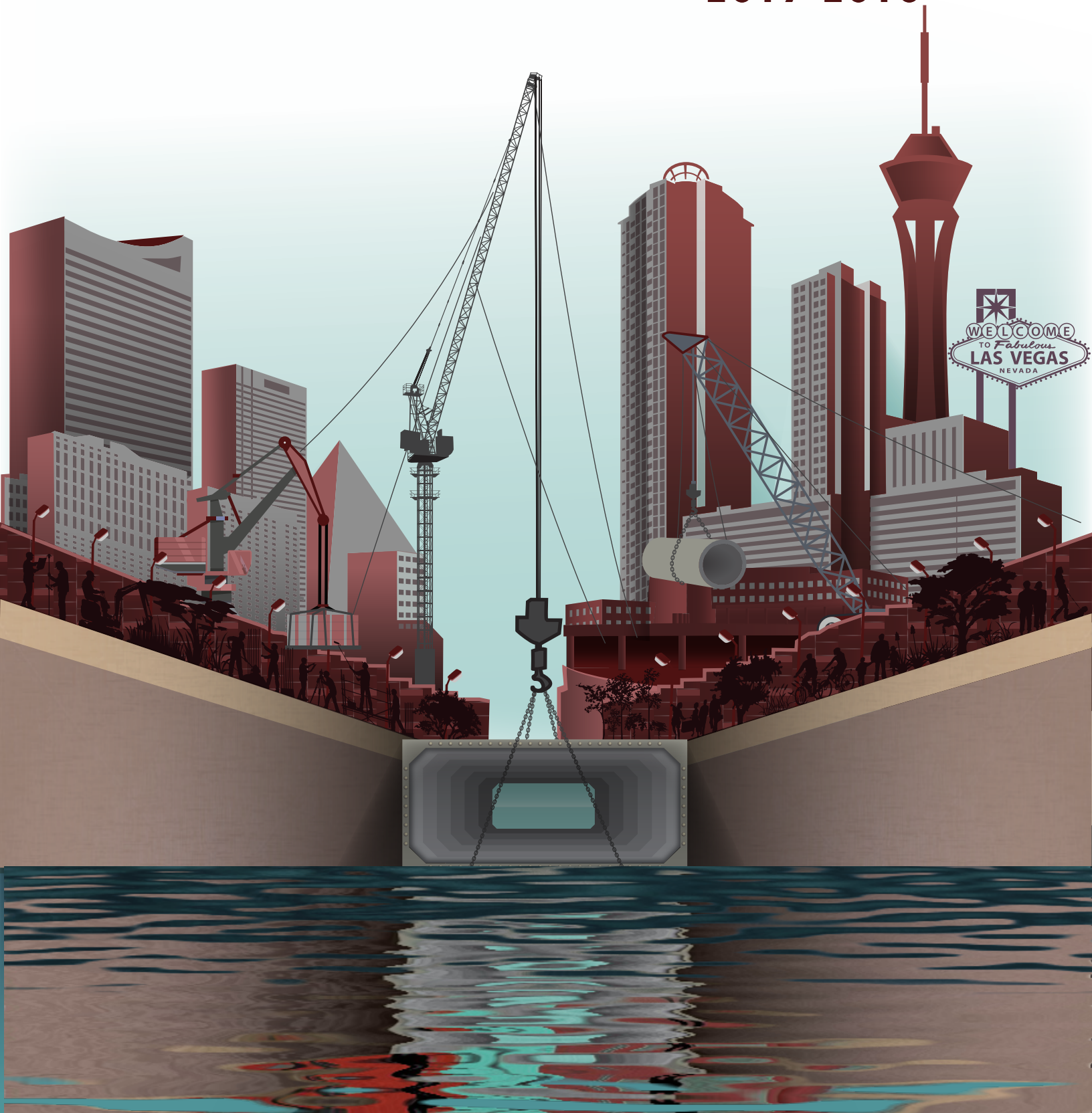


REGIONAL FLOOD CONTROL DISTRICT
ANNUAL REPORT
2017-2018



CLARK COUNTY, NEVADA

MISSION

To improve the protection of life and property for existing residents, future residents and visitors from the impacts of flooding while also protecting the environment.

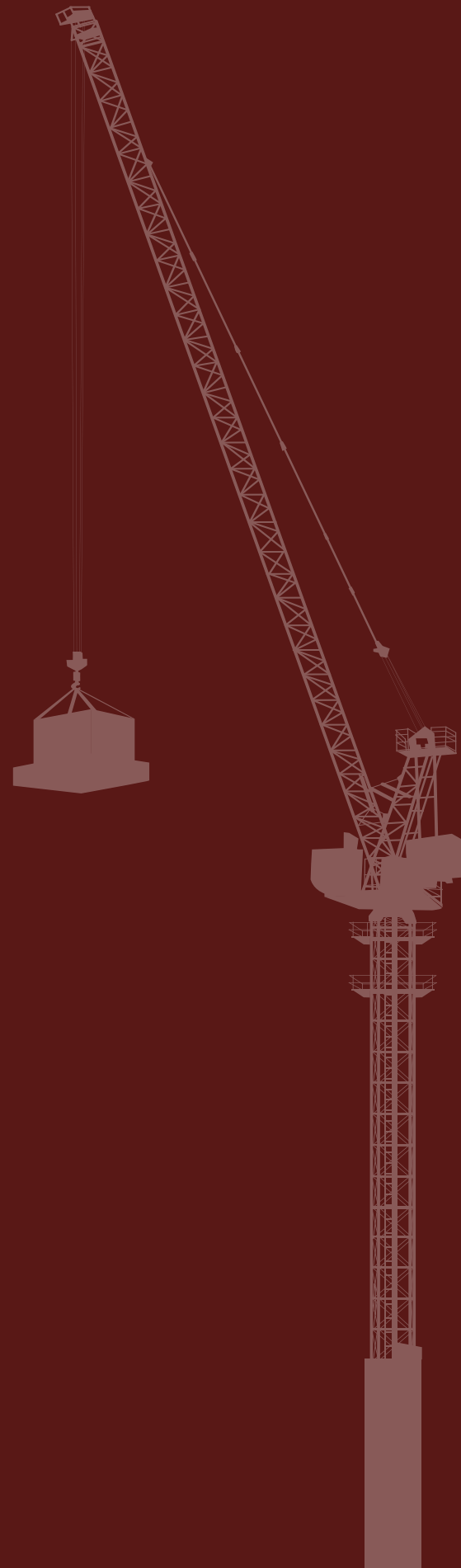
VISION

Premier regional agency providing a community safe from the devastation of floods while protecting the surface water environment.



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DISTRICT MESSAGE

Residents who have called Clark County home for a while tell stories of flash floods they have seen or areas that used to always flood. They use past tense to describe vast portions of the county that are now safer thanks to the progress the District makes each year – and has made every year for the past three decades. This report highlights just a small snapshot – one year in time – of our overall commitment to keeping the residents of Clark County safe from floods. It is a dedication that remains as steadfast today as when the District was created.

Since our inception in the late 1980s, approximately 619 miles of channels and underground storm drains and 93 detention basins have been built. Currently there are 18 funded projects totaling \$113.79 million. Each mile of our system completes another piece of the master plan and provides real protection to residents throughout Clark County.

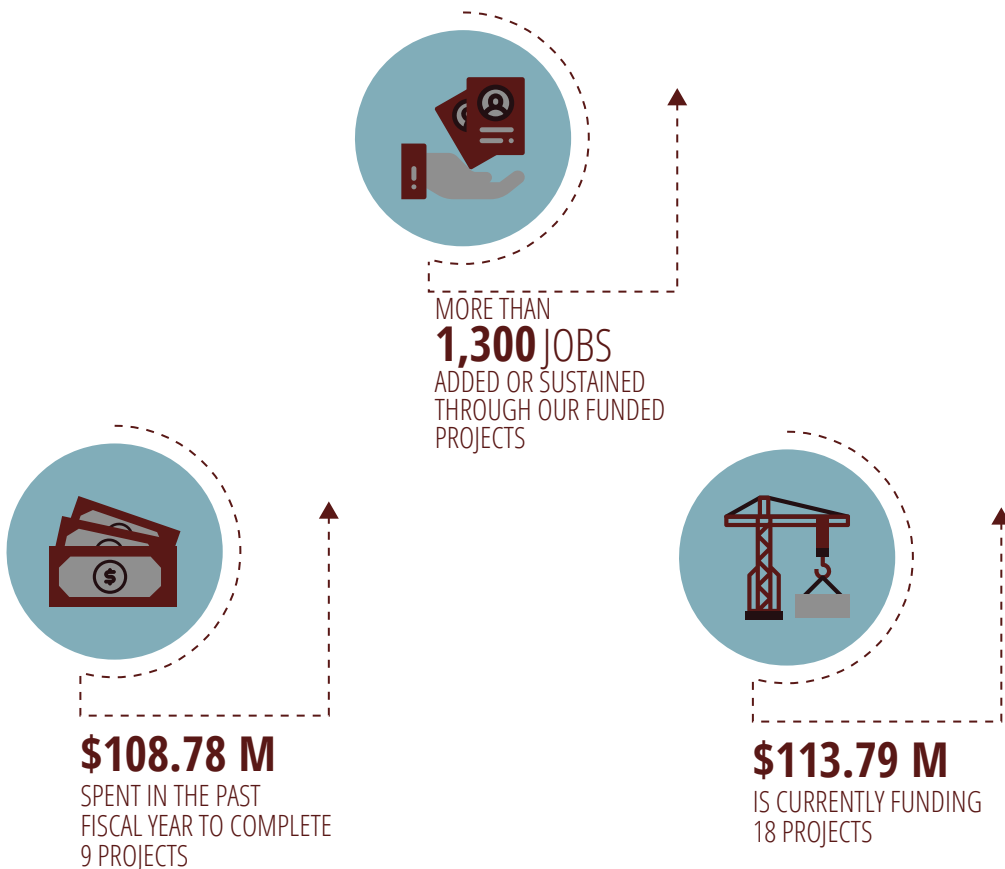
As of June 2018, there are several projects under construction. The projects are as different as box culverts under US-95 in northwest Las Vegas, the Pittman Horizon Ridge Detention Basin in Henderson

and a storm drain project in Searchlight.

