Flood Control District Advisory Committee
Joel Gastelum, City of South Tucson
Ann Youberg, District 5
Kenneth Perry, District 1
David Pfordt, Town of Sahuarita
Eric Ponce, District 2
Chris Rod, District 4
James MacAdam, City of Tucson
Mike Todnem, Town of Oro Valley
Justin Turner, Oro Valley
Kieran Sikdar, City of Tucson
Jennifer Christianman, Town of Marana
John Wallace, District 3
On behalf of the Board of Directors of the Pima County Regional Flood Control District, I am pleased to present the District’s Annual Report for Fiscal Year 2017/18. This report provides an overview of District activities as well as summarizing financial information.

The District’s Capital Improvement Program continues to be successful with the completion of various flood safety projects providing benefits such as flood control, recreation and neighborhood stabilization. District staff has completed various projects, programs and other activities throughout the fiscal year. Drainageway maintenance, map information services, permitting and technical assistance also continue to demand significant attention. In addition to these broad activities, I am especially proud of the following accomplishments.

The final segment of the Chuck Huckelberry Loop was put into place as part of the Pantano Wash Bank Protection project. In March, a community-wide celebration was held at various Pima County locations to mark the completion of the now 131-mile system of linear parks and trails along major rivers and tributaries. The Loop has additional benefits such as floodprone land acquisition and property protection, and is an example of the multi-benefit approach that the District implements with all capital improvement projects.

Through the Federal Emergency Management Agency’s Community Rating System and Program for Public Information, the District carried out a new outreach program that promotes flood safety while driving during storms, and the need for flood insurance. During the summer of 2018, Pima County Board of Supervisor Ramón Valadez, District 2, filmed six public service announcements related to these outreach programs, and the PSAs began running on Spanish and English language television and radio stations in July.

In November, the Board of Supervisors adopted Technical Policy-033, FLO-2D Technical Guidance for Hydrologic and Hydraulic Modeling. This policy was the culmination of an over two-year stakeholder and public input process coordinated by District staff and consultants. Previous versions of the FLO-2D software did not contain information from arid environments such as Pima County, but using historical data from the District’s ALERT System, the software update was able to include the information that will help model floodplains in dry locations.

Throughout the year, a number of significant storms occurred including a storm on July 23, 2017 in which 2.5 inches of rain fell in one hour causing flooding that effected numerous properties along Valencia Wash. Overall, the District’s flood control infrastructure performed as designed with minimal reports of flood damage.

In conjunction with the Chesapeake Conservancy in Maryland, the District completed a high-resolution land cover dataset aerial images that categorize natural and human made features that exist on the landscape, such as buildings, vegetation, and water features. These images will be used to help the District conduct basin studies and hydrologic analyses by allowing for a finer and more accurate assessment of how floodwaters are impacted by hardscape features.

I hope you will take the time to review this information. This year’s report and all previous annual reports are available at: www.rfcd.pima.gov.

Suzanne Shields, P.E.
Director and Chief Engineer
Overview of the District

To comply with federal law, the State of Arizona passed the Floodplain Management Act of 1973, which authorized Arizona counties to adopt rules and regulations concerning management of floodplain areas. The Arizona State Legislature subsequently authorized flood control districts to levy taxes on real property to finance operating expenses. The Pima County Board of Supervisors (Board) organized the Regional Flood Control District (District) on June 5, 1978. The District became operational on July 1, 1978.

Provisions of state legislation also allow incorporated cities and towns within Pima County (County) to undertake their own floodplain management duties and regulatory functions. In the County, the incorporated areas of the City of Tucson (COT), the Town of Oro Valley, the Town of Marana, and the Town of Sahuarita have elected to assume floodplain management duties in their respective jurisdictions. The District is responsible for floodplain management activities for the remainder of the unincorporated County (with the exception of national forests, parks, monuments, and Indian Nations) and the City of South Tucson.

Mission

The District is a regional agency whose mission is to protect the health, safety, and welfare of County residents by providing comprehensive flood protection programs and floodplain management services. These services emphasize fiscal responsibility, protection of natural resources, and a balanced multi-objective approach to managing regional watercourses, floodplains and stormwater resources.

