin	Reems Rd. and Olive Ave.	2009
17	Dysart Drain	Between Olive Ave. and Glendale Ave., Reems Rd.to Agua Fria River	1996
18	Colter Channel	Between Camelback Rd. and Missouri Ave., Litchfield Rd. to Agua Fria River	1995
19	Bullard Wash (Phase 1)	Bullard Wash, Lower Buckeye Rd. alignment to Gila River	2001
20	New River Dam	Alignment of 79th Ave. and approximately Pinnacle Vista Rd.	1985
20	New River Dam Dike No. 1	Lake Pleasant Rd. and Dixileta Dr. Alignment	1985
21	83rd Ave. and Pinnacle Peak Rd. Drainage Improvements	Area bounded by Calley Lejos (N), Willisams Rd. (S), 91st Ave. (W), 83rd Ave. (E)	2008
22	Skunk Creek Channel and Levee	Skunk Creek, approximately Jomax Rd. alignment to Central Arizona Project	1983
22	Skunk Creek Channel Imp. (75th Ave. to 51st Ave.)	Skunk Creek, 75th Ave. to 51st Ave.	2000
22	Skunk Creek Sports Complex Bank Protection	Skunk Creek, New River to 75th Ave.	1999
23	Skunk Creek / ACDC Low Flow Channel	Skunk Creek, New River to 75th Ave.; ACDC, 73rd Ave. to Skunk Creek	2007
24	51st Ave. Storm Drain (Bell Rd. to Thunderbird Rd.)	51st Ave., Bell Rd. to Thunderbird Rd.	1991
24	59th Ave. Storm Drain (Bell Rd. to ACDC)	59th Ave., Bell Rd. to ACDC	1991
24	67th Ave. Storm Drain (Bell Rd. to ACDC)	67th Ave., Bell Rd. to ACDC	1990
24	91st Ave. and Bell Rd. Drainage	91st Ave., Bell Rd. to Greenway Rd.; Greenway Rd., 91st Ave. to New River	1991
25	83rd Ave. Grade Control Structure (Skunk Creek)	83rd Ave. and Skunk Creek	2003
26	New River Channelization (Bethany Home Rd. to Skunk Creek)	New River, Bethany Home Rd. to Olive Ave.	1996
26	New River Improvements (Grand Ave. to Skunk Creek)	New River, Grand Ave. to Skunk Creek, including Paradise Shores (1/2 mile south of Bell Rd.)	2009
26	Northern Ave. Bridge over New River	Northern Ave. and New River	1992
27	Roosevelt Irrigation District Canal Overchute	Litchfield Rd. and RID Canal	1998
28	Agua Fria Channelization	Agua Fria River, Camelback Rd. to 1/4 mi. south of Lower Buckeye Rd.	1988
28	Avondale Landfill Excavation	Dysart Rd. and Buckeye Rd.	1986
28	Camelback Ranch Levee	Agua Fria River and Camelback Rd.	1999
29	Adobe Dam	Skunk Creek at Deer Valley Rd. alignment and 39th Ave. alignment	1982
30	Scatter Wash Channel and Basin at I-17	Scatter Wash at I-17	2010
31	Scatter Wash Channel (43rd Ave. to 35th Ave.)	Scatter Wash, 43rd Ave. to 35th Ave.	1995
32	Beardsley Rd. Drainage System (7th Ave. to 23rd Ave.)	Beardsley Rd., 7th Ave. to 23rd Ave.	1995
33	Cactus Rd. Storm Drain (67th Ave. to SR-101L)	Cactus Rd., 67th Ave. to Agua Fria Freeway (SR-101L)	1998
34	67th Ave. Storm Drain (Olive Ave. to ACDC)	67th Ave., Olive Ave. to ACDC	2009
35	Olive Ave. Storm Drain (51st Ave. to 91st Ave.)	Olive Ave., 51st Ave. to 91st Ave.	1995