To date, the Regional Flood Control District's progress has removed 54 square miles of federally-designated flood zone areas. Each time a FEMA flood zone is removed, residents save substantial amounts on flood insurance. Each project puts Southern Nevadans to work. Our current funded projects create or sustain more than 1,300 jobs, each one adding muscle to the local economy.

In the past year we completed nine projects totaling \$108.78 million ranging from installing more than a mile of large box culverts under Las Vegas Boulevard to building a levee along the Muddy River in Logandale.

The District has funded nearly \$2 billion on flood control over the past three decades, protecting our residents, visitors and infrastructure. Throughout those years, we have remained committed to regional partnerships with member entities and outside agencies. This regional approach, along with a talented and dedicated staff, will help the Regional Flood Control District continue to meet the challenges ahead.



BOARD OF DIRECTORS

AS OF JUNE 2018

The Clark County Regional Flood Control District is governed by a Board of Directors consisting of eight members. The Board serves as a policy-making body and employs a General Manager/Chief Engineer to serve as executive officer.



LAWRENCE L. BROWN III
Chairman | Commissioner

Clark County



DEBRA MARCH
Vice Chairman | Mayor
City Of Henderson



CHRIS GIUNCHIGLIANI
Commissioner

Clark County



JOHN LEE
Mayor
City Of North Las Vegas



DAVID BALLWEG
Councilman

City Of Mesquite



CAROLYN GOODMAN
Mayor
City Of Las Vegas



DR. LOIS TARKANIAN
Mayor Pro Tem

City Of Las Vegas



ROD WOODBURY
Mayor
City Of Boulder City



AUTHORITY OF THE DISTRICT

The Nevada Legislature authorized the creation of the Regional Flood Control District in 1985 to:

- Develop a coordinated and comprehensive Master Plan to solve flooding problems
- Review development in flood hazard areas
- Fund and coordinate the construction of flood control facilities
- Develop and contribute to the funding of a maintenance program for Master Plan flood control facilities

The District also provides public education regarding flood dangers and monitors rainfall and flow data during storms, disseminating information to appropriate public works agencies and safety crews.

The service area for the District is:

- Unincorporated Clark County
- Las Vegas
- Henderson
- North Las Vegas
- Boulder City
- Mesquite

The District is governed by a Board of Directors including two representatives each from Clark County and the City of Las Vegas and one representative each from Henderson, North Las Vegas, Boulder City and Mesquite. Public meetings are generally held on the second Thursday of the month, at which time the Board acts on policy and other flood control matters.

The Board annually elects a chairman and a vice-chairman from among its members. The General Manager/Chief Engineer is responsible for surveying, investigating, reporting and estimating the extent of flood control problems and for presenting flood control recommendations to the Board.

The Regional Flood Control District is a distinct local governmental agency. The District contracts with Clark County for various legal and administrative services provided by departments such as the Comptroller, District Attorney, General Services, Human Resources, Information Systems and Treasurer.



Board Chairman Larry Brown and General Manager Steven Parrish



ADVISORY COMMITTEES

TECHNICAL ADVISORY COMMITTEE AS OF JUNE 2018



Pictured from left to right: Joseph R. Leedy, Travis H. Anderson, Scott P. Hansen, Jennifer Doody, Joe A. Yatson, Robert Herr, David Bowers

The Technical Advisory Committee (TAC), the representation of which mirrors that of the Board of Directors, holds public meetings. They advise the District's Board of Directors on technical matters. The current members include local public works directors, city engineers and an assisting planning director. The General Manager/Chief Engineer (serving as the Executive Director of the committee) and a representative of the Citizens' Advisory Committee are both non-voting members of the TAC.

MEMBERS

Chairman Scott P. Hansen	Director of Public Works, Boulder City
Vice-Chairman Denis Cederburg	Director of Public Works, Clark County
Travis H. Anderson	City Engineer, Mesquite
Jennifer Doody	Director of Public Works, North Las Vegas
Robert Herr	Director of Public Works, Parks and Recreation, Henderson
Mike Janssen	Director of Public Works, Las Vegas
Ebrahim Juma	Assistant Planning Manager Water Quality, Clark County Water Reclamation District
Allen E. Pavelka	City Engineer, Las Vegas

ALTERNATES

Dale Daffern	Engineering Manager of Construction Service Division, North Las Vegas
Thomas E. Davy	City Engineer, Henderson
Michael Hudgeons	City Traffic Engineer, North Las Vegas
Jim Keane	City Engineer, Boulder City
Oh-Sang Kwon	Engineering Project Manager, Las Vegas
Jeremy Leavitt	Engineering Program Manager, Las Vegas
Joseph R. Leedy	Principal Planner, Clark County Water Reclamation District
Ed McGuire	Assistant Director of Public Works, Parks and Recreation, Henderson
Richard Secrist	Development Services Director, Mesquite
Robert Thompson	Deputy Director of Public Works, Clark County
Joe A. Yatson	Manager, Design Engineering Division, Clark County



CITIZENS' ADVISORY COMMITTEE AS OF JUNE 2018



Picture from left to right: Kyle J. Stephens, Karina Barragan, J. William Starmer, Ronald Newell, Jennifer L. Taylor, Harshal Desai, Norman Ashford and Larry Schultz

The Citizens' Advisory Committee (CAC) holds public meetings and is composed of one citizen appointed by each city council and the county commission included in the District, and of one citizen appointed by each Board member. The CAC was created to represent public interest and to advise the Board on various flood control matters of importance to the general public.