Vision

The District will continue to be a leader in providing quality flood protection and floodplain management services within the County.
The goals and objectives of the District represent both flood control and resource protection. The District’s approach varies from traditional flood control approaches because of its multi-benefit public philosophy. The District recognizes that it is necessary and desirable to maintain a balanced relationship between human communities and the land and resources that sustain them. To that end, the following policy goals and objectives have been adopted by the Board of Supervisors (Board) as part of the Floodplain Management Ordinance (Ordinance):

• Minimize flood and erosion damages;
• Meet or exceed state and federal requirements relating to floodplain management thereby enabling County residents to purchase low-cost flood insurance, receive disaster relief (should the need arise), and seek residential and commercial real estate loans;
• Establish minimum flood protection elevations and damage prevention requirements for structures and other types of development that may be vulnerable to flood and erosion damage;
• Regulate encroachment and building development located within areas subject to flooding, erosion, or located within riparian habitat areas, and ensure that the flood-carrying capacity within the altered and/or relocated portion of any watercourse is maintained;
• Encourage the most effective expenditures of public money for flood control projects;
• Minimize the need for rescue and relief efforts associated with flooding and erosion, which are generally undertaken at the expense of the general public;
• Minimize damage to utilities and public facilities such as water and gas mains, electricity, telephone and sewer lines, and streets and bridges located in regulatory floodplain and erosion hazard areas;
• Help maintain a stable tax base by providing protection of regulatory floodplain and erosion hazard areas;
• Inform the public where property lies within a regulatory floodplain, riparian habitat area or erosion hazard area;
• Ensure that those who occupy areas within regulatory floodplain and erosion hazard areas assume the responsibility for their actions within those areas;
• Protect, preserve and enhance groundwater recharge; and
• Encourage the preservation of natural washes, riparian habitat, and preserve the riverine environment.
District Activities

Customer Service Programs

The District encourages residents to become familiar with flood-related hazards that may impact their property or properties they are considering for purchase. To assist in this research, the District maintains an abundant amount of information at our Floodplain Management Division’s (Floodplain Management) customer service counter which includes floodplain maps, elevation certificates, detailed hydrologic and hydraulic studies, historic and current aerial photos and topographic information.

Residents may discuss any of this information with a hydrologist who will provide additional information regarding limitations on the property or requirements that may apply for proposed improvements due to the extent of flooding or erosion hazards.

Floodplain Management also provides an efficient Special Flood Hazard Area (SFHA) Identification Service. This information is conveniently provided in writing via a Flood Hazard Information Sheet.

This form identifies whether the property is located in or out of the floodplain and/or floodway, and whether the structure is in or out of the floodplain. This service is provided at our customer service counter. Alternatively, by going to: http://webcms.pima.gov/cms/one.aspx?portalid=169&pageid=59581, a user can enter a Parcel ID or address and download or print a Flood Hazard Map.

Another customer service component provided by Floodplain Management includes performing field investigations in response to constituent complaints and concerns. Through these field investigations, Floodplain Management is able to ensure that property owners are not being adversely affected by improvements that they or their neighbors construct, and can provide advice regarding improvements to minimize potential flood damage. If non-compliant improvements are observed, Floodplain Management personnel will proceed with compliance enforcement actions.

Flood Protection Assistance
Public Service Announcements

In cooperation with the County Communications Office, the District produced a series of public service announcements (PSAs) intended to inform all County residents about the benefits of flood insurance and the risks posed by flash flooding, particularly to motorists. The 30 and 15-second PSAs feature District 2 Supervisor Ramón Valadez and each version was produced in English and Spanish to ensure the messages reached as wide an audience as possible.

Regular homeowners or business insurance policies do not typically cover losses caused by flooding. However, the federal government offers policies under the National Flood Insurance Program (NFIP), which are mandatory for all homes built in a federally-mapped Federal Emergency Management Agency (FEMA) floodplain and financed with federally-backed loans. Lenders pass the cost of the insurance requirement to the property owners. While not required for homes in locally mapped floodplains, the District recommends residents still obtain flood insurance. Currently, under the NFIP’s Community Rating System (CRS), the County is a Class 5 community, which allows residents to purchase flood insurance at a 25 percent discount. The PSAs are part of an ongoing effort to help the County qualify a Class 3 community, which would increase the discount to 35 percent.

