Background
Pinal County participates in the Federal Emergency Management Agency’s Community Rating System (CRS) program. CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum National Flood Insurance Program requirements. Pinal County’s participation in the CRS program requires an annual recertification of the activities that presently result in a 15% reduction in flood insurance policy premiums for properties within Special Flood Hazard Area (SFHA) of the unincorporated portion of the County. This report was prepared in accordance with the annual recertification requirements of the Community Rating System.

Floodplain Management Plan
The Pinal County Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) serves as the basis for the Pinal County Floodplain Management Plan. The primary objectives of the MJHMP are:

- To identify natural hazards and certain human-caused hazards that impact the various jurisdictions located within Pinal County
- To assess the vulnerability and risk posed by those hazards to community-wide human and structural assets
- To develop strategies for mitigation of those identified hazards
- To present future maintenance procedures for the plan and document the planning process.

The MJHMP was jointly developed by the County, municipalities and community stakeholders to reduce and/or eliminate risks associated with natural and man-made hazards. The current MJHMP was adopted by Pinal County on July 12, 2017 and approved by the Federal Emergency Management Agency (FEMA) on August 18, 2017. A copy of the approval letter from FEMA is attached to this report.

Section 5.4 of the MJHMP contains a project list that includes current and completed projects intended to mitigate local flood hazards within the unincorporated areas. An updated projects table is included as an attachment to this progress report.

Community Outreach
Pinal County routinely engages in outreach as part of the ongoing effort to educate and inform citizens about flooding and flood protection. First and foremost, Pinal County prepares and mails out an annual newsletter to residents within the Special Flood Hazard Area in advance of Arizona’s monsoon season. The newsletter provides useful information to residents regarding flood preparedness, County and Federal regulations, and permitting procedures. For 2019, the newsletter contained 12 pages of useful information and facts.

The updates from the previous newsletter include additional articles on Earth Fissures, as well as information about mapping and data available on the Pinal County website. Furthermore, an entire page of Frequently Asked Questions was also added to the document. The newsletter was mailed to residents of the unincorporated areas of Pinal County as well as those residents living within the Cities. In total, more than 3,000 newsletters were mailed out.

Pinal County also prepared mailers/letters to residences in certain parts of Pinal County for targeted outreach and messaging. In October of 2018 we mailed out 1400 letters to residents in
western Pinal County whom were affected by the after effects of Hurricane Rosa. The letter invited residents to sign up for the Pinal County Emergency Notification System (PENS). PENS is a free, voluntary service that allows you to be alerted of emergencies and important community events in their area. It enables Pinal County Emergency Management to provide you with critical information quickly and effectively in a variety of situations, such as severe weather, fires, floods, evacuations, and other emergency events.

A second round of targeted outreach was performed in May of 2019. We sent approximately 900 letters and maps to residents in Arizona City, which has a history of localized flooding problems. The letter invited residents to consider purchasing flood insurance to protect their homes and belongings. The letter also described Pinal County’s participation in the CRS program and how that results in discounts for insurance policy holders.

**Certified Floodplain Manager (CFM ®) Program**
The Association of State Floodplain Managers (ASFPM) has established a national program for professional certification of floodplain managers. The program recognizes continuing education and professional development that enhances the knowledge and performance of local, state, federal, and private-sector floodplain managers.

Pinal County currently has five employees who are Certified Floodplain Managers (CFMs ®) that have a combined total of more than 40 years in the floodplain management fields. These employees regularly speak with residents about flooding problems, flood insurance, and floodplain permitting. Staff also makes field visits to provide specific advice to homeowners pertaining to their particular flooding hazard. These CFMs maintain their certification by regularly participating in training as well as by attending at least one floodplain management conference per year. There are also several more CFMs within the Public Works department however they do not have active floodplain management roles.

**Pinal County Flood Mitigation Projects Update**
Four flood mitigation projects listed in the MJHMP have been completed over the past few years with several more currently in the study or design phase. A summary of some of the mitigation projects listed in the MJHMP, as well as some additional ones Pinal County is working on, is listed below:

- **Develop Inter-Governmental Agreements (IGAs) with County Dependent Communities:** Pinal County is in the unique position that it also has floodplain management responsibility for seven cities residing within the County. This project was identified in the MJHMP as an activity that would codify a set of standard operating procedures between the jurisdictions in order to better serve the residents. This is an ongoing project; one IGA has been completed and several others are in progress.

- **Quarterly Flood Control Meetings with Local Jurisdictions:** Another project identified in the MJHMP as having high importance is to have regular meetings with the local jurisdictions to discuss the status of floodplain issues affecting the community. Pinal County holds quarterly Flood Advisory Council meetings to serve this purpose. The meetings typically cover policy issues affecting the community as well as the status of mitigation projects and studies. The meetings have greatly improved the relationship Pinal County has with the local cities.
Recently, these meetings have been attended by other agencies that existing within Pinal County such as the San Carlos Irrigation and Drainage District and the Bureau of Indian Affairs. This represents a great opportunity to collaborate on regional drainage issues and infrastructure enhancement and development projects.

**Lower Santa Cruz River Flood Mitigation:** In conjunction with the US Army Corps of Engineers a feasibility study for a regional project on the Santa Cruz River is being conducted. An extensive hydrologic and hydraulic analysis of the river has been completed for the entire reach within Pinal County.

The feasibility study is still underway is likely to be completed in late 2020. However, the project alternative that was identified by the US Army Corps of Engineers has some developmental challenges that need to be overcome.

**Hunt Highway & Magma Road Flood Mitigation:** Pinal County has made major investments in regional drainage infrastructure in the unincorporated community of San Tan Valley. The project included the construction of more than 2 miles of channels as well as a regional detention basin attenuate peak flood flows. The completed project has resulted in a reduction in flooding problems for 3 residential subdivisions and hundreds of single and multi-family homes. Expenditures for land acquisition, design & construction of this project exceeded $5 million.

**ALERT Gauges:** Pinal County owns and operates a network of 45 rainfall and stream gauges placed strategically around the County. This system provides important data to the National Weather Service which uses it to prepare more accurate weather forecasts and flood warnings. This project was identified in the MJHMP and is an ongoing effort. The system is maintained annually with new components being added in accordance with the ALERT program’s five year plan.

In 2019, additional gauging stations were added to the system and several older stations were upgraded to work with the latest ALERT protocols. We are also looking to added cameras to our Stream/Rain gauge sites. This will add additional value to the information presented on the ALERT website and also help to verify/validate the data that is being reported to the system base station.

The table of projects from the MJHMP is attached to this report.

**Flood Control 5-Year Capital Improvement and Study Plan**
In 2019, the Pinal County Flood Control district finalized its first written 5-Year Capital Improvement and Study Plan. This document plans out all of the projects and studies that are anticipated to occur over the next 5 years. The plan is noted as “final” however it is a living document that will continually be updated throughout the year as projects can added, removed, or changed. The Pinal County Board of Supervisors accepted the draft plan in the fall of 2018. A copy of this plan is attached to this update.

**Pinal County Floodplain Mapping and Studies**
Pinal County is currently working several floodplain delineation studies in an effort to improve the accuracy and reliability of the FEMA Flood Insurance Rate Maps (FIRMs). Accurate maps help to
build public confidence while also supporting smart growth and development within the County. Since these maps also form the basis for where flood insurance would be required, accuracy is important in helping to ensure that federally mandated flood insurance is required for structures that actually have a 1% annual chance of flooding.

The Eloy Industrial Park study referenced in last year's floodplain management plan update has been completed and was made effective on 05/16/2019. The table below shows this, and any other LOMRs, that have modified the limits of the Special Flood Hazard Area within Pinal County.