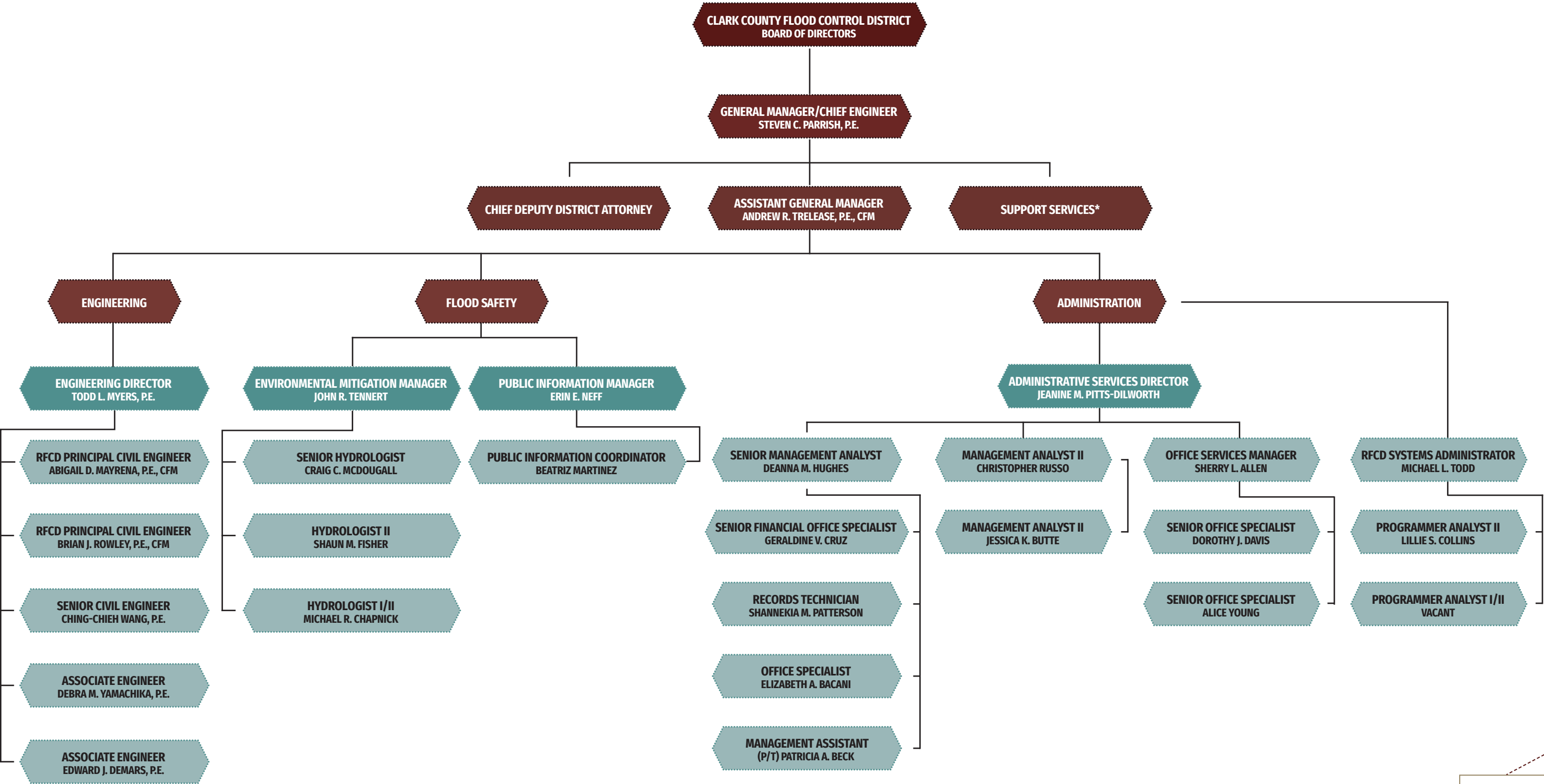
MEMBERS

Chairman Larry Nelson	Henderson
Vice-Chairman Ronald Newell	Clark County
Norman Ashford	Mesquite
Karina Barragan	North Las Vegas
Harshal Desai	Henderson
Shawn Fleming	Boulder City
Jason Gross	Boulder City
Terrence P. Kane*	Las Vegas
Michael Kelly*	North Las Vegas
Cathy Littlefield*	Clark County
Shawn Meagher	North Las Vegas
Scott Ruedy*	North Las Vegas
Larry Schultz	Clark County
J. William Starmer	Las Vegas
Kyle J. Stephens	Las Vegas
Jennifer L. Taylor, Esq.	Clark County

*Terms ended during FY 2017-18



ORGANIZATIONAL CHART



*The District contracts with Clark County for services from several county departments including Enterprise Resource Planning, Comptroller, District Attorney, Finance, Purchasing, Human Resources, Risk Management and the Treasurer, as authorized by statute.



ABOUT OUR REGION

Clark County is a strong driver of the state's economy drawing 35 million tourists* in 2017 to the glitz of the Las Vegas Strip and the natural wonders that stretch out over 8,100 square miles. The county is larger in area than three U.S. states and nearly as large as a fourth – New Jersey.

A steadily increasing economy and booming housing market continue to lure developers, new residents, and visitors to the area.

A stadium for the National Football League's Raiders is rising from the desert, adjacent to the Las Vegas Strip. The Vegas Golden Knights vied for the coveted Stanley Cup in their inaugural season, and casinos are planning major developments up and down Las Vegas Boulevard.

Sales tax revenue continues to climb with visitors pouring nearly \$60 billion* into the Southern Nevada economy last year. Once again cranes dot the skyline in Las Vegas, from major public infrastructure to new casino developments. The growth is not just limited to business and infrastructure. Clark County's residential growth was second in the nation last year.



35 MILLION
Tourists in 2017



Cranes dot
THE SKYLINE
in Las Vegas



A stadium for the
RAIDERS
rising from the desert

* Source: Las Vegas Convention and Visitors Authority

MONITORING THE WEATHER

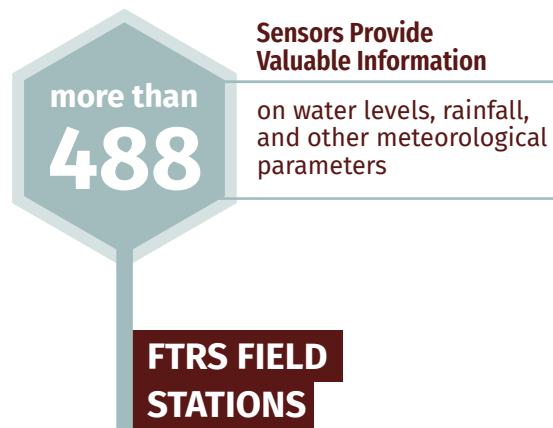
The District, in cooperation with the U.S. Geological Survey (USGS) and the National Weather Service (NWS), began implementing a Flood Threat Recognition System (FTRS) throughout Clark County in 1987. The system includes a network of strategically located field stations that automatically report data from more than 488 hydro-meteorological sensors in real-time to computerized base stations operated by each of the cooperating agencies.

The FTRS provides valuable information on water levels, rainfall, and other meteorological parameters. Rain gauges automatically report after each 0.04-inch accumulation of rainfall to the FTRS base stations, allowing for the evaluation of rainfall intensities in real time. Humidity sensors alert NWS forecasters when summer monsoonal moisture is sufficient to trigger thunderstorms. Information on wind speed and direction helps the NWS track severe storms in the Clark County area and issue more timely, site-specific weather statements than were previously possible. The District's fully automated base station notifies staff, both in and out of the District's offices, of potentially dangerous situations. District staff can assess the potential for flooding, then provide information to public works staff, and other emergency response personnel, as necessary.

While more than two thirds of the FTRS field stations are located in the Las Vegas Valley, other gauges installed in Laughlin, Searchlight, Jean, Primm, Goodsprings, Mesquite, Bunkerville, Moapa Valley, Coyote Springs, CalNevAri, Indian Springs, the Carpenter 1 Burn Area, and on the Moapa River Indian Reservation allow emergency responders to monitor weather conditions throughout Clark County.

In addition to the field stations described above, the District also captures real-time data from 47 field stations operated and maintained by either the National Park Service or Mohave County, Arizona. The District can collect and use the information provided by all of these sites, and as a result, is able to expand the weather monitoring network and keep an eye on weather systems along the Colorado River and in western Arizona at minimal cost.

The information provided by the FTRS system helps emergency response agencies to more efficiently direct their limited resources. The District provides the public and the media with access to the FTRS data, both current and historical, through the District's website (www.regionalflood.org). Reports detailing significant flood events of the past can also be found here.



HISTORY OF FLOODING

For more than 100 years, the dry, hot region of Clark County has experienced periods of intense rainfall and subsequent flash flooding. In a special report entitled "History of Flooding, Clark County, Nevada 1905-1975," the U.S. Soil Conservation Service documented 184 different flooding events that resulted in damages to private property and public facilities. Since 1960, the area has experienced at least 12 floods that resulted in more than \$1 million in property damage. In that same period, 33 lives were lost in 22 separate flash flood events.

While floods can and have occurred in almost every month of the year, the most damaging storms typically occur between July and September. During these hot summer months, moist, unstable air, usually from the Gulf of Mexico or the Gulf of California, is rapidly forced upward by hot air currents. The dynamics of this process often

result in spectacular displays of lightning in the desert sky. Too often, they also cause severe thunderstorms with intense rainfall on steep mountain slopes and armored desert surfaces. The rainwater runs off rapidly and concentrates in the urbanized areas at lower elevations.

Flood events adversely impact the local economy through loss of business at commercial establishments due to decreased access. Furthermore, flooding in the Las Vegas Valley can become national news and deter tourists from visiting the area.

The average rainfall in the Las Vegas Valley is 4.19 inches, and this amount is nearly equally divided between summer and winter rainy seasons. For the one year period ending June 30, 2018, the NWS measured a total of 2.77 inches. However, any one point in Clark County is not necessarily representative of the entire area.