Two of the PSAs focused on the dangers of flash flooding for motorists as a life was sadly lost on August 12, 2017 when a man was swept downstream on Old Nogales Highway after ignoring road closure barricades. The PSAs have been run on television and radio throughout the year and may be found on the County’s YouTube Channel and on the District’s website.
Last year the District upgraded its ALERT system software and launched a new publicly accessible website for displaying real or near real-time hydro-meteorological data for Southeastern Arizona. Precipitation, stream flow and other weather-related information produced by District ALERT stations and data generated by other agencies monitoring equipment are now just a few clicks away.

The new website presents our ALERT data more reliably and offers much more information to assist local communities, public safety agencies, researchers and the general public about current weather conditions. The website provides real-time data from the District’s 105 precipitation, streamflow and weather monitoring stations. In addition, the website can display weather and streamflow data from over 40 additional gaging sites run by partner agencies including the National Weather Service, U.S. Geological Survey, Arizona Game and Fish and Pinal, Cochise and Santa Cruz counties. The list of available cooperator sites continues to expand and new sites will be added as they become available.

The website’s main feature is a map display containing locations of gaging sites along with real-time displays of the data generated at those sites. The map display is built on a Google Maps structure that provides an easy to navigate, reasonably up-to-date map that can be viewed in either a Street or Terrain View, and can display satellite imagery. Additionally, current radar images (both static and animated) can be displayed on the map along with National Weather Service storm warnings, which appear on the map as a box outlining the affected area(s).

Our new system has two versions, one for desktops/laptops and another for mobile and small screen devices. The system for desktop/laptop computers operates better with Google Chrome than with Internet Explorer. The mobile device version is a slightly simplified version that provides most of the functionality of the full version. To access either of these two new map displays or to view the older system, which will continue to run for a period of time, please go to: http://webcms.pima.gov/cms/one.aspx?portalId=169&pageld=60223.

This year, District staff continued in-service training for personnel from the Sheriff’s Department, Office of Emergency Management, Rural Metropolitan Fire District, and Southern Arizona Rescue Association. Operationally this system is used to direct deployment of Pima County Department of Transportation maintenance crews as well as Sheriff’s deputies who erect barricades, monitor conditions and aid the public. We plan to continue to expand the program.
Hydraulic and Hydrology Studies

Each year, significant rainfall events occur within a watershed or watersheds in Pima County. Some years, these events occur over a broad enough area to trigger regional flooding such as in 2006. That year, the County received record rainfall events in June, July and August with 8.6 inches of rainfall—two inches more than the seasonal average. This resulted in significant flooding along the Sabino, Agua Caliente, Tanque Verde, Rillito and Pantano watercourses. In other years, these significant events impact smaller watersheds, such as in 2007 when numerous homes along the Valley View Wash flooded.

The District studies the hydrology and hydraulics of all these watercourses to identify lands prone to flooding from the 1% chance annual storm (100-year flood). District staff continues to develop floodplain mapping studies needed in the following foothills washes:

• Catalina Mountains Unnamed Wash #4
• Indian Hills
• Alamo Wash
• Upper Santa Cruz River RiskMap

These in-house studies utilized approved local, state and federal methodologies to determine discharge rates and floodplain limits and have, in most cases, been used to submit Letters of Map Revision for approval by FEMA. These studies use better topographic, hydrologic and hydraulic data than what was available when the original FEMA maps were created. Furthermore, these studies identified specific infrastructure including culverts, dip sections and bridges that may restrict flow. Notices have been sent to every impacted property owner. The notices specify whether property owners’ buildings or land have been determined to be in or out of the floodplain.

High-Resolution Land Cover Data

This project produced a one meter or better resolution land cover dataset. For many years, the District relied upon zoning class and habitat classification for several processes, which suffer when data is outdated or too low in resolution. This includes floodplain mapping as well as open space calculations used in the NFIP CRS. This data will also be useful to other agencies and programs.

Projected uses for the data include:
• Floodplain Modeling
• Green Infrastructure Site Planning
• FEMA CRS Recertification Inputs
• Open Space and Habitat Monitoring

The feature classes are:
• Water
• Irrigated Land
• Barren/Bedrock
• Structures
• Trees/Shrubs
• Desert/Grassland/Scrub
• Impervious
• Roads

A project area of 3,791 square miles was selected based on existing datasets, the developed area, and the County boundary. This area in eastern Pima County is 41% of the County, but excludes tribal lands, Why and Ajo, Arizona. The project was completed in March 2018.
Upper Santa Cruz RiskMAP Study

The purpose of the Upper Santa Cruz RiskMAP study is to identify flood risks along the Santa Cruz River within Pima County from the Santa Cruz County line north to Interstate 19. The Cooperative Technical Partnership first entered in August 2014, allowed for cost sharing between FEMA and the District to produce the RiskMAP data. Below is a sample product. All the depth maps including studies are available on the District’s website at:

http://webcms.pima.gov/cms/one.aspx?portalId=169&pageId=38373
This study highlights interjurisdictional efforts funded by the District. District staff worked closely with COT floodplain managers, and extensive stakeholder guided deliverables outlining future priorities for improving residential environments and economic development opportunities.