<table>
<thead>
<tr>
<th>Name</th>
<th>Panel#</th>
<th>Case Number</th>
<th>Effective Date</th>
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</thead>
<tbody>
<tr>
<td>Eloy Industrial Park</td>
<td>04021C1560F</td>
<td></td>
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<td></td>
<td>04021C1570F</td>
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<td>04021C1957F</td>
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<td></td>
<td>04021C1975F</td>
<td>16-09-2300V-040077</td>
<td>5/16/2019</td>
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<tr>
<td>Saddlebrooke</td>
<td>04021C2475E</td>
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<td></td>
</tr>
<tr>
<td>Marketplace</td>
<td></td>
<td>18-09-1787P-040077</td>
<td>5/14/2019</td>
</tr>
</tbody>
</table>

**Pinal County Floodplain Ordinance**

In May of 2019 Pinal County adopted a new Floodplain Ordinance. This ordinance updates and replaces the previous ordinance that was adopted in August of 2006. Periodically, the Federal Emergency Management Agency (FEMA) will review a community's floodplain regulations to ensure that they remain compliant with the minimum standards of the National Flood Insurance Program. These ordinance reviews are typically conducted when new flood insurance rate maps are produced and are about to become effective.

FEMA conducted a review of the current regulations and we were notified in late 2018 that the 2006 Pinal County Floodplain Ordinance no longer met the minimum standards. The Arizona Department of Water Resources (ADWR) concurred with FEMA and also sent Pinal County notification that the ordinance needed to be revised. Pinal County staff spent the next few months working with ADWR on making the necessary changes to bring the Floodplain Ordinance up to today's standards.

Overall, there are substantial changes in the look, formatting and organization of the new ordinance. The new ordinance is based primarily upon the State model ordinance rather than a Maricopa County Ordinance (which the 2006 one was). One of the big improvements is the increase in the number of definitions. We will be going from 69 definitions in the 2006 ordinance to 162 definitions in the proposed. This is one main problems identified by FEMA and ADWR.

One important change is in how we defined our Area of Jurisdiction. In the existing ordinance the Area of Jurisdiction for this regulations is somewhat ambiguous. However, it covers all FEMA floodplains, maps floodplains, areas with watersheds carrying 200cfs or more, and the 1983 flood area. In the proposed ordinance we define the area of application of the regulation as the Regulatory floodplain. This includes those same areas mentioned previously but now defines local
floodplains as well as delineated floodplains. The actual area where we will require floodplain use permits has not changed - only the terminology used to describe it has.

Other changes to the ordinance included increasing the standard for floodproofing from twelve inches above the base flood elevation to eighteen inches, updating the enforcement procedures to match the state law, providing guidance on compensatory storage requirements, and updated subdivision regulations.

In terms of changes to subdivision development, the new ordinance Restricts construction of new homes in subdivisions (master planned communities) from being located in the floodplain. This requires that LOMR to be filed and approved before building permits on homes in the floodplain can be obtained. There are requirements for subdivision developers who plan to make physical changes to the floodplain to go through the CLOMR/LOMR process.

We also decreased the standards for floodway development. The current ordinance basically doesn't allow anything new within the floodway. In some places where you have a very narrow and deep floodplain, this approach makes sense. However, in Pinal County we have floodways defined on portions of four watercourses; the Santa Cruz River, the San Pedro River, The Gila River, and the Queen Creek Wash in Superior.

The problem with the current regulation is that the floodway can be a mile or more wide in some of these areas while also being very shallow. So in these cases it does not make sense to prohibit buildings outright. In addition, in Superior for example, there are 85 existing buildings located in the floodway that cannot be improved because of this regulation. The proposed regulation will address these issues by allowing development that is elevated properly and that has an engineer’s certification of no rise. This is consistent with many other jurisdictions.

**Summary**

Pinal County has achieved a “Class 7” rating under the CRS program’s criteria primarily due to its comprehensive approach to floodplain management and its experienced staff. Pinal County’s participation in the CRS program has resulted in a 15% reduction in flood insurance policy premiums for properties within Special Flood Hazard Area (SFHA) of the unincorporated portion of the County.

Progress on the 2016 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) has been made over the past year with many flood mitigation projects having been completed or started. In addition to this, Pinal County completed and started various mitigation projects that weren’t included in the MJHMP and is currently working on the early stages of several others. An updated project list is attached.

**Attachments**

- Multi-Jurisdictional Hazard Mitigation Plan FEMA Approval Notice
- Multi-Jurisdictional Hazard Mitigation Plan Project Table
- Flood Control 5-Year Capital Improvement and Study Plan (Final)
August 18, 2017

Chuck Kmet  
Emergency Manager  
Pinal County Office of Emergency Management  
P.O. Box 727  
31 North Pinal Street  
Florence, AZ 85132

Dear Mr. Kmet:

We have completed our final review of the Pinal County Multi-Jurisdictional Hazard Mitigation Plan, officially adopted by Pinal County on July 12, 2017, and found the plan to be in conformance with Title 44 Code of Federal Regulations (CFR) Part 201.6 Local Mitigation Plans. A list of the status of participating jurisdictions is enclosed with this letter.

The approval of this plan ensures Pinal County’s continued eligibility for project grants under FEMA’s Hazard Mitigation Assistance programs, including the Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program. All requests for funding, however, will be evaluated individually according to the specific eligibility, and other requirements of the particular program under which applications are submitted.

Also, approved hazard mitigation plans are eligible for points under the National Flood Insurance Program’s Community Rating System (CRS). Additional information regarding the CRS can be found at [https://www.fema.gov/national-flood-insurance-program-community-rating-system](https://www.fema.gov/national-flood-insurance-program-community-rating-system) or through your local floodplain manager.

FEMA’s approval of the Pinal County Multi-Jurisdictional Hazard Mitigation Plan is for a period of five years, effective starting the date of this letter. Prior to August 18, 2022, Pinal County and all participating jurisdictions are required to review and revise the plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval in order to continue to be eligible for mitigation project grant funding. The enclosed plan review tool provides additional recommendations to incorporate into the plan during the plan maintenance process.

If you have any questions regarding the planning or review processes, please contact Alison Kearns, Lead Community Planner, at (516) 627-7125 or by email at alison.kearns@fema.dhs.gov.

Sincerely,

[Signature]

Jeffrey D. Lusk  
Division Director  
Mitigation Division  
FEMA Region IX

cc: Lucrecia Hernandez, State Hazard Mitigation Officer, Arizona Department of Emergency and Military Affairs  
Susan Austin, Planning Branch Manager, Arizona Department of Emergency and Military Affairs
Status of Participating Jurisdictions as of August 18, 2017

Jurisdictions – Adopted and Approved

<table>
<thead>
<tr>
<th>#</th>
<th>Jurisdiction</th>
<th>Date of Adoption</th>
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<tbody>
<tr>
<td>1</td>
<td>Pinal County</td>
<td>7/12/2017</td>
</tr>
<tr>
<td>2</td>
<td>Coolidge, City of</td>
<td>8/14/2017</td>
</tr>
<tr>
<td>3</td>
<td>Kearny, Town of</td>
<td>7/17/2017</td>
</tr>
</tbody>
</table>

Jurisdictions – Approvable Pending Adoption

<table>
<thead>
<tr>
<th>#</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Apache Junction, City of</td>
</tr>
<tr>
<td>2</td>
<td>Casa Grande, City of</td>
</tr>
<tr>
<td>3</td>
<td>Eloy, City of</td>
</tr>
<tr>
<td>4</td>
<td>Florence, Town of</td>
</tr>
<tr>
<td>5</td>
<td>Mammoth, Town of</td>
</tr>
<tr>
<td>6</td>
<td>Maricopa, City of</td>
</tr>
<tr>
<td>7</td>
<td>Superior, Town of</td>
</tr>
</tbody>
</table>
### Table 5-11: Mitigation Strategy for Pinal County