36	Northern and Orangewood Storm Drain	Between Butler Dr. and Glendale Ave., 63rd Ave. to Agua Fria River	2001
37	Bethany Home Outfall Channel (Phase I)	Bethany Home Rd., SR-101L to New River	2000
38	Bethany Home Outfall Channel (Phases IIA, IIB and IIC)	Bethany Home Rd., SR-101L to 83rd Ave.; Grand Canal, Bethany Home Rd. to 67th Ave.	2008
39	Indian School Rd. Drain (107th Ave. to Agua Fria)	Indian School Rd., 107th Ave. to Agua Fria River	1989
40	Holly Acres Levee and Bank Stabilization	Gila River North Bank, El Mirage Rd. to 113th Ave.	1984
41	Cave Creek Dam	16th St. alignment and Jomax Rd. alignment	1923
42	Cave Buttes Dam	16th St. alignment and Happy Valley Rd. alignment	1980
42	Cave Buttes Dam Dike No. 1	18th St. alignment and Happy Valley Rd. alignment	1980
42	Cave Buttes Dam Dike No. 2	32nd St. alignment , 1/2 mi. north of Happy Valley Rd. alignment	1980
42	Cave Buttes Dam Dike No. 3	9th St. alignment and Dixileta Dr. alignment	1980
43	Paradise Valley Detention Basin No. 4	Paradise Valley Community College (Component of Upper E. Fork Cave Creek)	1991
43	Upper East Fork Cave Creek	Area bounded by SR-101L (N), Bell Rd. (S), 9th St. (W), 32nd St. (E); 4 basins & PVCC	1996
44	Greenway Parkway Channel (9th St. to Cave Creek Rd.)	Greenway Parkway, 9th St. to Cave Creek Rd.	2002
45	City of Phoenix Dam No. 7 Rehabilitation	Phoenix North Mountain Preserve, approximately 2nd St. and Aster Dr.	2009
46	Cave Creek Channelization	Deer Valley Rd. to Arizona Canal	1991
47	Arizona Canal Diversion Channel	Arizona Canal, 37th Street to New River	1994
48	9th Ave. Storm Drain (Peoria Ave. to ACDC)	9th Ave., Peoria Ave. to ACDC	2008
49	10th St. Wash Detention Basin No. 1	12th St. and Peoria Ave.	1996
49	10th St. Wash Detention Basin No. 2	11th St. and Alice Ave.	1997
50	10th St. Wash Improvements (Alice to ACDC)	10th St., Alice Ave to ACDC at Griswold Rd. alignment	2008
51	Maryvale Stadium West Inlet Channel	Grand Canal, between Indian School Rd. and Osborn Rd., 57th Ave. to 51st Ave.	2001
52	26th Ave. and Verde Ln. Basin	Verde Ln. alignment; 26th Dr. to I-17 Frontage Rd.	2007
53	24th Ave. and Camelback Rd. Basin	24th Ave. and Camelback Rd.	2008
54	43rd Ave. and Southern Ave. Detention Basin	43rd Ave. and Southern Ave.	2005
54	43rd Ave. Storm Drain	43rd Ave., Broadway Rd. to Baseline Rd.	2000
55	Baseline Rd. Storm Drain	Baseline Rd., 7th Ave. to 43rd Ave.	2002
56	35th Ave. and Dobbins Rd. Basin and Storm Drain	35th Ave. and Dobbins Rd.	2002
57	Dreamy Draw Dam	SR-51 and Northern Ave.	1973
58	Tatum Wash Detention Basin	45th St. and Shea Blvd.	1998
59	Doubletree Ranch Road System	Doubletree Ranch Rd., Tatum Blvd to Indian Bend Wash at 58th St. alignment	2004
60	Cactus Rd. Flood Control System	Cactus Rd., Scottsdale Rd. to 64th St.; 68th St., Cactus Rd. to Mescal Park	1991