**SINCE 1960
CLARK COUNTY HAS
EXPERIENCED
12 FLOODS**



**THAT RESULTED
IN MORE THAN
\$1M
IN PROPERTY
DAMAGE**



**33
LIVES WERE
LOST**

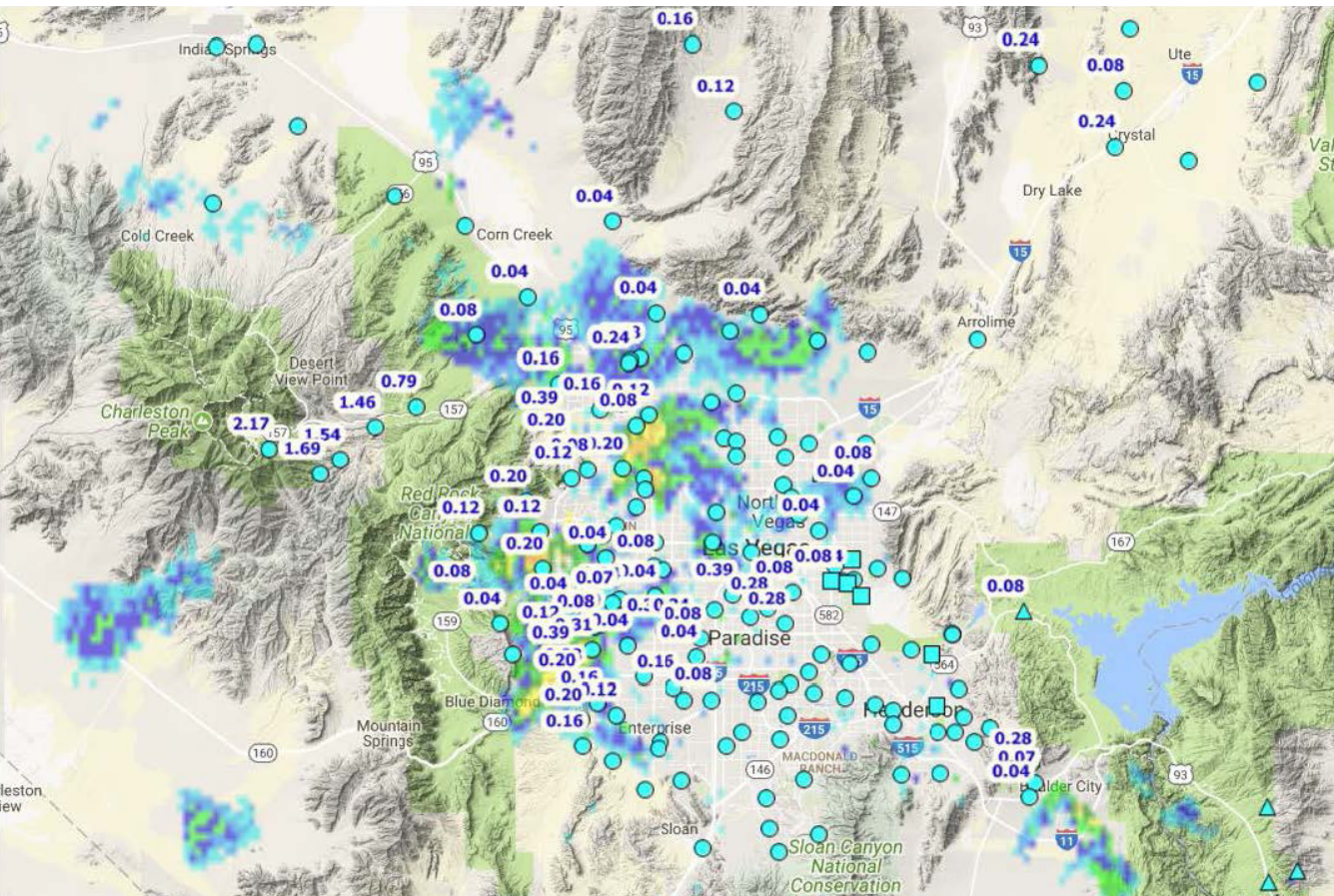


**22
SEPARATE FLASH
FLOOD EVENTS**

SIGNIFICANT FLOOD EVENTS

The period July through September is considered “monsoon season” for Clark County, as this typically means conditions are ripe to create thunderstorms. On August 4, 2017, the NWS weather radar was unavailable in the early afternoon. Even without radar the District’s gauge recorded rainfall exceeding two inches in Rainbow Canyon and by the Mount Charleston Fire Protection District, creating runoff conditions in the area. By 1 p.m., storms began developing west

of Las Vegas Boulevard between Sahara Avenue and Russell Road and quickly moved to the east-northeast. The District’s rain gauges in the area reported approximately 0.50 inches; although slightly higher rainfall amounts could have occurred between gauges. Clark County firefighters and citizens made multiple rescues of people within the Flamingo Wash. Tragically, county fire officials recovered one person who drowned in the wash.



KEEPING THE COMMUNITY INFORMED

PRESENTATIONS TO
MORE THAN
10,000 STUDENTS

FLOOD CHANNEL
TV SHOW OF DISTRICT
PROGRAMMING

**ANNUAL PRESS
CONFERENCE**
HIGHLIGHTING
THE DANGERS OF
FLASH FLOODING

PROCLAMATIONS
WITH **SAFETY
MESSAGES**

**DIGITAL AND SOCIAL
MEDIA** OUTREACH

PAID
ADVERTISING
CAMPAIGN



ENHANCING INFORMATION SYSTEMS

The information systems group at the Regional Flood Control District provides information technology solutions to both District staff and the general public. The District spent this past year gearing up for a

sweeping change in its network technology. This change will allow the District to continue providing access to engineering information, rainfall and weather data, and the award-winning GIS.

KEEPING OUR WATERS CLEAN

In cooperation with Clark County and the cities of Henderson, Las Vegas and North Las Vegas (collectively Permittees), the District is responsible for developing and implementing a comprehensive stormwater quality management program for the Las Vegas Valley. Stormwater that falls in the Las Vegas Valley travels untreated to the Las Vegas Wash and Lake Mead, the valley's primary drinking water source. As a result, it is essential to make sure the stormwater that reaches Lake Mead is as clean as possible. The Permittees are required to implement a variety of monitoring requirements and compliance actions designed to protect Las Vegas Wash and Lake Mead from stormwater pollution. These activities include: inspecting industrial and construction sites to make sure that pollutants do not come in contact with stormwater; detecting and illuminating illegal spills and dumping; and performing public outreach.

Residents can help prevent stormwater pollution by reporting the improper disposal of chemicals and pollutants into the storm sewer system. Clogged storm drains and washes, littered with debris, often

cause pollution in addition to flooding problems. The District has developed a comprehensive public outreach program to educate the public about the importance of not polluting our desert environment. Public service announcements have been created that identify behaviors residents can practice to help protect Lake Mead. The public outreach program encourages residents to report clogged storm drains, fertilize appropriately, properly dispose of pet waste and use commercial car washes. District staff also gives presentations to groups interested in environmental topics associated with flood control and stormwater management. Annual reports of stormwater quality compliance activities are available on the District's website at www.regionalflood.org and www.lvstormwater.com. These sites also provide valuable information about stormwater quality, describe proper use and disposal of household chemicals and fertilizers and help educate the community about how to improve the quality of urban runoff that travels untreated to Lake Mead.



FLOODPLAIN MANAGEMENT

The elements of a comprehensive floodplain management program include master planning, environmental and flood insurance regulations, the community rating system, land development reviews, floodplain mapping and drainage standards. The

following sections briefly describe each of these categories being utilized by the entities and the District, as well as the milestones accomplished in fiscal year 2017-2018.

MASTER PLANNING

Master Plans include locations, descriptions, and cost estimates of the proposed flood control facilities. Typical facilities are detention basins, channels, bridges, and storm drains. Master plans for all areas of Clark County are updated every five years. The

master plan updates for Bunkerville and Mesquite were completed and adopted in December 2017. The next areas scheduled for a master plan update and adoption are the Las Vegas Valley and Boulder City in 2018, and the Outlying Areas of Clark County in 2019.

FULFILLING ENVIRONMENTAL REGULATIONS

Throughout its history, the District has nurtured its relationships with the U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers and other resource management agencies. The District continues to assist local governments in their efforts to obtain rights-of-way and environmental permits from regulatory agencies. The Clean Water Act requires a federal permit for the deposition of fill material in “waters of the United States.” Fill material includes channel armoring, (e.g., concrete and rock lining) as well as detention basin embankment materials. Permits for projects

which include these types of activities often require some form of mitigation to compensate for adverse impacts to waters of the United States. Identifying acceptable mitigation projects is one of the most significant challenges facing the District. In the past year, the District has hired a consultant to help identify specific mitigation projects and sites so construction of drainage facilities protecting life and property can move forward without delays. The District is also working with the U.S. Army Corps of Engineers to obtain a new Regional General Permit to help expedite the District’s permitting process.



**December
2017**

Master Plan Updates

for Bunkerville and Mesquite were completed and adopted

2018

Master Plans for the Las Vegas Valley and Boulder City are scheduled to be adopted



REGULATORY PROGRAM

The National Flood Insurance Program (NFIP), administered by the Federal Emergency Management Agency (FEMA), has established rules and requirements to address the diverse issues that encompass flood insurance and flood hazard mitigation. Clark County and the incorporated communities within the county have adopted the revised Uniform Regulations for the Control of Drainage per state statutes. These regulations are designed to protect the health, safety, and welfare of residents within the community from the hazards associated with flooding. The regulations provide the minimum regulatory control necessary to:

- Require safe flood-prone area development
- Foster sound development policies and construction procedures
- Reduce the risk of storm water runoff damage to public and private property

By meeting and exceeding the NFIP requirements, the regulations ensure that all residents of Clark County and incorporated areas are eligible for flood insurance that is available from the federal government. Additionally, all participating communities are eligible for a higher federal match for disaster assistance in the event of a catastrophic flood.