The study area includes several small watersheds that drain north to the Rillito River as well as the Ruthrauff Wash, which drains into the Santa Cruz River. The area is subject to frequent and substantial sheet flow and ponding of stormwater as a result of the minimal topographic relief and inadequate drainage structures. Historically, flood flows pond on the east side of the Union Pacific Railroad (UPRR) embankment. A lack of adequate drainage from the basin to the Santa Cruz River was highlighted repeatedly as the ultimate source of the problem. Some of the recommendations of the Ruthrauff Basin Study Volume 1, Volume 2, Volume 3 (CBA, 1983) have been adopted including a storm drain along Ruthrauff Road. However, there are still areas mapped as FEMA or local floodplains along the UPRR. Flooding in the area between Prince Road and Ruthrauff Road comes from both the Flowing Wells Wash and Ruthrauff basin. Flow overtops the channel and runs along the railroad to the northwest and combines with flow from the Ruthrauff basin. As part of the widening of Interstate 10, the drainage across the UPRR will be improved, which will provide an outlet for the water that ponds along the railroad during flood events.

This study developed a Ruthrauff Basin Management Plan, which identified flood hazard areas and drainage problems, and cost-effective solutions to alleviate or manage flooding in the project area. The plan incorporates all of the existing, new and proposed storm drains constructed along the railroad.
As bond, federal and state funding sources have dwindled, District activities have been increasingly focused on regulatory, management and maintenance activities. Implementing policy changes adopted in prior years, as well as managing lands controlled by the District, necessitate partnering with stakeholders including other departments, organizations and neighborhoods. In the past year, such partnerships have resulted in several significant accomplishments.

Volunteer Clean-Up Days at Paseo de las Iglesias
The Paseo de las Iglesias project was opened to the public in May 2015. This 1.5-mile section of erosion protection, river park and ecosystem restoration along the Santa Cruz River was a voter approved 2004 Bond funded project. When the District constructs large-scale flood control projects, such as Paseo de las Iglesias, the process includes need identification, planning, design, construction, mitigation, and maintenance. Maintenance of the river park amenities and day-to-day operation is performed by the Pima County Natural Resources, Parks and Recreation Department (NRPR), while the District retains maintenance on channel capacity, erosion control and overall guidance on the project, including any supplemental enhancement work. There were over 10,000 trees, shrubs and cactus planted within the project limits, and with a project site of approximately 400 acres, there are still areas that would benefit from further plantings and restoration work.

This year, District staff worked with local non-profit Ironwood Tree Experience and students from Salpointe High School on a two-day community service project at Paseo de las Iglesias. The students learned about the project and its plants while assisting with tasks ranging from trash removal in Mission View Wash to making, spreading seed balls, and removing invasive species.

Tesoro Nueve Ranch Acquisition
Some partnerships include multiple layers including County departments, ranchers, landowners, and local industries. In June, the Board voted 3-2 to acquire more than 3,200 acres of riparian habitat on the eastern slopes of the Catalina Mountains for future conservation. The Tesoro Nueve Ranch includes 1,476 acres of land and 1,807 acres of state grazing leases. The ranch, located in the San Pedro River watershed, is surrounded by conservation properties owned by the County, the District and the Coronado National Forest. The total purchase price was $1.55 million, with nearly $500,000 paid by the District and the balance paid by the County Administrator’s Special Revenue Fund at closing. That fund includes $1 million received from a 2014 Kinder Morgan mitigation agreement and can’t be used for purposes other than purchasing land for conservation. No general funds were used to acquire the property.

The property will be designated as part of the County parks system and managed by the NRPR. The land is an important riparian habitat with springs and streams that provide homes for vulnerable and threatened fish, frogs, birds and other wildlife.