Map ID	Project	Location	Year
59	Doubletree Ranch Road System	Doubletree Ranch Rd., Tatum Blvd to Indian Bend Wash at 58th St. alignment	2004
60	Cactus Rd. Flood Control System	Cactus Rd., Scottsdale Rd. to 64th St.; 68th St., Cactus Rd. to Mescal Park	1991
61	Scottsdale Rd. Drainage (Thunderbird to Doubletree Ranch)	Approximately Scottsdale Rd., Thunderbird Rd. to Doubletree Ranch Rd.	2008
62	Salt River Low Flow Ch. (19th Ave. to I-10) (Phx. Rio Salado)	Salt River, 19th Ave. to I-10 at approximately 30th St. alignment	2002
63	48th St. Drain	San Francisco Canal, 48th St. to University Dr.	1981
64	Old Cross Cut Canal	48th St., Arizona Canal to McDowell Rd.	1991
64	Old Cross Cut Canal Extension	Extension from the Arizona Canal to Indian School Rd.	2011
65	48th St. Storm Drain	48th St., Baseline Rd. to 48th St. Drain	1988
66	Salt River Channel (McClintock Dr. to Price Rd.)	North bank of Salt River, McClintock Dr. to Price Rd.	1998
66	Salt River Channel (Price Rd. to McKellips Rd.)	Salt River, Price Rd. to McKellips Rd.	1998
66	Salt River Channel (SR-143 to McClintock Dr.)	Salt River, SR-143 to McClintock Dr.	1991
67	Camelback Side Drain Extension	Camelback Rd., 64th St. to 68th St; Lafayette Blvd., 64th St. to 68th St.	1986
67	Indian Bend Wash	Between Hayden Rd. and Scottsdale Rd., Indian Bend Rd. to Salt River at SR-202L	1985
68	Osborn Rd. Storm Drain	Between Osborn Rd. and Thomas Rd., 60th St. to Ind. Bend Wash at 76th St. and Earll Dr.	2001
69	Oak St. Storm Drain (58th St. to Indian Bend Wash)	Oak Street, 58th St. to Indian Bend Wash	2000
70	Guadalupe Drainage Improvement Project	Town of Guadalupe (Various Basins)	2003
71	Guadalupe FRS	West side of I-10, between Guadalupe Rd. and Baseline Rd.	1975
72	ADOT Pit and Diversion Channel	I-10, Elliot Rd. to 1/4 mi. south of Warner Rd.; I-10 and 1/4 mi. south of Warner Rd.	1987
73	Gila Drain Storm Drain	Rural Rd., 1/2 mi. south of Guadalupe Rd. to 1/2 mi. south of Warner Rd. (Hanger Park)	1988
74	Price Road Drain	SR-101L (Price), Salt River to 1/2 mi. south of Guadalupe Rd. (Carriage Lane Park)	1993
75	Alma School Drain	Mclellan Rd. alignment, Tempe Canal at Alma School Rd. to the Salt River	1969
76	Southeast Phoenix Regional Drainage System	SR-202L and 48th St.	2002
77	Southeast Valley Regional Drainage System	SR-202L to Pecos Rd. 1/2 mi. west of Kyrene Rd., to I-10, south to the Gila Drain floodway	2002
78	Central Chandler Area Drainage System	Area bounded by Ray Rd. (N), Pecos Rd. (S), SR-101L (W), Arizona Ave. (E)	2005
79	Queen Creek Road Basin	McQueen Rd. and Queen Creek Rd.	2009
80	Golden Eagle Park Dam	Golden Eagle Blvd. and Palisades Blvd.	2002
81	McDowell Rd. Storm Drain and Basin	McDowell Rd., Hawes Rd. to Sossaman Rd. alignment	2010
82	Hermosa Vista Dr. / Hawes Rd. Storm Drain and Basin	Area bounded by McDowell Rd. (N), Hermosa Vista Dr. (S), Spook Hill FRS (W), 90th St. (E)	2009
83	Spook Hill FRS and Floodway	SR-202L, Power Rd. to 1/4 mi. south of Brown Rd.; CAP, SR-202L, north 1 1/2 mi.	1979