- Promote comprehensive floodplain management

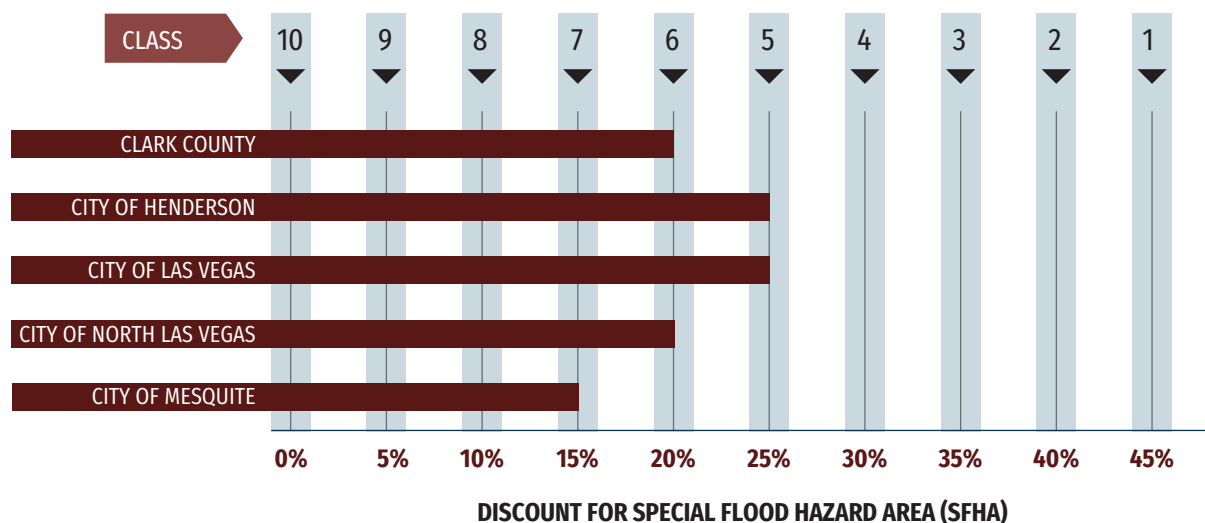
THE COMMUNITY RATING SYSTEM

Initiated in 1990, the Community Rating System (CRS) reduces flood insurance premiums for structures located in a special flood hazard area to reflect those community activities that are above and beyond the NFIP's minimum standards. The objective of the CRS is to reward insured residents for their community's extra efforts in floodplain management, as well as to provide an incentive for new flood protection activities.

Nationwide as of June 2017, there were over 22,000 communities participating in the NFIP. Of those, 1,444 community flood management programs are recognized by CRS verification audits. Clark County, the City of Henderson, the City of Las Vegas, the City of North Las Vegas, the City of Mesquite

and the City of North Las Vegas were among the communities to realize a 15 to 25 percent reduction in flood insurance premiums as a result of these audits.

These entities received credit for the District's public information programs, maintenance activities, remapping efforts and the Flood Threat Recognition System. In addition, the District's Master Plan, Hydrologic Criteria and Drainage Design Manual and the Uniform Regulations for the Control of Drainage serve as the foundation of a higher regulatory standard that has been recognized by CRS auditors as one of the most comprehensive in the nation.



LAND DEVELOPMENT REVIEWS

The District performs land development reviews to ensure compliance with the Uniform Regulations for the Control of Drainage and the District's Hydrologic Criteria and Drainage Design Manual, both adopted under state statutes. The entities are responsible for the review and approval of all drainage plans and studies within their jurisdiction. The entities must submit development proposals to the District for review if the development impacts the implementation

of the Master Plan or lies within a Special Flood Hazard Area. Per District Policies and Procedures, staff will commence review once the entity approval is obtained for the pending studies. This past year, the District reviewed 197 studies and 351 addenda related to the development of private properties deemed to have regional flood control significance. Reviews by the District resulted in the issuance of 210 concurrence letters and 32 related comment letters.



FLOODPLAIN MAPPING

All six local governments plus one Indian tribe (Fort Mojave) in Clark County are currently participating in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP). In participating communities, all residents are eligible for federal flood insurance whether they live in a high hazard flood zone or not. To participate in the NFIP, communities must adopt flood hazard maps prepared by FEMA and floodplain regulations in compliance with FEMA's minimum requirements. It is the District's objective to reduce flood risks to people and property by implementing the Flood Control Master Plan. As part of the District's ongoing effort to improve the accuracy of FEMA's flood insurance rate maps and take credit for completed flood control facilities, periodic restudy of flood hazard areas is required. Many areas have already been restudied resulting in the removal of over 54 square miles (34,560 acres) from identified 100-year flood zones. Assessment of flood hazards with the latest technologies was published by FEMA on November 16, 2011, for Las Vegas Wash from I-15 to Lake Las Vegas and the Muddy River at Logandale. This resulted in the addition of approximately 1,900

properties affected by Special Flood Hazard Areas (SFHA). The Las Vegas Wash project through the Club at Sunrise Golf Course (formerly Desert Rose Golf Course) was completed from Sloan Lane to Nellis Boulevard on the Las Vegas Wash and from the confluence to Nellis Boulevard on the Flamingo Wash. The completion of these facilities allowed FEMA to remove approximately 1,400 parcels from the SFHA in September 2016. Many of these parcels contained residential houses situated in the area around the newly constructed golf course. The final phase of the project from Nellis Boulevard to Stewart Avenue was completed in December 2017. The Letter of Map Revision (LOMR) to remove additional structures from the flood zone is currently in process with FEMA. Construction of the Muddy River Logandale Levee project started in the beginning of 2017 and was completed in February 2018. The LOMR is also currently in process with FEMA.

The District will continue to work closely with the entities and FEMA to further the restudy efforts. Detailed flood hazard information is available to the public on the District's website.



DRAINAGE STANDARDS

The District and the entities adopted the Hydrologic Criteria and Drainage Design Manual (the Manual) in 1990, which presents drainage standards and criteria for the Clark County area. It provides uniformity in drainage planning and design within the District's

service area, improves the urban environment and provides a sound basis for the expenditure of future private, public and regional funds. The Manual is used by governmental designers and reviewers and consulting engineers.

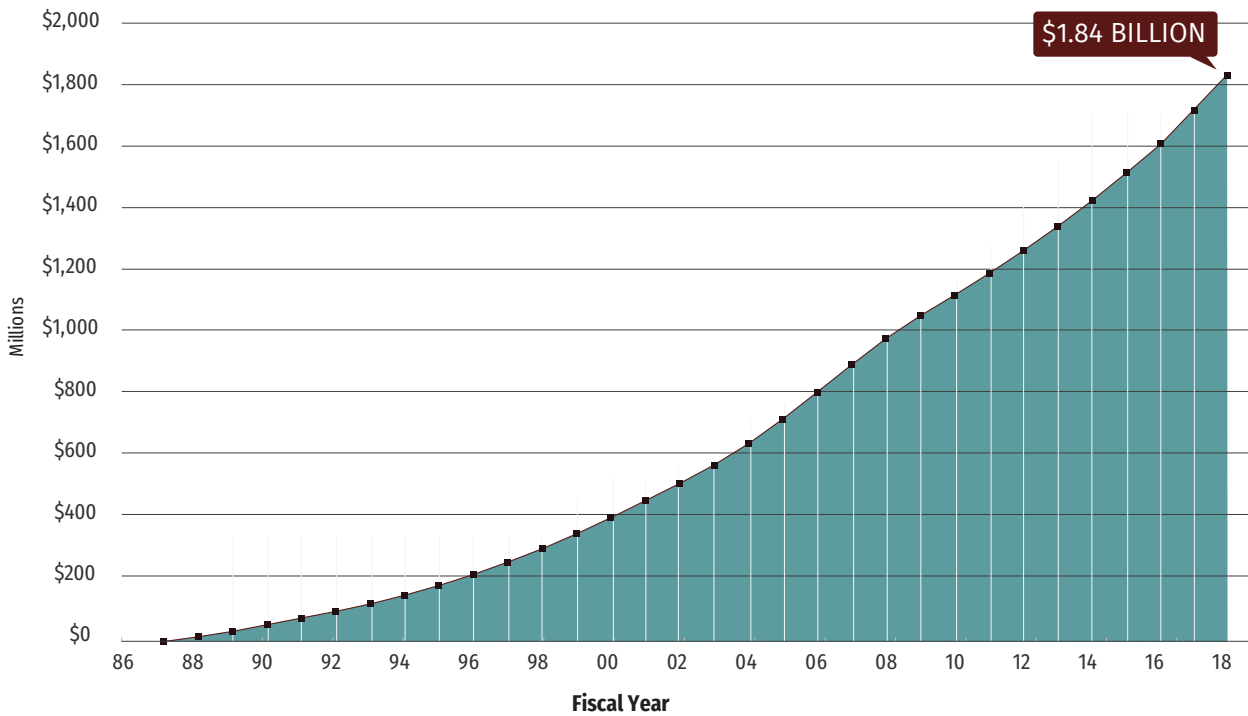


DEMONSTRATING FISCAL INTEGRITY

In 1986, Clark County voters approved a one-quarter of one percent sales tax increase to fund flood control improvements. The sales tax increase became effective in March 1987, and the first sales tax revenues were received in May 1987. Sales tax revenue for the fiscal

year 2017-2018 is expected to total \$102.1 million, a 3.1 percent gain over the prior year (2016-2017). The District views this as a continuation of an improving local economy and a long-term upward economic trend for Southern Nevada.