<table>
<thead>
<tr>
<th>Project Name Description</th>
<th>Hazard(s) Mitigated</th>
<th>Estimated Cost</th>
<th>Project Primary or Lead</th>
<th>Potential Funding Source(s)</th>
<th>Status</th>
<th>Explanation or brief description of work so far or reason for 'no progress'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop IGAs with County dependent communities to define and clarify roles in implementing the NFIP program and managing the floodplains</td>
<td>Flood</td>
<td>$15,000+ Staff Time Jan 2018</td>
<td>Pinal Co Flood Control District / Section Chief</td>
<td>Flood Control District Levy</td>
<td>In Progress</td>
<td>IGA with Eloy complete. Still working with other communities.</td>
</tr>
<tr>
<td>Develop Wildfire Mitigation and Prevention program to include community awareness.</td>
<td>Wildfires</td>
<td>$30,000+ Staff Time June 2017</td>
<td>Pinal Co Office of Emergency Mgt</td>
<td>Grant Funding</td>
<td>In progress</td>
<td>Oracle Fire is only FireWise community so revise project to get other jurisdictions on board.</td>
</tr>
<tr>
<td>Conduct quarterly flood control Meetings with all districts, Indian Tribes, and Cities</td>
<td>Flood</td>
<td>Staff Time Ongoing</td>
<td>Pinal Co Flood Control District</td>
<td>Flood Control District</td>
<td>In Progress</td>
<td>Quarterly meetings are held with stakeholders.</td>
</tr>
<tr>
<td>Fissure monitoring for state-wide mapping by AZGS and promote fissure awareness with the public</td>
<td>Subsidence, Fissure</td>
<td>$10,000/ yr + Staff Time</td>
<td>Pinal Co Office of Emergency Mgt</td>
<td>OEM Grant Funding</td>
<td>In Progress</td>
<td>IGA with ADWR and the Pinal County FCD pays for InSAR coverage</td>
</tr>
<tr>
<td>All Weather Access analysis. Review County transportation network and determine areas in need of stream crossing upgrades to improve public access.</td>
<td>Flood</td>
<td>$20,000/ Staff Time June 2020</td>
<td>Pinal Co Transportation Planner</td>
<td>Flood Control District Levy/ HURF</td>
<td>In Progress</td>
<td>No separate analysis – there is some data in the ADMP’s about access issues</td>
</tr>
<tr>
<td>Superior Flood Prone Property Plan. Develop a plan to address homes currently located in FEMA floodway. Plan to address feasibility of mitigation projects and potential property buy-outs.</td>
<td>Flood</td>
<td>$2M+ Staff Time June 2020</td>
<td>Pinal Co Flood Control District</td>
<td>Flood Control District Levy</td>
<td>No Progress</td>
<td>PCFCD is working on a survey and possible flood mitigation project at this time. It may include land acquisition, but we want the Town to buy into the concept.</td>
</tr>
<tr>
<td>Queen Valley Flood Mitigation Plan. Multi-phase project to address flooding in the community. Planned elements include construction of new culverts, improved channel segments, and removal of floodplain encroachments.</td>
<td>Flood</td>
<td>$1.5M + Staff Time Dec 2017</td>
<td>Pinal Co Flood Control District</td>
<td>Flood Control District Levy</td>
<td>Complete</td>
<td>Plan is complete. Construction on some of the plan is underway. There is more in the plan we could implement.</td>
</tr>
</tbody>
</table>
Table 5-11: Mitigation Strategy for Pinal County

<table>
<thead>
<tr>
<th>Project Name Description</th>
<th>Hazard(s) Mitigated</th>
<th>Estimated Cost</th>
<th>Project Primary or Lead</th>
<th>Potential Funding Source(s)</th>
<th>Status</th>
<th>Explanation or brief description of work so far or reason for ‘no progress’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Santa Cruz River Watercourse Master Plan. Develop a reconnaissance study to determine possible flood mitigation alternatives.</td>
<td>Flood</td>
<td>$1.5M+ Staff Time June 2018</td>
<td>USACE/Pinal Co Flood Control District</td>
<td>Federal Funding</td>
<td>In Progress</td>
<td>Cost share for PCFCD is $1.5 million for 3 years</td>
</tr>
<tr>
<td>Emergency Shelters/Redundant Power. Develop Shelter Operations Plan along with appropriate contracts &amp; agreements. Plan for ensuring shelter sites have permanent or access to back-up power.</td>
<td>Severe Wind</td>
<td>$30,000 June 2016</td>
<td>Pinal Co OEM</td>
<td>General Fund</td>
<td>In Progress</td>
<td>Finalize shelter plan; get schools to sign AZMAC; retrofit schools for generator power</td>
</tr>
<tr>
<td>ALERT Gauges. Includes the maintenance of the existing ALERT system as well as yearly software and hardware upgrades.</td>
<td>Flood</td>
<td>$200,000+ Staff Time Ongoing</td>
<td>Pinal Co Flood Control District</td>
<td>Flood Control District Levy</td>
<td>In Progress</td>
<td>Yearly we spend between $150,000 and $200,000 on ALERT</td>
</tr>
</tbody>
</table>
Pinal County Flood Control District 5-Year Capital Improvement and Study Plan

Fiscal Years FY19-20 through FY23-24

Final Report
January, 2019
1. Annual Budget & Overhead, Fund #68

The Pinal County Flood Control District receives funds through a secondary property tax paid by Pinal County property owners. Additionally, the District seeks financial project partnerships from Federal, state and local agencies to supplement tax revenue. Other revenue sources include sales of excess land and other assets, permitting fees, and fund balance interest.

The District’s annual revenue is approximately $3.3 Million. By the beginning of FY23-24, annual revenues are expected to be approximately $4 Million. The District’s overhead costs (Salaries, Equipment, Emergency Management Support, etc) are about $840,000 and are expected to exceed $1.2 Million by FY23-24. In addition to overhead, the District has several annual obligations and programs (described in detail in section 2) with expenses nearing $300,000. By FY23-24, these annual expenses are expected to be about $585,000.

At the beginning of FY18-19, the District had a fund balance of approximately $7.4 Million.
2. Annual Programs & Projects, Fund #68

2.1. ALERT Flood Warning System
The Pinal County Flood Control District currently has an ALERT system with a base station located in Florence, Arizona that receives data from remote sensor stations owned and operated by the Pinal County Flood Control District, the Pima County Regional Flood Control District, the Flood Control District of Maricopa County (FCDMC), and the Arizona Department of Water Resources (ADWR). Additionally, real-time data generated by the county’s ALERT system are received at the offices of the National Weather Service (NWS) located in Phoenix and Tucson. The NWS uses the ALERT system data in support of their forecast and weather/flood advisory programs and decision support systems.

The main components of the ALERT program include in gauging station installations, maintenance, data storage and processing, and website/public/user interfacing. Annual funding for this program is set at $200,000.

2.2. NPDES Phase II Compliance
The District is currently responsible for ensuring that Pinal County remains compliant with the MS4 program as administered by the Arizona Department of Environmental Quality (ADEQ). This annual program includes funds for inspections, water sample testing, plan development, plan review, training, public outreach, and annual reporting. The annual budget for this effort has been set at $30,000.

2.3. Community Rating System
On May 1st, 2015, Pinal County became a participant in the National Flood Insurance Program’s (NFIP) Community Rating System (CRS) with a class rating of 7. The CRS program was implemented nationally in 1990 and recognizes the efforts of communities who exceed the NFIP’s minimum standards.

The result of Pinal County joining the CRS means that residents living in the unincorporated areas of Pinal County can receive discounts on their flood insurance policy. For residents with homes in the Special Flood Hazard Area a 15% discount on insurance premiums is available. For residents with homes in a lower risk area a 5% discount on flood insurance is available.

In order to maintain Pinal County’s classification, the District must perform several actions. Some of the primary actions include preparing an annual report, update GIS databases with mapping and permitting information, and performing public outreach functions, among other things. The annual budget for this program is currently $15,000. It will increase to $40,000 in FY19-20 due to the requirement to recertify every 5 years. Subsequent to this, it is expected that the new budget will be set at $20,000 per year thereafter.