The ranch is ideally situated to complete the reserve system in the San Pedro River watershed, which is anchored by the County’s A7, Six Bar and M Diamond ranches, and complemented by the existing District-owned Buehman Canyon Preserve. Because the acquisition boundaries run along the middle of Buehman Canyon, acquiring this property greatly simplified the management of this rare flowing stream. The property was part of the estate of Katheryne B. Willock, a noted archaeologist and a generous contributor to the University of Arizona Libraries, who died in January 2017.
Completed Capital Improvements

As shown on the annual completed Capita Improvements Program (CIP) list below, prior completion of bond funded projects resulted in a relatively short list this year. In addition, several projects described on the following pages are ongoing. Several projects closed this year, but were included in last year’s report as they were substantially completed.

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Completion</th>
<th>Expenditures</th>
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<tbody>
<tr>
<td>CFC.SAIRPO</td>
<td>FC - Airport Wash - Economic Development Zone</td>
<td>01/10/2018</td>
<td>$961,036.00</td>
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<td>CFC.SCDOLL</td>
<td>FC - CDO Pathway: La Cholla to La Canada</td>
<td>01/10/2018</td>
<td>$2,660,521.00</td>
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<td>CFC.SCDOTY</td>
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<td>01/10/2018</td>
<td>$2,038,586.00</td>
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<td>CFC.SJWKRP</td>
<td>FC - Julian Wash Kolb Rd Pathway Underpass</td>
<td>01/10/2018</td>
<td>$599,996.00</td>
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<td>CFC.STSR09</td>
<td>FC - Tesoro Nueve Acquisition</td>
<td>09/04/2018</td>
<td>$1,558,500.00</td>
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<td>CFC.SPWFLT</td>
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<td>02/01/2018</td>
<td>$8,307,094.00</td>
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<td>TOTAL</td>
<td></td>
<td></td>
<td><strong>$16,125,733.00</strong></td>
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</table>

As shown on the annual completed Capital Improvements Program (CIP) list below, prior completion of bond funded projects resulted in a relatively short list this year. In addition, several projects described on the following pages are ongoing. Several projects closed this year, but were included in last year’s report as they were substantially completed.

Flood Control River Park Projects

The County is developing The Loop shared-use path and river parks system. Capitol projects along the Cañada del Oro (CDO), Pantano and Julian Washes are integral parts of this system. Portions of the CDO Wash are low-lying undeveloped floodplain. Much of the land adjacent to these watercourses are currently owned by the District or is dedicated drainageway. The District wants to preserve this natural floodway for flood protection and for the valuable riparian habitat that currently exists, and to promote the County river parks system. Development of the river park will provide District staff with access to the watercourse’s and protection for maintenance, will allow utility companies to access for utility maintenance, provide recreational amenities, an alternate transportation corridor, and aid in the preservation and future restoration of these important floodplains area, which also include important riparian habitat. The Pantano Wash project described in more detail below is also exemplary of this approach.
Pantano Wash Bank Protection and River Park Project

In February 2018, the District along with its design consultant Psomas and contractor Borderlands, completed the Pantano Wash Bank Protection and River Park project. Funding for the $8.2 million project came from the District’s tax levy, a secondary property tax. Construction was completed under budget, saving $400,000. The project, located along the Pantano Wash between Fort Lowell Park and Tanque Verde Road provided:

- Bank protection along the banks of the Pantano Wash to protect from flooding and erosion hazards;
- Channel bed stabilization;
- River Park and passive recreational improvements that completed The Loop (a 131-mile urban paved pathway, alternative transportation and recreational system along the major watercourses and encompasses the Tucson metropolitan area);
- Protected riparian habitat within the existing flood prone lands;
- A new restoration area which utilized stormwater harvesting in a formerly degraded depression;
- Stormwater harvesting basins throughout the project;
- Reuse of onsite inert debris to create lizard habitat;
- Reuse of onsite inert debris and rejected cobble material for slope erosion protection; and
- Public art, sitting areas and interpretive signage.

The project closed the final gap in The Loop and received a “Project of the Year” honor from the Southern Arizona Branch of the American Public Works Association.