TOTAL REVENUES DERIVED FROM SALES TAX SINCE 1987



Traditionally the driving force in the Southern Nevada economy has been the tourism and hospitality industry. It supports more than 40 percent of jobs in the region and generates nearly \$10.0 billion in gaming revenue to Clark County's economy. Growth in tourism and hospitality have helped sustain the state's economic growth in the last few years. The direct economic impact of tourism, including accommodations, transportation, entertainment and attractions, positively influences the District's revenue. As a result, we expect sales tax revenue to increase next year to \$105.3 million.

More than 90 percent of sales tax revenue continues to be used to design, build and maintain flood control projects and pay for the associated debt service. Remaining sales tax revenue is used for salaries and benefits, professional consulting contracts, and other administrative costs.

During fiscal year 2017-2018, the District expended approximately \$123 million for flood control projects,

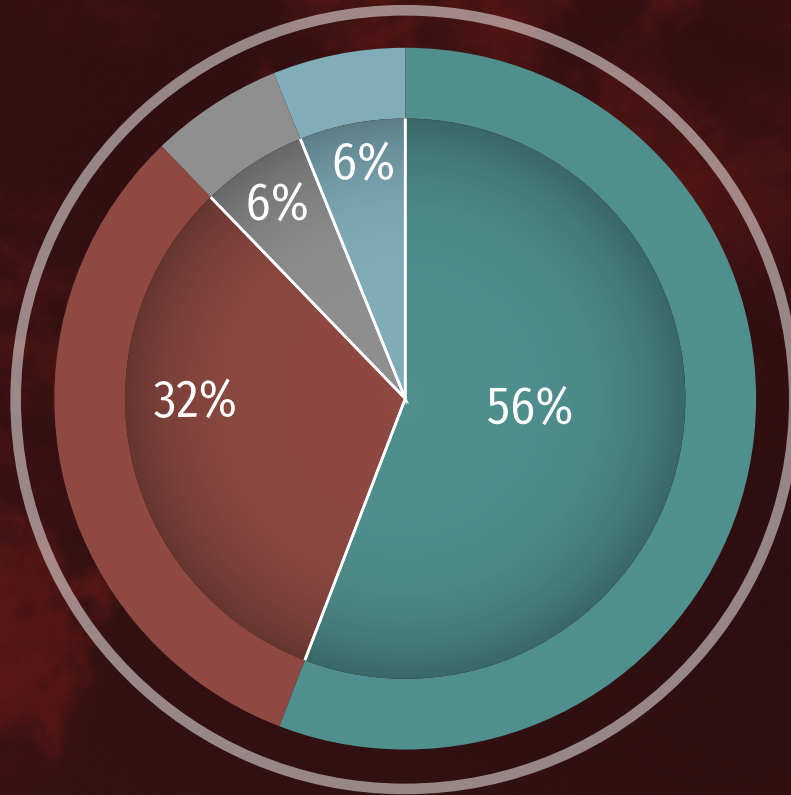
debt service, and flood control maintenance and \$7.1 million for administrative costs. Approximately \$2 billion in flood control improvements have been designed and constructed since the District's inception through Clark County.

The District has been awarded the Distinguished Budget Presentation Award by the Government Finance Officers Association of the United State and Canada every year for the past 24 years. The award represents a significant achievement by the District and reflects the District's commitment to meet the highest principles of governmental budgeting.

Annually, the District continues to receive favorable audit opinions indicating the District's financial statements are presented fairly in all material respects. These positive opinions inform stakeholders the District is following proper accounting principles and procedures.



HISTORICAL ANNUAL EXPENDITURES

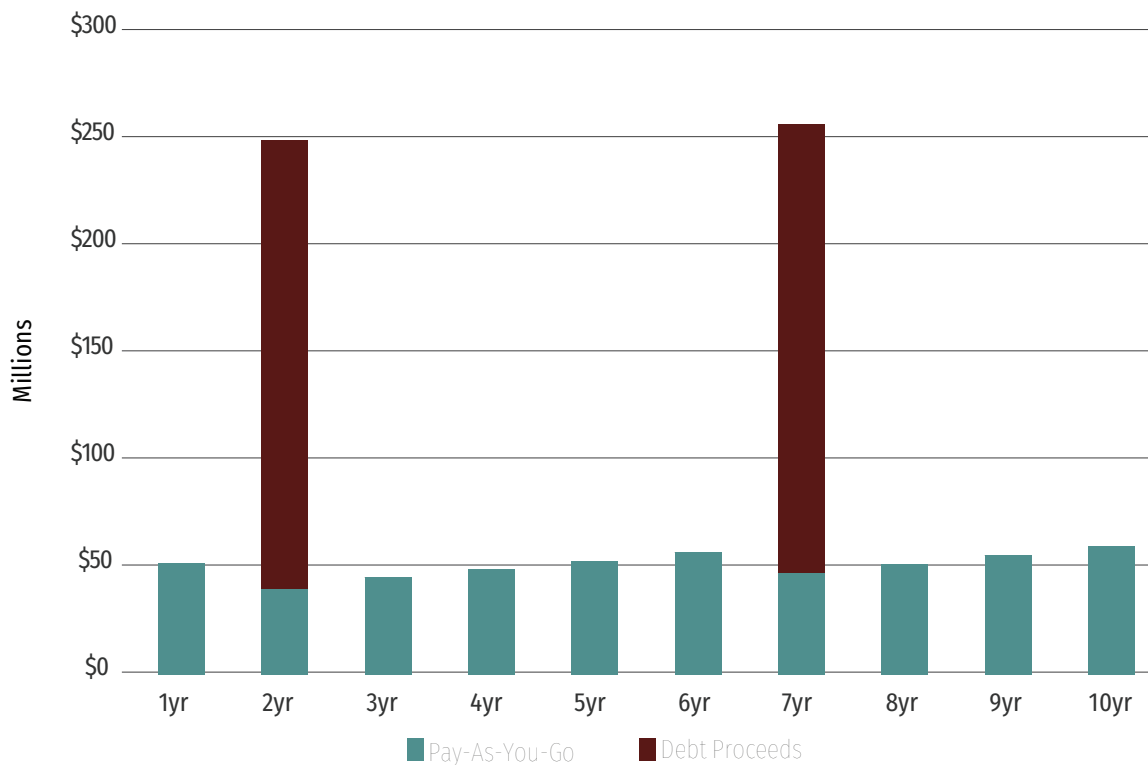


TEN YEAR CONSTRUCTION PROGRAM FUNDING

Each year, in conjunction with the development of the Ten-Year Construction Program (TYCP), a 10-year forecast of project funding is developed. The forecast incorporates revenues including sales tax, interest earnings, debt-financing, and expenditures. This long-range financial plan drives the TYCP project funding schedule including the planning of upcoming design and construction projects.

Approximately \$55.6 million in new resources are available for programming projects in the first year of the TYCP, and total available resources for the TYCP are estimated to be \$913.4 million including future debt issues of \$400 million. To expedite flood control project design and construction, from 1991 to present, the District has issued a total of \$755 million in general obligations, of which \$603 million remains outstanding.

FY 2017-2018 ESTIMATED TOTAL 10-YEAR RESOURCES

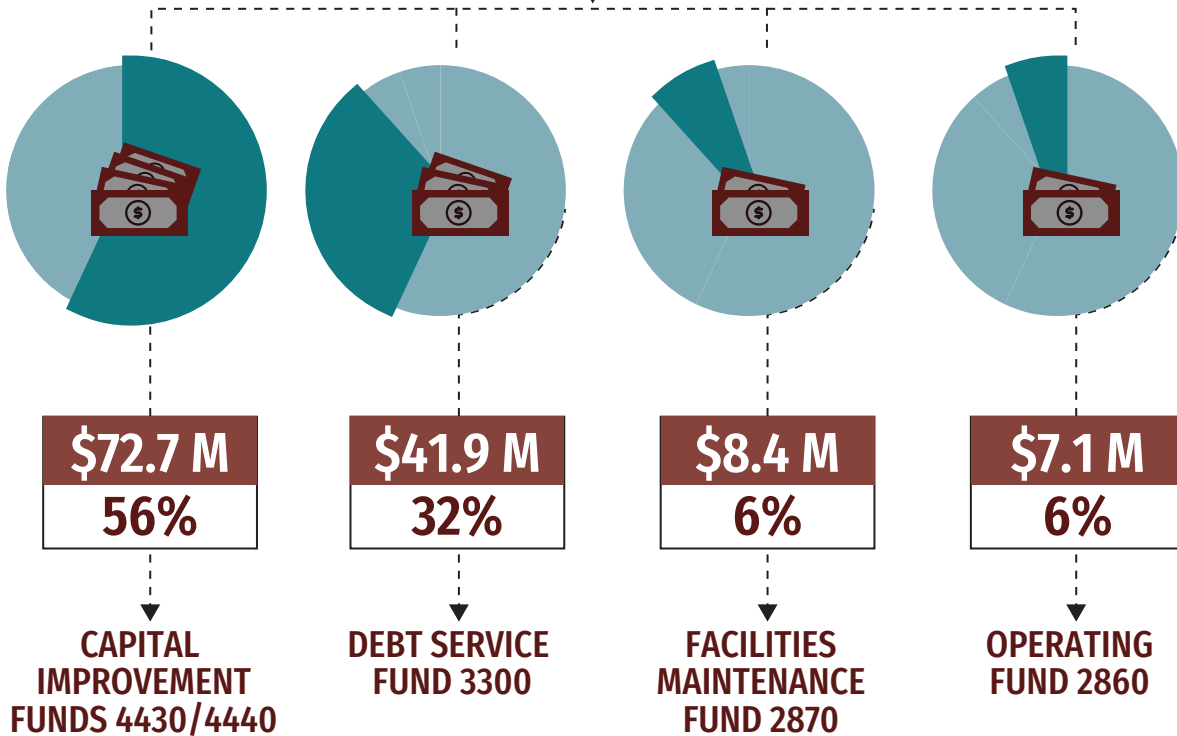


FY 2017-2018 REGIONAL FLOOD CONTROL DISTRICT EXPENDITURES

TOTAL
EXPENDITURES



\$130.1 M
100%



CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT FUNDS

Clark County Regional Flood Control District Governmental Funds - Fiscal Year 2017-2018 Sources and Uses of Funds Summary - Unaudited ⁽¹⁾