2.4. Levee Analysis, Countywide
The District is responsible for reviewing, analyzing, and maintaining an inventory of levees and levee-like structures throughout the county. This data will be compiled and evaluated
against applicable engineering standards, the draft requirements of the Arizona Counties Insurance Pool (ACIP) Levee and Dike Policies, and Part 65.10 of 44 CFR, National Flood Insurance Program (NFIP) regulations. The annual budget for this effort has been set at $50,000.

2.5. San Pedro River Crossing Permit
The District pays $20,000 biennially to renew a permit for a crossing on the San Pedro River.

2.6. Litigation Schnepf Bridge
In 2006, the Schnepf Road Bridge in Queen Creek was permanently closed because the structure’s stability was compromised during a flood. Subsequently, a lawsuit was filed against area sand and gravel mining businesses to recover funds to replace the bridge. Construction of the bridge has since been completed, however, the all of the terms of the settlement agreement have not been fully executed at this time. An annual appropriation of $5,000 is set to pay for legal fees, etc until all remaining tasks have been completed.

2.7. Litigation Sorrento
An annual appropriation of $50,000 is set to deal with a lawsuit regarding the Sorrento development until the case is close.

2.8. Misc Land Acquisition
An annual appropriation of $5,000 is made for various easements or rights of way that the district may need throughout any given year.

2.9. Topographic Mapping
The District is set an annual budget of $100,000 to acquire 1ft topographic mapping of various sections of Pinal County. This program helps to support future projects, floodplain mapping studies, and in-house design work. Depending on the number and location of the areas to be acquired, $100,000 will cover around 4 square miles of land.

2.10. Flood Control Structure Maintenance
The District currently owns several channels and basins throughout Pinal County. The annual budget for maintenance of these structure is currently $200,000. However, this will be reduced to $100,000 starting in FY19-20.
3. Capital Improvement Project Descriptions, Fund #68

3.1. Lower Santa Cruz River Feasibility Study, US Army Corps of Engineers

3.1.1. Project Description
A joint feasibility study between Pinal County Flood Control and the US Army Corp of Engineers to study 80 stream miles of the Lower Santa Cruz River (LSCR). The goal of the feasibility study is to find a regional or localized solution to the flooding problems. The feasibility study is expected to complete in FY21-20.

3.1.2. Project Information
District: 1, 3, & 4
Location: Maricopa
Status: Underway
Funding Allocation FY18-19: $1,000,000 (Study)
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.2. Community Capital Improvement Projects (Various Locations)

3.2.1. Project Description
An annual placeholder of $250,000 for projects with incorporated Cities. Projects for FY18/19 and FY19-20 have already been selected (Superior & Eloy respectively). Future projects remain undetermined at this time.

3.2.2. Project Information
District: All
Location: Countywide
Status: Underway
Funding Allocation FY18-19: $0 (Allocated to the Superior Project)
Funding Allocation FY19-20: $0 (Allocated to the Eloy Project)
Funding Allocation FY20-21: $250,000 (Design & Construction)
Funding Allocation FY21-22: $250,000 (Design & Construction)
Funding Allocation FY22-23: $250,000 (Design & Construction)
Funding Allocation FY23-24: $250,000 (Design & Construction)

3.3. Amarillo Valley Dams Rehabilitation

3.3.1. Project Description
This project is a complete assessment of the 4 detention basins that Pinal County Flood Control owns in the Hidden Valley. In addition, funds have been allocated for
construction activities to bring the basins out of ADWR’s jurisdictional dam classification.

3.3.2. **Project Information**

*District:* 4  
*Location:* Hidden Valley  
*Status:* Underway  
*

**Funding Allocation FY18-19:** $800,000 (Construction)  
**Funding Allocation FY19-20:** $0  
**Funding Allocation FY20-21:** $0  
**Funding Allocation FY21-22:** $0  
**Funding Allocation FY22-23:** $0  
**Funding Allocation FY23-24:** $0

3.4. **Queen Valley Flood Mitigation, Phase II**

3.4.1. **Project Description**

This project is a complete assessment of the 4 detention basins that Pinal County Flood Control owns in the Hidden Valley. In addition, funds have been allocated for construction activities to bring the basins out of ADWR’s jurisdictional dam classification.

3.4.2. **Project Information**

*District:* 5  
*Location:* Queen Valley  
*Status:* Complete  
*

**Funding Allocation FY18-19:** $30,000 (Construction)  
**Funding Allocation FY19-20:** $0  
**Funding Allocation FY20-21:** $0  
**Funding Allocation FY21-22:** $0  
**Funding Allocation FY22-23:** $0  
**Funding Allocation FY23-24:** $0

3.5. **McClellan Wash Watercourse Master Plan**

3.5.1. **Project Description**

Pinal County Flood Control is currently working on a Watercourse Master Plan for the McClellan Wash Watershed. This plan includes a comprehensive Hydrologic and Hydraulic analysis of the watershed as well as a determination of regional and local projects designed to mitigate flooding in the area. The plan will ultimately be adopted by the Pinal County Flood Control Board of Directors and the City of Eloy with the intent that projects will be jointly funded in the future. In addition, the plan will form a consistent standard for which future development will need to adhere to.

3.5.2. **Project Information**
3.6. Dudleyville Community Center Flood Mitigation

3.6.1. Project Description
This project seeks to mitigate flooding on the Dudleyville Community Center property as well as the local fire departments property. The drainage analysis has been completed and the design is underway.

3.6.2. Project Information
District: 1
Location: Dudleyville
Status: Underway
Funding Allocation FY18-19: $50,000 (ROW)
Funding Allocation FY19-20: $500,000 (Design & Construction)
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.7. Airpark Drainage and Flood Mitigation

3.7.1. Project Description
A regional/local drainage assessment of the Pinal Airpark as well as the three tributary watersheds impacting the Airpark’s property and assets.

3.7.2. Project Information
District: 4
Location: Marana
Status: Underway
Funding Allocation FY18-19: $105,000 (Study)
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0
3.8. Sunland Gin Road and Flood Mitigation

3.8.1. Project Description
A study to find a regional solution to the flooding of Sunland Road and the vicinity south of Arizona City. The study may result in a design for roadway improvements that may be funded by Pinal County Public Works. In addition, Pinal County Flood Control is seeking FEMA funding to help pay for the project. This project also includes floodplain mapping of the Greene Wash from split with the Santa Cruz River upstream.

3.8.2. Project Information
District: 4  
Location: Arizona City  
Status: Underway  
Funding Allocation FY18-19: $260,500 (Study)  
Funding Allocation FY19-20: $0  
Funding Allocation FY20-21: $0  
Funding Allocation FY21-22: $0  
Funding Allocation FY22-23: $0  
Funding Allocation FY23-24: $0

3.9. Superior Church Avenue and Copper Mountain Motel

3.9.1. Project Description
This project includes the design and construction of the Church Ave and Copper Mountain Flood Mitigation Project within the Town of Superior. It will mitigate the risk of flooding on 10 to 15 residences and businesses as well as improve access for up to 75 residences and businesses.

3.9.2. Project Information
District: 1  
Location: Superior  
Status: Underway  
Funding Allocation FY18-19: $16,000 (Design), $300,000 (Construction)  
Funding Allocation FY19-20: $0  
Funding Allocation FY20-21: $0  
Funding Allocation FY21-22: $0  
Funding Allocation FY22-23: $0  
Funding Allocation FY23-24: $0

3.10. Russell Road Industrial Area

3.10.1. Project Description
This project seeks to evaluate the drainage problems in the area of Russell Road, Peters & Nall Road, and Maricopa-Casa Grande Highway. There are existing drainage problems within the Saddleback Farms Subdivision, the Industrial area, and the Ak-Chin Airport. This project’s goal is to find a comprehensive regional solution to these
problems that also will work with the proposed future East-West Corridor. In addition, there is an opportunity to jointly fund the project with the Ak-Chin Indian Tribe.