83	Spook Hill FRS Rehabilitation	SR-202L, Power Rd. to 1/4 mi. south of Brown Rd.; CAP, SR-202L, north 1 1/2 mi.	2008
84	Bulldog Floodway	Apache Junction FRS to Signal Butte FRS	1988
84	Signal Butte Floodway	Between Mclellan Rd. and Adobe Rd., Signal Butte FRS to CAP at Ellsworth Rd.	1984
84	Signal Butte FRS	Southwest of Signal Butte Rd. and McKellips Rd.	1987
85	Pass Mountain Diversion Channel	McKellips Rd., Crismon Rd. to Signal Butte Rd., south to behind Signal Butte FRS	1987
86	Apache Junction FRS and Floodway	Lost Dutchman Blvd. and Idaho Rd.	1988
87	University Drive Basin	64th St. and University Dr.	1992
88	Broadway Rd. Collector Channel (Broadway Rd. to EMF)	Approximately 1/2 mi. east of Higley Rd., Broadway Rd south for 1/3 mi. to EMF	1998
89	Hawes Rd. Channel (Emelita Ave. to Main St.)	Hawes Rd., Apache Tr. (Main St.) To Emelita Ave. (1/2 mi. north of Southern Ave.)	2004
90	Adobe St. Structures over EMF	Adobe St. 1/2 mi. east of Greenfield Rd.	1990
90	East Maricopa Floodway	Between Val Vista Dr. and Sossaman Rd., Brown Rd. to GRIC to the Gila River	1989
91	Central Arizona Project Detention Basin No. 1	Approximately Sossaman Rd. alignment and approximately Mclellan Rd. alignment	2001
91	Central Arizona Project Detention Basin No. 2	93rd St. and University Dr.	2001
91	Central Arizona Project Detention Basin No. 3	Approximately 96th St. and University Dr.	2001
91	Central Arizona Project Detention Basin No. 4	Crismon Rd. and Apache Tr.	2001
91	Central Arizona Project Detention Basin No. 5	Northeast corner of Cheshire St. and Southern Ave.	2001
92	Sossaman Channel and Basin	Sossaman Rd., Southern Ave. to Guadalupe Rd. (Basin at US-60)	1977
93	Guadalupe Box and Channel	Guadalupe Rd., Sossaman Rd. to the EMF at Power Rd.	1989
94	Gilbert Crossroads Park Basin	Greenfield Rd. and Ray Rd.	1992
95	Elliot Rd. Basin and Channel	Approx. Elliot Rd., approx. Signal Butte Rd. to SR-202L; Crismon Rd. 0.5 mi. north	2007
96	Powerline Floodway	Powerline FRS, southwest to Ray Rd. alignment at GM, to EMF at Sossaman Rd.	1968
96	Powerline FRS	US-60 and Guadalupe Rd. alignment	1967
97	Vineyard FRS	US-60 and Ray Rd. alignment	1968
98	Rittenhouse FRS	US-60, Queen Creek Rd. alignment	1969
99	Ellsworth Rd. Channel at Phoenix-Mesa Gateway Airport	North and East boundaries of Phoenix-Mesa Gateway Airport	2008
100	Rittenhouse Road Channel	Rittenhouse Rd., Queen Creek Rd. to the EMF at Pecos Rd.	1997
100	Rittenhouse Basin	NW corner of Rittenhouse Rd. and Power Rd.	2010
101	Queen Creek Channel (Hawes to Power)	Queen Creek, Hawes Rd. to Power Rd.	2006
101	Queen Creek Channel (Recker to Higley)	Queen Creek, Recker Rd. to Higley Rd.	2009
102	Sonoqui Wash Channelization (Higley to Chandler Heights)	Sonoqui Wash, Higley Rd.and Ocotillo Rd. to Chandler Heights Rd. and Sossaman Rd.	2008
103	Carefree Town Center Drainage	Area bounded by Sundance Tr. / Tom Darl. Dr. (NW), Bloody Bas. Rd. / Tranquil Tr. (SE)	2002