Airport Wash

The District is working on the Airport Wash Basin Management Study Phase 2 to identify the drainage and flooding hazards within the Airport Wash watersheds and develop alternatives to address those hazards. A basin management study is a comprehensive study that estimates flood and erosion potential for a watershed, maps watercourses, identifies existing and potential problems and develops preliminary solutions and standards for sound floodplain and stormwater management. Completion will facilitate economic development by reducing the need for developers to conduct costly engineering studies and by identifying needed public improvements. The initial effort consisted of collecting data to identify known flooding hazards and map floodplains. This included researching historical flooding data, drainage complaints, existing studies and current land use. The hydrology within the watershed has been revised to reflect current County standards. The floodplains within the areas currently mapped by FEMA have been revised to reflect current topography and the decreased discharges developed by the project. Non-FEMA washes greater than 500 cfs were also mapped for regulatory purposes. The team then formulated a floodplain management approach consisting of structural and non-structural alternative solutions to reduce or eliminate flooding hazards, which were further compared and evaluated to develop a set of preferred alternatives.
Alamo Wash Sediment Management

In April 2018, the District began the removal of approximately 5,000 cubic yards of sediment in the Alamo Wash where it meets the Rillito Creek just east of Swan Road. A buildup of sand at that spot has lowered the capacity of the wash to handle storm runoff. The project seeks to prepare the confluence ahead of the monsoon, which brings more than half of the Tucson area’s annual rainfall. In order to minimize impacts on riparian habitat, stands of desirable vegetation have been preserved while removing invasive species and other plant life that could contribute to flooding or hamper the District’s response. In addition, County-contracted herpetologists scoured the area and relocated dozens of lizards and other reptiles.

Santa Cruz River Sediment Management

The District took over maintenance responsibilities for the Santa Cruz River from the COT in 2014. A buildup of sediment over the last 30 years has significantly reduced the carrying capacity of the river, with over 10 feet of sediment buildup in some places. Each year the District removes sediment from impacted reaches. This year the focus was on Speedway Boulevard to Grant Road. The project’s goal is to increase capacity of the Santa Cruz River ahead of potential rain. Once sediment removal is complete, the District will monitor the river and perform minor maintenance work approximately every five years, depending on flood activity. “Lowering the level of the river bed will improve the channel’s ability to carry the significant amounts of runoff caused by the powerful storms we experience, in both the winter and during the Monsoon,” said project manager Colby Fryar. “We want to mitigate potential flooding during large storm events in neighborhoods such as Menlo Park, Barrio Hollywood and Barrio Kroger Lane and to protect bridges downstream.”

Crews preserved stands of desirable vegetation while removing invasive species and other plant life that could contribute to flooding or hamper the District’s response to emergencies or maintenance efforts. County-contracted herpetologists scour the area in advance to relocate lizards and other reptiles.
Floodprone Land Acquisition Program

The Floodprone Land Acquisition Program (FLAP) provides relocation assistance to property owners and allows the District to purchase flood-damaged land, whether it is improved property or vacant land. Specific criteria used to rank FLAP applications and determine eligibility include the extent of flood damage or severity of potential flood and erosion hazards on the property. The highest priority is given to improved properties that have or may suffer significant damage as a result of flooding.

This program is completely voluntary and is designed to assist property owners who are likely to experience or have experienced flooding that resulted in severe damage and flood hazards. The community also benefits from these acquisitions by increasing open space for overbank storage, enhancing groundwater recharge, and providing riparian habitat preservation, wildlife corridors, passive recreational opportunities and protection of cultural resources. The FLAP also protects emergency responders and County resources from harm by reducing potential rescue needs.

Additional grant monies to purchase floodprone and damaged properties became available following flood disasters because the County had established the FLAP.

In 1986, after voters approved General Obligation Bond sales of $20 million for floodprone land acquisition, a land acquisition plan was adopted by the Board. The plan outlined criteria to guide the District’s overall acquisition efforts and allow the dedication of tax levy revenues to be used for acquisition of floodprone lands. This newly adopted plan aided in the expansion of the program to include purchasing undeveloped land to prevent future floodplain development in sensitive riparian areas and to meet the open space goals of the community.

In fiscal year 2017/18, the District spent $765,448 and added 411.36 acres, including one 14.37-acre donation of land to the FLAP inventory, bringing the total of District-owned property to 13,303.43 acres at a cost of $69,999,664 since the program’s inception. These additions were in the Black Wash, Brawley Wash, Cañada del Oro, and Lee Moore Washes, Sabino Creek, San Pedro River and Tanque Verde Creek floodplains and habitat areas.
Financial Overview

Revenues
Although the District receives assistance from state and federal agencies to construct major capital facilities, over 98% of the District’s funding was generated from the property tax levy this year. General Obligation Bond sales are authorized by the electorate. Information on the District’s tax levy rate is shown on the table below.