3.10.2. Project Information
District: 3
Location: Maricopa
Status: Underway
Funding Allocation FY18-19: $241,000 (Study)
Funding Allocation FY19-20: $125,000 (Design)
Funding Allocation FY20-21: $650,000 (Construction)
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.11. Roberts/Thompson Channel
3.11.1. Project Description
This project will look at the feasibility of construction a channel along Thompson Road south of Roberts Road in San Tan Valley. The goal is to mitigate flooding on several residential properties as well as Eduprize School. Should a feasible project result from the study, design and land acquisition would begin in FY19-20.

3.11.2. Project Information
District: 2
Location: San Tan Valley
Status: Underway
Funding Allocation FY18-19: $90,000 (Study)
Funding Allocation FY19-20: $100,000 (Design), $350,000 (ROW)
Funding Allocation FY20-21: $600,000 (Construction)
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.12. Valley of the Sun Flood Mitigation, Phase IIB (Skyline Channel)
3.12.1. Project Description
This project will finish the design of the proposed Skyline Road channel which will give an outfall for drainage to the Valley of the Sun community. This will eliminate a ponding issue that currently impacts more than 50 residential lots in addition to several roadways. Design was originally underway in 2011, however, the project was put on hold.

3.12.2. Project Information
District: 5
**Location:** San Tan Valley  
**Status:** Underway  
**Funding Allocation FY18-19:** $125,000 (Design)  
**Funding Allocation FY19-20:** $300,000 (Construction)  
**Funding Allocation FY20-21:** $200,000 (Construction)  
**Funding Allocation FY21-22:** $0  
**Funding Allocation FY22-23:** $0  
**Funding Allocation FY23-24:** $0

### 3.13. Overfield/Randolph Drainage Mitigation

#### 3.13.1. Project Description
In recent years, 8 properties have sustained significant flooding damage. This project will identify potential flood mitigation and flood risk reduction alternatives in and around the area of Overfield and Randolph Roads. It will also provide comprehensive documentation of the flooding risk in the area.

#### 3.13.2. Project Information
- **District:** 3  
- **Location:** Coolidge  
- **Status:** Underway  
- **Funding Allocation FY18-19:** $92,000 (Study)  
- **Funding Allocation FY19-20:** $0  
- **Funding Allocation FY20-21:** $0  
- **Funding Allocation FY21-22:** $0  
- **Funding Allocation FY22-23:** $0  
- **Funding Allocation FY23-24:** $0

### 3.14. Coolidge Southeast Drainage Project

#### 3.14.1. Project Description
Located approximately five miles southeast of the City of Coolidge downtown area, the Coolidge Municipal Airport (Airport) has experienced flooding issues over recent years. Several businesses operate from the airport property. In addition, the Pinal County Sheriff’s office has a substation at the airport. This project will study the drainage issues in the area and determine feasible improvements that could be implemented in order to reduce flooding impacts to businesses and airport property.

#### 3.14.2. Project Information
- **District:** 1  
- **Location:** Coolidge  
- **Status:** Underway  
- **Funding Allocation FY18-19:** $150,000 (Study)  
- **Funding Allocation FY19-20:** $0  
- **Funding Allocation FY20-21:** $0
3.15. Welton Wash Design Concept Report

3.15.1. Project Description
This study will evaluate the flooding problems associated with Welton Wash which is located near Dudleyville. While a regional solution may be implemented at some time in the future, the intent is to consider smaller scale alternatives that could mitigate flooding during more frequent storm events.

3.15.2. Project Information
District: 1
Location: Dudleyville
Status: Underway
Funding Allocation FY18-19: $50,000 (Study)
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.16. Country Mini Farms A Zone Remapping

3.16.1. Project Description
Located in northern San Tan Valley, County Mini Farms currently has floodplain mapping through the community. The Floodplain is not contiguous to regional drainage and has no identified source. The intent is to remove this floodplain from the FEMA maps.

3.16.2. Project Information
District: 2
Location: San Tan Valley
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $50,000 (Study)
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.17. Dirtwater Springs/Main Street Drainage Mitigation

3.17.1. Project Description
Within Apache Junction there is a flooding problem on Apache Trail west of Highway 88 which impacts the Dirtwater Springs Restaurant, a nearby RV/Mobile Home Park, and
the roadway. The goal would be to find a local solution to reduce or eliminate this flooding problem. It is anticipated that this project would be performed jointly with the City of Apache Junction.

3.17.2. Project Information
District: 5
Location: Apache Junction
Status: Underway
Funding Allocation FY18-19: $5,000 (Study)
Funding Allocation FY19-20: $250,000 (Design & Construction)
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.18. Val Vista Channel Rehabilitation
3.18.1. Project Description
Pinal County Flood Control owns a channel which runs parallel to Val Vista road from Trekkel Road to Pinal Avenue. The channel is currently overgrown with vegetation and has experienced both significant erosion and sedimentation. Because of the condition the channel, the need to obtain new permits with the Corps of Engineers, a plan of rehabilitation is needed. Following this, construction operations could begin to rehabilitate the channel.

3.18.2. Project Information
District: 5
Location: Casa Grande
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $50,000 (Design)
Funding Allocation FY21-22: $350,000 (Construction)
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.19. Hidden Valley Drainage and Channel Assessment
3.19.1. Project Description
This project will study the Hidden Valley area and identify existing drainage problem areas as well as potential solutions to correct those issues. In addition, this study will support the future design/construction of several planned channel improvements that are needed to convey area flows to the District’s 4 existing detention basins in the area.

3.19.2. Project Information
3.20. San Tan Valley Area Drainage Master Plan

3.20.1. Project Description
San Tan Valley is a fast-growing community of more than 80,000 residents. This region is in need of a comprehensive area drainage master plan to help guide future development while also identifying solutions for current flooding problems. The ADMP will include acquisition of community-wide topography, a comprehensive review of all past drainage studies, and new hydrologic/hydraulic modelling. In addition, area specific drainage standards for development may also be identified. Coordination with the Town of Queen Creek and the Town of Florence will be required.

3.20.2. Project Information
- **District:** 1, 2, 5
- **Location:** San Tan Valley
- **Status:** Programmed
- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $300,000 (Study)
- **Funding Allocation FY20-21:** $0
- **Funding Allocation FY21-22:** $0
- **Funding Allocation FY22-23:** $0
- **Funding Allocation FY23-24:** $0

3.21. Greene Wash Watershed Plan

3.21.1. Project Description
The Greene Wash Watershed Plan will develop a comprehensive analysis of the Greene Wash Watershed while also looking for solutions to problems of erosion, sedimentation and flooding. The plan will be performed to NRCS specifications in order to maintain eligibility for federal funds to support future mitigation efforts resulting from the completion of the watershed plan. A grant application has been submitted to the NRCS to help fund the development of this plan.

3.21.2. Project Information
- **District:** 1 & 4
- **Location:** Arizona City
3.22. Santa Cruz River-North Branch Santa Cruz Wash Watershed Plan

3.22.1. Project Description
The SCR-North Branch Santa Cruz Wash Watershed Plan will develop a comprehensive analysis of the SCR-North Branch Santa Cruz Wash Watershed while also looking for solutions to problems of erosion, sedimentation and flooding. The plan will be performed to NRCS specifications in order to maintain eligibility for federal funds to support future mitigation efforts resulting from the completion of the watershed plan. A grant application has been submitted to the NRCS to help fund the development of this plan.

3.22.2. Project Information
District: 1 & 4
Location: Red Rock
Status: Programmed
Funding Allocation FY18-19: $20,000 (Study)
Funding Allocation FY19-20: $20,000 (Study)
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.23. Middle Magma Channel Watershed Plan

3.23.1. Project Description
The Middle Magma Channel Watershed Plan will develop a comprehensive analysis of the Middle Magma Channel Watershed while also looking move into the design phase of a proposed channel which runs through some existing subdivisions in the area. The plan will be performed to NRCS specifications in order to maintain eligibility for federal funds to support future mitigation efforts resulting from the completion of the watershed plan. Magma Flood Control District is managing the project and the funds allocated in our budget represent Pinal County Flood Control District’s potential contribution to support the project.