	Operating Fund 2860	Facilities Maintenance Fund 2870	Bond Debt Service Fund 3300	Capital Improvement Fund 4430	Construction Bond Fund 4440	Total Regional Flood Control District Funds
Beginning Balance (July 1, 2017)	17,773,004	6,751,389	14,007,177	146,971,824	19,082,466	204,585,860
Sources of Funds						
Sales Tax Revenue	102,074,000	-	-	-	-	102,074,000
Build America Bonds Rebate	2,758,835	-	-	-	-	2,758,835
Interest/Other	467,937	25,412	(359,351)	531,778	115,483	781,259
Refunding Bonds Issued	-	-	109,955,000	-	-	109,955,000
Premium on Bonds Issued	-	-	8,798,839	-	-	8,798,839
Transfers from Other Funds	635,262	8,000,000	39,651,399	55,000,000	-	103,286,661
Total Sources of Funds	105,936,034	8,025,412	158,045,887	55,531,778	115,483	327,654,594
Uses of Funds						
Salaries and Wages	(2,298,894)	-	-	-	-	(2,298,894)
Employee Benefits	(923,622)	-	-	-	-	(923,622)
Services and Supplies	(3,746,601)	(8,370,835)	(1,375)	-	-	(12,118,811)
Capital Outlay	(87,759)	-	-	(63,427,910)	(9,303,382)	(72,819,051)
Principal	-	-	(13,505,000)	-	-	(13,505,000)
Interest	-	-	(27,502,658)	-	-	(27,502,658)
Bond Issuance Costs	-	-	(935,854)	-	-	(935,854)
Transfers to Other Funds	(102,651,399)	-	-	(635,262)	-	(103,286,661)
Total Uses of Funds	(109,708,275)	(8,370,835)	(41,944,887)	(64,063,172)	(9,303,382)	(233,390,551)
Fiscal Year Net Change	(3,772,241)	(345,423)	116,101,000	(8,531,394)	(9,187,899)	94,264,044
Ending Balance (June 30, 2018)	14,000,763	6,405,967	130,108,177	138,440,430	9,894,567	298,849,904

⁽¹⁾ Audited financial statements are expected to be available in November 2018



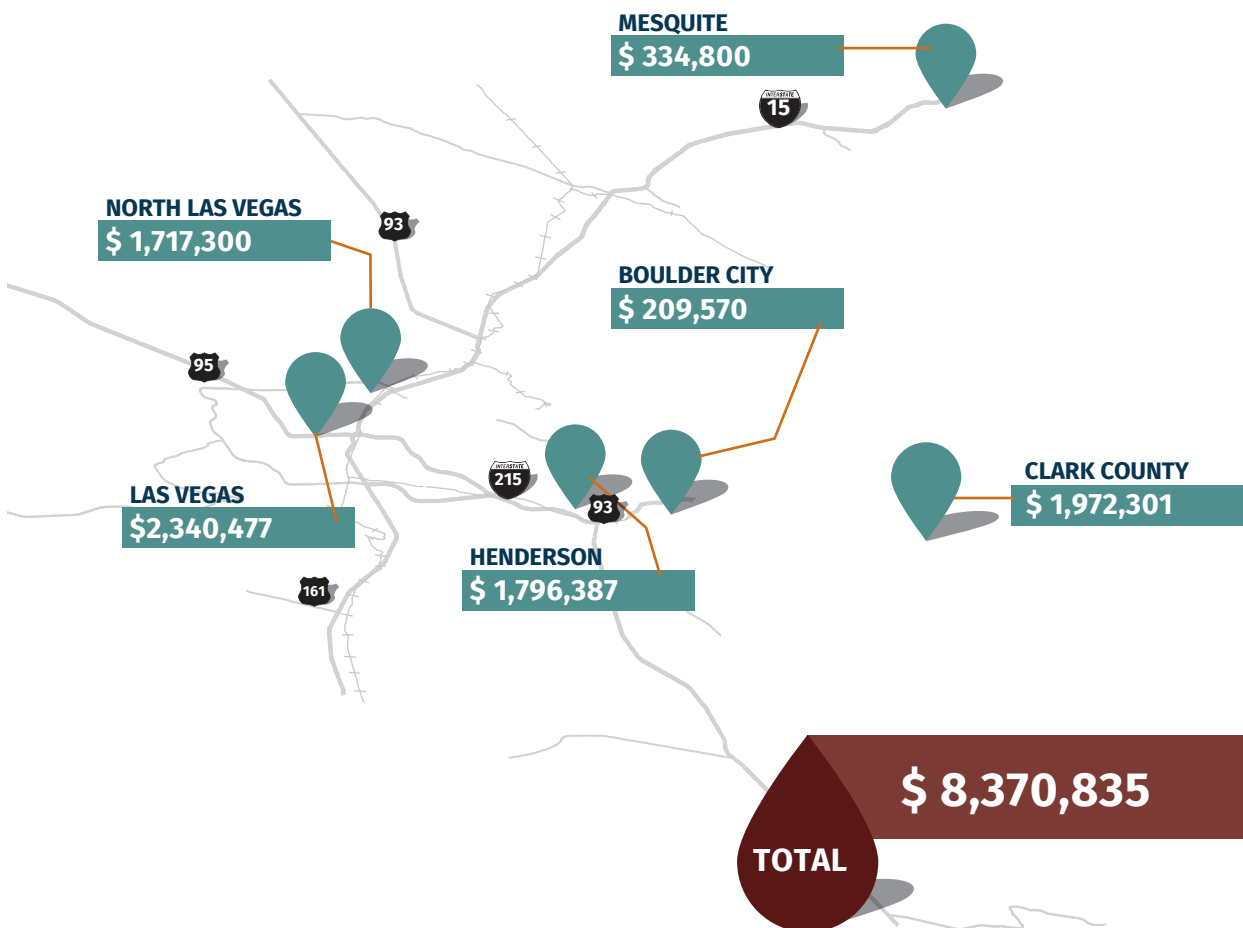
MAINTAINING FLOOD CONTROL FACILITIES

The Board has adopted an Operations and Maintenance Manual to establish performance standards and guidelines for the maintenance of flood control facilities located within the District's service area. Each of the separate entities in Clark County is provided funds by the District to maintain the regional flood control facilities within their respective jurisdictions. The District worked with the entities to develop the fiscal year 2017-2018 Maintenance Work Program which was approved by the Board on June 8, 2017 in the amount of \$12,426,050. The Board approved one supplemental budget request from the City of Henderson totaling \$316,000 for additional funding needed to complete miscellaneous maintenance work activities for the Mission Hills Detention Basin. The Board also approved one supplemental budget request from

Clark County reducing funding by \$2 million for work not completed in the current fiscal year for rebuilding sections of Range Wash that suffered damaged during a storm event. The work to rebuild sections of the Las Vegas Range Wash will be budgeted in the next fiscal year. With approval of the supplemental budget requests, the total approved budget for all entities is \$10,742,050.

Flood control facility maintenance was performed using a combination of private contractors and public maintenance staff. During this year, numerous facilities throughout the District's service area including 93 detention basins and 619 miles of channel and underground storm drains, of which 127 miles are unlined or natural washes, were inspected and/or maintained.