Expenditures
The table on Page 19 provides information on CIP expenditures for projects completed during FY 2017/18. The remainder of the District’s 16 expenditures go toward debt service and operating expenses, which include funds allocated for maintenance of flood control structures, floodplain management, planning and administration activities.
Financial Highlights

Fiscal Year 2016/2017

Revenues
The primary source of revenue is the District’s secondary property tax levy of $0.3135 per $100 of real property assessed valuation. In FY 2017/18, the District received $22,907,225 in tax levy revenue. Other minor sources of revenue include interest, rent and reimbursements. The total revenue from all sources in FY 2017/18 was over $23 million.

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<tr>
<th>Revenue Source</th>
<th>Amount</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Property Tax</td>
<td>$22,907,225</td>
<td>97.0%</td>
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<tr>
<td>Rents &amp; Royalties</td>
<td>$66,304</td>
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<td>Payment In-Lieu of Taxes</td>
<td>$5,802</td>
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<tr>
<td>Fees</td>
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<tr>
<td>Interest</td>
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<td>Miscellaneous</td>
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<td><strong>Total</strong></td>
<td><strong>$23,652,509</strong></td>
<td><strong>100.0%</strong></td>
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The total expenditures for the District in FY 2017/18 were over $27 million. The CIP expenditures of over $8 million were direct capital expenses. The annual operating budget for the District was approximately $14.5 million. A recurring expenditure is our contribution to the Pima Association of Governments.

| Capital Improvements       | $12,208,306 | 44%   |
| Capital Equipment          | $147,326    | 1%    |
| **Total**                  | **$12,355,632** | **45%** |

Operating Budget
The District’s operating budget includes administrative, personnel, supplies, and service costs associated with Flood Control Support, Flood Prevention and Riparian Protection. Flood Control Support includes programs such as customer service, permits, public education and financial management. Flood Prevention includes maintenance, flood warning, emergency preparedness and enforcement activities. Riparian Protection includes environmental restoration, water resources and riparian habitat management programs.

<table>
<thead>
<tr>
<th>Budget Category</th>
<th>Amount</th>
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<tbody>
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<td>Personnel</td>
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<tr>
<td>Operating</td>
<td>$7,498,353</td>
<td>49%</td>
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<tr>
<td>Capital Equipment</td>
<td>$147,326</td>
<td>1%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$15,236,902</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Coordination with other Agencies

Pima County Department of Transportation

The District contracts with Pima County for services from divisions within the Department of Transportation:

- Field Engineering Division
- Maintenance Operations Division
- Real Property Division
- Technical Services Division
- Administrative Services Division

Other Pima County Departments

The District cooperates with other Pima County Departments on various projects and exchanges information as needed:

- Pima County Attorney’s Office
- Development Services Department
- Department of Environmental Quality
- Health Department
- Natural Resources, Parks and Recreation Department
- Tucson-Pima County Office of Emergency Management
- Regional Wastewater Reclamation Department (RWRD)

Local Governments

The District has entered into intergovernmental agreements to provide specific flood control or floodplain management services to, or to jointly fund flood control activities with, the following:

- City of Tucson
- City of South Tucson
- Town of Oro Valley
- Town of Marana
- Town of Sahuarita

Pima Association of Governments (PAG)

PAG facilitates coordination among local government agencies, including the District, on environmental matters affecting the community.

State Agencies

The District coordinates activities with the following state agencies:

- Arizona Department of Water Resources
- Arizona Department of Environmental Quality
- Arizona Game and Fish
- Arizona State Land Department

Federal Government

Several federal agencies participate in local flood control projects, as listed below:

- U. S. Army Corps of Engineers
- Federal Emergency Management Agency
- Federal Highway Administration
- U. S. Bureau of Reclamation
- U. S. Natural Resource Conservation Service
- National Weather Service
- U. S. Geological Survey
- U. S. Fish and Wildlife Service

Nongovernmental Organizations

Other nongovernmental agencies that the District works with include:

- The Nature Conservancy
- Cortaro-Marana Irrigation District
- Central Arizona Water Conservation District
- Metropolitan Domestic Water Improvement District
- University of Arizona
- Watershed Management Group