3.23.2. Project Information
District: 1 & 2
Location: Florence
3.24. Mammoth Kino Street Drainage Mitigation, Phase I & II

3.24.1. Project Description
Properties in the area of Kino street (as well as the street itself) within the Town of Mammoth have experienced significant flooding problems in the past. The flooding will be mitigated with a two phase project. The first phase is expected to comprise of an upstream off-line detention basin. The second phase will include two additional, smaller detention basins as well as street improvements. Flows in this project ultimately discharge to the San Pedro River. The Town of Mammoth is a funding partner and it is anticipated that the Town ultimately own and maintain the new infrastructure.

3.24.2. Project Information
District: 1
Location: Mammoth
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $105,000 (Study)
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.25. Houston Avenue Channel

3.25.1. Project Description
Located south of the Apache Junction, the Houston Industrial area has experiences multiple flooding problems in the past. In addition, several earth fissures have also caused problems for business owners and the road users. The proposed solution includes a channel that will parallel Houston Avenue, taking runoff to the existing channel on Meridian Road. An detention basin may also be needed as part of this project as well as ancillary channel structures to help keep flows away from the existing earth fissures. Coordination between FCDMC, Pinal County, Queen Creek, Mesa, and Apache Junction will be needed to complete this project.

3.25.2. Project Information
District: 5
Location: Apache Junction
3.26. Empire at Pegasus Channel

3.26.1. Project Description
The District currently owns a channel in western San Tan Valley called the Sonoqui Channel. A new channel is needed to connect the discharge from the future San Tan Groves Channel to the Sonoqui Channel. Accommodation of these flows was anticipated in the design of the Sonoqui Channel, however, developers for the adjacent subdivisions did not account for. These adjacent subdivisions have experienced flooding problems in the past. The proposed channel connection would benefit both Pinal County residents and residents in Queen Creek/Maricopa County.

3.26.2. Project Information
- District: 2
- Location: Queen Creek
- Status: Programmed
- Funding Allocation FY18-19: $0
- Funding Allocation FY19-20: $100,000 (Design), $350,000 (ROW)
- Funding Allocation FY20-21: $700,000 (Construction)
- Funding Allocation FY21-22: $0
- Funding Allocation FY22-23: $0
- Funding Allocation FY23-24: $0

3.27. Combs Road Channel

3.27.1. Project Description
This project will be designed to take flows from the existing channel on Combs Rd East of ironwood westward to the future Meridian Road Channel. This channel will need to accommodate an existing school facility and a church. Furthermore, the channel needs to provide a connection to the channels constructed by The Parks development which currently terminate at combs road. It is anticipated that the District, in coordination and/or partnership with Queen Creek would find the design of the channel. Funds for construction have not been allocated yet.

3.27.2. Project Information
- District: 2 & 5
- Location: Queen Creek
- Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $75,000 (Study)
Funding Allocation FY20-21: $100,000 (Design)
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

3.28. Arizona City Flood Mitigation, Phase II

3.28.1. Project Description
Arizona City has been subject to numerous flood events over the years. The District has completed several studies in the area and has constructed a large, regional detention basins. This project will seek to find localized solutions for flooding and will utilize the existing detention basin as an outfall point. The first part of this project will include an identification of local flood hazards as well as potential project alternatives that would complement previous efforts to reduce flooding. Construction would follow on proposed infrastructure in a logical fashion focusing in on the areas which have the worst flooding first.

3.28.2. Project Information
District: 4
Location: Arizona City
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $200,000 (Study & Design)
Funding Allocation FY20-21: $150,000 (ROW)
Funding Allocation FY21-22: $300,000 (Construction)
Funding Allocation FY22-23: $300,000 (Construction)
Funding Allocation FY23-24: $0

3.29. Eloy Industrial Park Drainage Mitigation (City of Eloy)

3.29.1. Project Description
This project is a joint project in partnership with The City of Eloy. The City has already prepared construction documents for the project to mitigate flooding in the industrial area. The District has allocated $250,000 to help fund the construction of the proposed improvements.

3.29.2. Project Information
District: 1
Location: Eloy
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $250,000 (Construction)
Funding Allocation FY20-21: $0
3.30. Saguaro & McKellips Flood Mitigation

3.30.1. Project Description
Located near the intersection of Saguaro Road and McKellips Road north of Apache Junction is a localized flooding problem that impacts 6 or 7 homes. In addition, several encroachments to the wash exist which as exacerbated the problem. This project will seek to mitigate or eliminate this drainage issue.

3.30.2. Project Information
- **District**: 5
- **Location**: Apache Junction
- **Status**: Programmed
- **Funding Allocation FY18-19**: $0
- **Funding Allocation FY19-20**: $50,000 (Study)
- **Funding Allocation FY20-21**: $75,000 (ROW)
- **Funding Allocation FY21-22**: $250,000 (Construction)
- **Funding Allocation FY22-23**: $0
- **Funding Allocation FY23-24**: $0

3.31. San Tan West Flood Mitigation

3.31.1. Project Description
The westernmost section of San Tan Valley is rural and is mostly comprised of large lot residential development. No existing drainage infrastructure exists in the area other than a large detention basin that is owned and operated by FCDMC. This project seeks to mitigate flooding issues in the vicinity of Pioneer Path Road and Sundance Road while utilizing the FCDMC basin as an outfall point. Coordination with FCDMC will be required.

3.31.2. Project Information
- **District**: 2
- **Location**: San Tan Valley
- **Status**: Programmed
- **Funding Allocation FY18-19**: $0
- **Funding Allocation FY19-20**: $0
- **Funding Allocation FY20-21**: $50,000 (Study)
- **Funding Allocation FY21-22**: $125,000 (ROW)
- **Funding Allocation FY22-23**: $400,000 (Construction)
- **Funding Allocation FY23-24**: $0

3.32. Camino Alto Detention Basin
3.32.1. **Project Description**

There is an existing drainage problem in the Peralta Estates subdivision in the area northeast of Apache Junction that is effecting the roadway as well as several homes. The local drainage issue can most likely be mitigated by the creation of a detention basin on one of the vacant lots within in the subdivision in addition to some ancillary drainage improvements within and/or adjacent to the wash.

3.32.2. **Project Information**

- **District:** 5
- **Location:** Apache Junction
- **Status:** Programmed
- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $0
- **Funding Allocation FY20-21:** $50,000 (Study)
- **Funding Allocation FY21-22:** $75,000 (ROW)
- **Funding Allocation FY22-23:** $250,000 (Construction)
- **Funding Allocation FY23-24:** $0

3.33. **Amarillo Valley Road Channel**

3.33.1. **Project Description**

This project will design and construct a channel along Amarillo Valley Road to convey flows to the District’s existing Amarillo Valley Road detention basin. The design will be supported by the Hidden Valley Drainage Assessment Study.

3.33.2. **Project Information**

- **District:** 4
- **Location:** Hidden Valley
- **Status:** Programmed
- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $0
- **Funding Allocation FY20-21:** $0
- **Funding Allocation FY21-22:** $0
- **Funding Allocation FY22-23:** $100,000 (Design), $100,000 (ROW)
- **Funding Allocation FY23-24:** $600,000 (Construction)

3.34. **Green Road Channel**

3.34.1. **Project Description**

This project will design and construct a channel along Green Road to convey flows to the District’s existing Green Road detention basin. The design will be supported by the Hidden Valley Drainage Assessment Study.

3.34.2. **Project Information**
3.35. Superior Floodplain Delineation
3.35.1. Project Description
The Town of Superior’s floodplain maps were originally created in 1978. Significant changes within the watershed as well as the town have occurred since then. New mapping is needed to accurately define the limits of the floodplain within Superior. Currently, the District has asked FEMA to fund this study, however, there may be a cost sharing requirement.