104	Elm Ln. Drainage Mitigation	Area bounded by 4th St. (Avondale) / Lower Buckeye Rd. / MC-85	2010
105	Northern Ave. Storm Drain (47th Ave. to 63rd Ave.)	Northern Ave., 47th Ave. to 63rd Ave.	2011
106	Siphon Draw Drainage Improvements	Meridian Rd., 1/4 mi. south of Baseline Rd. to Elliot Rd., basin east of Meridian Rd.	2010
107	Camelback Road Storm Drain (59th Ave. to 75th Ave.)	West Camelback Road from 59th Ave. to 75th Ave.	2012
108	23rd Ave. and Roser Road Storm Drain and Basin	NE corner of 23rd Ave. and Roeser Rd.; outlets along Roeser Rd. and Broadway Rd.	2011
109	Cloud Road and Sossaman Road Basin and Outlet	SE corner of Cloud Rd. and Sossamna Rd.; outlets along Sossman Rd. to Sonoqui Wash	2011
110	Pinnacle Peak Channel & Basin & Rose Garden Ln. Basin	Pinnacle Peak Rd. - 89th to 99th Ave.; Rose Garden Ln. from Lake Pleasant Rd. to Agua Fria	2012
111	75th Ave. Storm Drain and DRCC Phase I	Area bounded by 64th Ave. and 71st Ave. from south of Van Buren Ave. to Southern Ave.	2011
112	White Tanks FRS No. 3 Outfall Channel	Jackrabbit Trail (195th Avenue), from McDowell Road to Missouri Avenue.	2013
113	Sonoqui Wash Channelization (Chandler Heights to Ellsworth)	Sonoqui Wash, Chandler Heights Rd. to Riggs Rd., and east from Hawes Rd. to Ellsworth Rd.	2013
114	Laveen Area Conveyance Channel	Area from 43rd Avenue to the Salt River between Southern Avenue and Baseline Road	2009
115	Tres Rios Levees	North bank on the Salt & Gila Rivers from 91st Ave. to the Agua Fria River.	2011
116	Wickenburg Downtown Flooding Hazard Mitigation	Sol's Wash, from the Highway 93 Interim Bypass Bridge to the Tegner St. Bridge	2009
117	Lafayette Interceptor Drain & Outlet	Lafayette Blvd. from Arcadia Dr.to 44th St., and north from Lafayette Blvd. to Colter St.☐	2014
118	43rd Avenue & Baseline Road Detention Basin	NE corner of 43rd Ave. and Baseline Road	2014
119	Lower El Mirage Wash Basin	SW corner of El Mirage Road and Cactus Road.	2014
120	Northern Parkway Channel (SR-L303 to Dysart Road)	North side of new Northern Parkway Alignment from Loop 101 Freeway to Dysart Road	2014
121	Loop 303 Outfall Channel	West of Cotton Ln., extending 4-1/2 miles from approx. Van Buren St. south to the Gila River	2015
122	Upper Camelback Wash Drainage Improvements	Two channel branches from 92nd and 96th streets from Shea Boulevard to Sweetwater Ave.	2015
123	Downtown Phoenix Storm Drain System	Area bounded by Fillmore St. (N), Buckeye Rd. (S), 19th Ave. (W), & Central Ave. (E)	2015
NA	Gila / Salt River Clearing (Gillespie Dam to 91st Ave.)*	Gila / Salt River, Gillespie Dam to 107th Ave.	1985

*Initially cleared; conditions subsequently reversed.

Completed Capital Projects Through Fiscal Year 2015

Completed Capital Project

Maricopa County

Supervisorial District

1 4

2 5

3

Wickenburg Area

Western Maricopa

Sun Valley Parkway

District 1

District 2

District 3

District 4

District 5

N