3.35.2. Project Information
District: 1
Location: Superior
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $100,000 (Design), $100,000 (ROW)

3.36. Box Canyon Floodplain Delineation (San Tan Valley)
3.36.1. Project Description
Box Canyon is an area in western San Tan Valley that is currently mapped as an approximate “A” Zone. The flows in this canyon are distributary and/or braided which makes the flood hazard more unpredictable. A new study is needed to properly delineate floodplains and replace the existing “A” Zone.

3.36.2. Project Information
District: 2
Location: San Tan Valley
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
3.37. Vekol Wash & Tributary Floodplain Delineation (Hidden Valley)

3.37.1. Project Description
The Vekol Wash in western Pinal County is currently mapped as an approximate “A” Zone. In addition, there is a general lack of hydrologic and hydraulic information regarding this flooding source. The FCDMC is currently working on their own Floodplain delineation of the Vekol Wash which terminates at the Maricopa/Pinal County Line. Once their study is complete and approved by FEMA, the District will continue that study downstream where it enters the City of Maricopa.

3.37.2. Project Information
District: 4  
Location: Hidden Valley  
Status: Programmed  
Funding Allocation FY18-19: $0  
Funding Allocation FY19-20: $0  
Funding Allocation FY20-21: $0  
Funding Allocation FY21-22: $0  
Funding Allocation FY22-23: $200,000 (Study)  
Funding Allocation FY23-24: $0

3.38. Big Wash Floodplain Delineation (Saddlebrooke)

3.38.1. Project Description
Big Wash is an area west of Saddlebrooke that is currently mapped as an approximate “A” Zone. The flows in wash are potentially large and development is getting close to the floodplain each year. A new study is needed to properly delineate floodplains and replace the existing “A” Zone.

3.38.2. Project Information
District: 4  
Location: Saddlebrooke  
Status: Programmed  
Funding Allocation FY18-19: $0  
Funding Allocation FY19-20: $0  
Funding Allocation FY20-21: $0  
Funding Allocation FY21-22: $0  
Funding Allocation FY22-23: $0  
Funding Allocation FY23-24: $150,000 (Study)

3.39. UPRR/Kinder Morgan at Eloy School Flood Mitigation
3.39.1. **Project Description**
There is an existing flooding problem at a historic school in the City of Eloy. It is alleged that the problem is partially the result of changes made by Union Pacific Railroad as well as Kinder Morgan. This study would seek to identify the flood source and proposed solutions to mitigate it.

3.39.2. **Project Information**
- **District:** 3
- **Location:** Eloy
- **Status:** Programmed
- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $0
- **Funding Allocation FY20-21:** $0
- **Funding Allocation FY21-22:** $0
- **Funding Allocation FY22-23:** $0
- **Funding Allocation FY23-24:** $75,000 (Study)

3.40. **Bogart Wash Channel**

3.40.1. **Project Description**
Bogart wash currently exists as an unimproved channel in eastern Coolidge. Several homes exist along the channel alignment and are in the floodplain. Some homes have also experienced flooding problems. This project would seek to construct a true channel that would remove homes from the floodplain and reduce flooding risk in the adjacent community.

3.40.2. **Project Information**
- **District:** 1
- **Location:** Coolidge
- **Status:** Programmed
- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $0
- **Funding Allocation FY20-21:** $0
- **Funding Allocation FY21-22:** $50,000 (Study)
- **Funding Allocation FY22-23:** $100,000 (Design)
- **Funding Allocation FY23-24:** $100,000 (ROW), $500,000 (Construction)

3.41. **Palm Wash Drainage Mitigation**

3.41.1. **Project Description**
Palm Wash, within Apache Junction, exists as both an improved and unimproved channel. There are several spots of localized flooding that need to be mitigated. Palm wash will be evaluated and improvements will be determined to address the flooding. The City of Apache Junction will be a funding partner in this project.
3.41.2. **Project Information**

- **District:** 5
- **Location:** Apache Junction
- **Status:** Programmed
- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $0
- **Funding Allocation FY20-21:** $0
- **Funding Allocation FY21-22:** $0
- **Funding Allocation FY22-23:** $125,000 (Study)
- **Funding Allocation FY23-24:** $0

3.42. **Magma Railroad Abandonment Drainage Study**

3.42.1. **Project Description**

Portions of the railroad within San Tan Valley have been abandoned or are planned to be abandoned in the future. This study will look at the potential impacts of the removal of these structures and what infrastructure may be needed as a result of the railroad abandonments.

3.42.2. **Project Information**

- **District:** 1, 2, & 5
- **Location:** San Tan Valley
- **Status:** Programmed
- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $0
- **Funding Allocation FY20-21:** $0
- **Funding Allocation FY21-22:** $0
- **Funding Allocation FY22-23:** $0
- **Funding Allocation FY23-24:** $100,000 (Study)

3.43. **CAP Overchute Evaluation Study**

3.43.1. **Project Description**

This study will determine the limits of ponding, downstream impacts, overchute sizes, floodplains, and potential breaches of the CAP Canal within Pinal County. Understanding the impact that this structure has on Pinal County will help to guide future development and infrastructure.

3.43.2. **Project Information**

- **District:** All
- **Location:** Countywide
- **Status:** Programmed
- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $0
- **Funding Allocation FY20-21:** $0
3.44. Stanfield Area Drainage Assessment

3.44.1. Project Description
Stanfield is an old farming community with little existing drainage infrastructure. This study will seek to evaluate existing drainage problems and recommend solutions to address those problems.

3.44.2. Project Information
District: 3
Location: Stanfield
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $250,000 (Study)

3.45. Copper Hill Wash Flood Risk Evaluation

3.45.1. Project Description
This study will evaluate existing encroachments and non-levee embankments that were constructed in Copper Hill Wash. The study will evaluate flood risks and seek to find a solution to these problems. This wash is located between Saddlebrooke and Oracle.

3.45.2. Project Information
District: 4
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $100,000 (Study)
4. Future Flood Control Projects, Fund #68 (Beyond 5-Years)

4.1. Queen Creek Channelization (Gantzel Road to Meridian Road)
4.2. Sonoqui Wash Floodplain Delineation (San Tan Valley)
4.3. Stanfield Channel Improvement Project
4.4. Smith Channel Improvement Project
4.5. Teel Channel Improvement Project
4.6. Milligan Channel Improvement Project
4.7. Papago Channel Improvement Project
4.8. Pecan Road Channel Improvement Project
4.9. Ralston Road Channel Improvement Project
4.10. Double Tank Watershed Plan and Flood Hazard Mapping
4.11. Silverbell Drainage Assessment
4.12. San Pedro River Floodplain Delineation (Pima County to Mammoth)
4.13. San Pedro River Floodplain Delineation (Mammoth to Winkleman)
4.15. Judy’s Road Area Drainage Assessment
4.16. McClellan Wash WCMP Regional Detention Basins/Channels (Various Areas)
4.17. Area Drainage Master Plan Updates (Various Areas)
4.18. Santa Cruz River Regional Projects, USACE (Various Areas)
4.19. Watershed Plans NRCS (Various Areas)
5. Bridge Maintenance and Repair Program, Fund #64

5.1. Gantzel Road @ Queen Creek Wash Scour Remediation #10588

5.1.1. Project Description
The area downstream of this bridge has experienced several scour. A concrete apron was constructed to temporarily fix the problem while a more comprehensive solution is being designed. The proposal to remediate the scour problem is to channelize a portion of the Queen Creek wash downstream of the bridge. This is currently in design.

5.1.2. Project Information
District: 2
Location: San Tan Valley
Status: Underway
Funding Allocation FY18-19: $25,000 (Design)
Funding Allocation FY19-20: $200,000 (Construction)
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

5.2. Boyd Road & Broadway Road Culvert Headwall #7826

5.2.1. Project Description
This bridge is currently experiencing scour and erosion. The proposed solution includes the construction of a new headwall as well as some ancillary grading work.

5.2.2. Project Information
District: 5
Location: Apache Junction
Status: Underway
Funding Allocation FY18-19: $25,000 (Design)
Funding Allocation FY19-20: $25,000 (Construction)
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

5.3. Queen Valley Dr @ Queen Creek Wash Bridge Replacement #8618

5.3.1. Project Description
The Bridge across the Queen Creek wash at Queen Valley drive is in need of replacement. Flood Control will coordinate with Public Works on starting the bridge selection or bridge repair scope process. A scour analysis was previously completed in 2016 with a recommendation to replace the bridge. Additional study will be needed to
select a cost effective bridge solution as well as to address environmental issues and floodplain impacts.

5.3.2. **Project Information**  
*District:* 5  
*Location:* Queen Valley  
*Status:* Programmed  
*Funding Allocation FY18-19:* $0  
*Funding Allocation FY19-20:* $25,000 (Study)  
*Funding Allocation FY20-21:* $200,000 (Design)  
*Funding Allocation FY21-22:* $0  
*Funding Allocation FY22-23:* $750,000 (Construction)  
*Funding Allocation FY23-24:* $0

5.4. **Superstition Mtn & Don Donelly Culvert Repairs #11398**

5.4.1. **Project Description**  
The culvert needs extensive repair to remove sediment built up within it. In addition, there is limited access to perform the maintenance and coordination with the local HOA will be necessary. The intent is to use a Maintenance Contractor and work with HOA for access, to clear out boulders from RCB system (3 structures) throughout Superstition Foothills Community. HOA to use contractor to remove accumulated debris upstream of RCB in channel. Culvert work cannot be completed until HOA contractor remove debris from the upstream wash.

5.4.2. **Project Information**  
*District:* 5  
*Location:* Gold Canyon  
*Status:* Programmed  
*Funding Allocation FY18-19:* $0  
*Funding Allocation FY19-20:* $0  
*Funding Allocation FY20-21:* $100,000 (Construction)  
*Funding Allocation FY21-22:* $0  
*Funding Allocation FY22-23:* $0  
*Funding Allocation FY23-24:* $0

5.5. **Peppersauce Bridge Abutment Repairs #7709**

5.5.1. **Project Description**  
The bridge over Peppersauce Wash south of San Manuel needs repairs to the abutments. The abutments were damaged from runoff coming through the bridge deck.

5.5.2. **Project Information**  
*District:* 1  
*Location:* San Manuel
5.6. San Manuel Hwy South of Fire Department Gabion Repairs #7711

5.6.1. Project Description
The bridge on San Manuel Highway south of the Fire Department has some damage on the gabion baskets. These are in need of repair.

5.6.2. Project Information
District: 1
Location: San Manuel
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $50,000 (Construction)
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0

5.7. Aravaipa Rd Bridge Analysis #10124

5.7.1. Project Description
There is a need to evaluate and analyze the structural components of this bridge. The ADOT inspection report indicates a 6” sag in the bridge with no traffic.

5.7.2. Project Information
District: 1
Location: Mammoth
Status: Programmed
Funding Allocation FY18-19: $0
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $50,000 (Study)
Funding Allocation FY23-24: $0

5.8. Riverside Bridge # 11368

5.8.1. Project Description
Riverside Bridge on Ray Junction Rd. Rehabilitation repairs to concrete surface of bridge to repair cracks and spalling. New Guardrail to be placed at standard height. Erosion protection to be analyzed at the time of repair. Wash channel to be analyzed prior to repairs. Sediment builds up under bridge to block opening.

5.8.2. **Project Information**

*District:* 1

*Location:* Riverside

*Status:* Programmed

- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $0
- **Funding Allocation FY20-21:** $0
- **Funding Allocation FY21-22:** $0
- **Funding Allocation FY22-23:** $50,000 (Study)
- **Funding Allocation FY23-24:** $0

5.9. **Riverside Bridge # 11369**

5.9.1. **Project Description**

Riverside Bridge on Ray Junction Rd. Rehabilitation repairs to concrete surface of bridge to repair cracks and spalling. New Guardrail to be placed at standard height. Utility crossing to be analyzed at the time of repairs. Wash channel to be analyzed prior to repairs. Sediment builds up under bridge to block opening.

5.9.2. **Project Information**

*District:* 1

*Location:* Riverside

*Status:* Programmed

- **Funding Allocation FY18-19:** $0
- **Funding Allocation FY19-20:** $0
- **Funding Allocation FY20-21:** $0
- **Funding Allocation FY21-22:** $0
- **Funding Allocation FY22-23:** $50,000 (Study)
- **Funding Allocation FY23-24:** $0

5.10. **Riverside Bridge # 11370**

5.10.1. **Project Description**

Riverside Bridge on Ray Junction Rd. Rehabilitation repairs to concrete surface of bridge to repair cracks and spalling. New Guardrail to be placed at standard height.

5.10.2. **Project Information**

*District:* 1

*Location:* Riverside

*Status:* Programmed

- **Funding Allocation FY18-19:** $0
Funding Allocation FY19-20: $0
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $0
Funding Allocation FY22-23: $50,000 (Study)
Funding Allocation FY23-24: $0

5.11. El Camino Viejo Bridge at Queen Creek Wash

5.11.1. Project Description
El Camino Viejo Bridge at Queen Creek Wash. This bridge has a sufficiency rating of 39.6 and a rating of “Intolerable” in 2 categories with a recommendation to replace the structure. This Concrete Luten Arch Style Bridge was originally constructed in 1919-1920 and was added to the National Register of Historic Places in Arizona in 1988.

5.11.2. Project Information
District: 5
Location: Queen Valley
Status: Programmed
Funding Allocation FY18-19: $35,000 (Study)
Funding Allocation FY19-20: $90,000 (Design)
Funding Allocation FY20-21: $0
Funding Allocation FY21-22: $900,000 (Construction)
Funding Allocation FY22-23: $0
Funding Allocation FY23-24: $0
Appendix A

Summary 5-Year Plan Table and Projected Budget Allocations
## Pinal County Flood Control District 5-Year Capital Improvement and Study Plan

### CAPITAL IMPROVEMENT PROJECTS AND STUDIES - FUND #64 (Bridges)

<table>
<thead>
<tr>
<th>MAP #</th>
<th>Activity</th>
<th>FY17/18</th>
<th>FY18/19</th>
<th>FY19/20</th>
<th>FY20/21</th>
<th>FY21/22</th>
<th>FY22/23</th>
<th>FY23/24</th>
<th>Comments/Notes</th>
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<td>1</td>
<td>Boyd Road &amp; Broadway Road Culvert Headwall #7826</td>
<td>5 Apache Junction</td>
<td>Underway Design &amp; Construction</td>
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<td>$25,000.00</td>
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<tr>
<td>2</td>
<td>San Manuel Hwy South of Fire Department Gabion Repairs</td>
<td>$50,000.00</td>
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<tr>
<td>4</td>
<td>Queen Valley Dr @ Queen Creek Wash Bridge Replacement</td>
<td>5 Queen Valley</td>
<td>Programmed Design &amp; Construction</td>
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<td>$200,000.00</td>
<td>$750,000.00</td>
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### GENERAL REVENUES AND EXPENDITURES - FUND #64 (Bridges)

| Total Revenue Taxes, Fees | $3,301,233.90 | $3,485,338.00 | $3,590,398.14 | $3,693,460.08 | $3,905,966.89 | $4,195,000.00 | $4,350,000.00 | $2,475,000.00 | $2,325,000.00 | $2,675,000.00 |

| Sources Less Uses | $1,732,142.00 | $2,391,274.44 | $2,412,296.81 | $461,643.01 | $195,790.01 | $473,673.27 | $5,688,861.34 | $3,297,586.90 | $885,290.09 | $423,647.08 | $227,857.07 |

| Ending Fund Balance | -$7,421,003.34 | -$5,688,861.34 | -$3,297,586.90 | -$885,290.09 | -$423,647.08 | -$227,857.07 |               |               |               |               |               |
Appendix B

Map of Planned Projects
Pinal County Flood Control District
5-Year Capital Improvement and Study Plan
Fiscal Years FY19-20 through FY23-24