FY 2017-18 EXPENDITURES (UNAUDITED)



PROJECTS COMPLETED

DURING FY 2016-2017

CLARK COUNTY

Flamingo Diversion - Rainbow
Branch
May 2017

CITY OF HENDERSON

Pittman, West Horizon - Palm
Hills
June 2017

Racetrack Channel, Drake to
Burkholder
December 2016

Pittman North Detention Basin
and Outfall, Phase I
January 2017

CITY OF LAS VEGAS

Lexington Street Storm Drain
Improvements, Local Drainage Project
November 2016

Centennial Parkway Channel West -
CC215, Pioneer Way to US 95
December 2016

CITY OF NORTH LAS VEGAS

Ann Road Channel East - Upper Las
Vegas Wash to Fifth Street
January 2017

Las Vegas Wash - N Channel,
Cheyenne to Gowan Road
May 2017



PROJECTS COMPLETED

DURING FY 2017-2018

CLARK COUNTY

Las Vegas Wash -
Water Reclamation Channel
November 2017

Duck Creek at Dean Martin
February 2018

Las Vegas Wash - Sloan Channel
to Stewart Avenue and Flamingo
Wash below Nellis Boulevard
December 2017

Muddy River Logandale Levee
February 2018

Duck Creek Las Vegas Boulevard
June 2018

CITY OF HENDERSON

Appaloosa Storm Drain Project,
Local Drainage Improvements
October 2017

Pittman North Detention Basin
and Outfall, Phase II - Starr
Avenue
December 2017

CITY OF LAS VEGAS

Brent Drainage System - Floyd
Lamb Park to Durango Drive
March 2018

CITY OF NORTH LAS VEGAS

Central Freeway Channel at
Cheyenne
January 2018



PROJECTS UNDER CONSTRUCTION OR ABOUT TO START (AS OF JUNE 30, 2018)

CITY OF BOULDER CITY

Hemenway System, Phase IIA Improvements
November 2018
North Railroad Phase II Conveyance
April 2019

CITY OF HENDERSON

Center Street Storm Drain
July 2018
Pittman Horizon Ridge Detention Basin
February 2019
Pittman North Detention Basin and Outfall
- Phase III
August 2019

CITY OF NORTH LAS VEGAS

Hollywood System, Dunes South Detention
Basin to Centennial Parkway, Phase I
October 2019
Range Wash - Ann Branch, Phase I
December 2019

CLARK COUNTY

Flamingo Wash, Eastern Avenue
September 2018
Katie Avenue Storm Drain, Local Drainage
Improvements
October 2018
Outlying Areas - Searchlight - South,
Encinitas Street Storm Drain
November 2018
Outlying Areas - Laughlin - SR 163 to Casino
Drive
June 2019

CITY OF LAS VEGAS

Freeway Channel - Washington, MLK to
Rancho Drive
July 2018
Gowan North - Buffalo Branch, Lone
Mountain to Washburn Road
January 2019
Centennial Parkway Channel West - US 95,
CC215 to Grand Teton and US95 Crossing at
Kyle Canyon Road
May 2019
Gowan North - El Capitan Branch, Lone
Mountain, to Ann Road
August 2019

Dates shown are estimated dates of completion



PROJECTS SCHEDULED FOR WORK IN FY 2018-2019

CITY OF BOULDER CITY

Hemenway System, Phase IIB Improvements, Design	October 2018
Hemenway System, Phase IIB Improvements, Construction	October 2019

CLARK COUNTY

Airport Channel - Naples, Design	May 2019
Airport Channel - Naples, Construction	June 2020
Blue Diamond Channel 02, Decatur - Le Baron to Richmar, Construction	December 2019
Blue Diamond Wash - Arville to I-15, Design	December 2019
Blue Diamond Wash - Arville to I-15, Construction	December 2020
Blue Diamond Wash Railroad, Right-of-Way	June 2019
Duck Creek, Blue Diamond, Bermuda to Las Vegas Boulevard, Design	December 2019
Duck Creek, Blue Diamond, Bermuda to Las Vegas Boulevard, Right-of-Way	December 2019
Duck Creek, Blue Diamond, Bermuda to Las Vegas Boulevard, Construction	December 2020
Duck Creek Haven Street, Construction	June 2019
Duck Creek Jones Boulevard, Construction	June 2019
Duck Creek, Sunset Park, Design	December 2019
Duck Creek Wash, Torrey Pines to Rainbow, Construction	June 2019
Duck Creek Wash Tributary 4 - Detention Basin to Jones, Design	December 2019
Duck Creek Wash Tributary 4 - Detention Basin to Jones, Construction	December 2020
Flamingo Wash, Industrial Road to Hotel Rio Drive, Design	March 2019
Flamingo Wash, Industrial Road to Hotel Rio Drive, Construction	March 2020
Flamingo Wash, Maryland to Palos Verde, Design	November 2019
Flamingo Wash, Maryland to Palos Verde, Construction	November 2020
Outlying Areas - Fairgrounds Detention Basin, Design	February 2019
Outlying Areas - Fairgrounds Detention Basin (Whipple Street), Construction	February 2020
Outlying Areas - Goodsprings - Phase I, Design	May 2019
Outlying Areas - Goodsprings - Phase I, Construction	May 2020
Silverado Ranch Detention Basin and Outfall Facilities, Design	December 2018
Silverado Ranch Detention Basin and Outfall Facilities, Construction	March 2020
Tropicana Avenue Conveyance - Las Vegas Wash to Boulder Highway, Design	December 2019
Tropicana Avenue Conveyance - Las Vegas Wash to Boulder Highway, Construction	December 2020

Dates shown are estimated dates of completion



PROJECTS SCHEDULED FOR WORK IN FY 2018-2019

Wagon Trail Channel - Sunset to Teco, Design	December 2019
Wagon Trail Channel - Sunset to Teco, Right-of-Way	December 2019
Wagon Trail Channel - Sunset to Teco, Construction	December 2020

CITY OF HENDERSON

Anthem Parkway Channel, Horizon Ridge to Sienna Heights, Design	June 2019
Anthem Parkway Channel, Horizon Ridge to Sienna Heights, Construction	June 2020
Whitney Wash Channel, Design	August 2019
Whitney Wash Channel, Construction	December 2020

CITY OF LAS VEGAS

Buckskin Avenue Storm Drain, Local Drainage Improvements, Construction	July 2019
Cedar Avenue Channel Improvements, Design	June 2019
Flamingo - Boulder Hwy. North, Charleston - Main Street to Maryland Parkway, Design	September 2019
Flamingo - Boulder Hwy. North, Charleston - Main Street to Maryland Parkway, Construction	September 2020
Flamingo - Boulder Highway North - Boulder Hwy, Sahara to Charleston, Design	December 2018
Flamingo - Boulder Highway North - Boulder Hwy, Sahara to Charleston, Construction	June 2020
Flamingo - Boulder Hwy. North, Charleston - Boulder Hwy. to Maryland Parkway and Maryland Parkway System, Design	June 2019
Flamingo - Boulder Hwy. North, Charleston - Boulder Hwy. to Maryland Parkway and Maryland Parkway System, Construction	June 2021
Gowan Box Canyon - Lone Mountain Road, Design	December 2019
Gowan Box Canyon - Lone Mountain Road, Construction	December 2020
Gowan Outfall - Alexander Road, Decatur Blvd to Simmons Street, Design	February 2019
Gowan Outfall - Alexander Road, Decatur Blvd to Simmons Street, Construction	December 2019
Gowan - Alexander Road, Rancho Drive to Decatur Boulevard, Design	June 2019
Gowan - Alexander Road, Rancho Drive to Decatur Boulevard, Construction	June 2020
Gowan North - El Capitan Branch, Ann Road to Centennial Parkway, Design	June 2019
Gowan Outfall - El Capitan Branch, Ann Road to Centennial Parkway, Construction	June 2020
LVW - Moccasin, Skye Canyon Park to Upper LVW, Design	October 2018
LVW - Moccasin, Skye Canyon Park to Upper LVW, Construction	June 2019
Rancho Road System - Elkhorn, Grand Canyon to Hualapai, Design	July 2018
Rancho Road System - Elkhorn, Grand Canyon to Hualapai, Construction	December 2019

Dates shown are estimated dates of completion



PROJECTS SCHEDULED FOR WORK IN FY 2018-2019

CITY OF MESQUITE

Town Wash - Mesa Boulevard, El Dorado to Town Wash, Design	December 2018
Virgin River Flood Wall, Design	June 2019
Town Wash - Mesa Boulevard, El Dorado to Town Wash, Construction	October 2019
Virgin River Flood Wall, Construction	June 2020

CITY OF NORTH LAS VEGAS

Beltway Collection System - Pecos, Design	October 2019
Beltway Collection System - Pecos, Construction	October 2020
Beltway Detention Basin and Channel, Design	January 2019
Fifth Street Collector, Centennial Parkway to Deer Springs Way, Design	October 2018
Fifth Street Collector - Centennial to Deer Springs, Construction	February 2020
Hollywood System, Dunes South Detention Basin to Centennial Parkway, Design	January 2018
Hollywood System, Dunes South Detention Basin to Centennial Parkway Phase I, Construction	July 2020
Hollywood System, Centennial Parkway to Speedway #2 Detention Basin, Construction	September 2020
Oak Island Drive Storm Drain, Local Drainage Improvement, Construction	June 2020
Orchard Detention Basin, Design	June 2019
Orchard Collector - Charleston to Linden, Construction	September 2020
Owens Detention Basin, Collection & Outfall, Design	December 2019
Owens Detention Basin & Outfall, Right-of-Way	December 2019
Range Wash - Alto Conveyance, Confluence DB to Los Feliz, Design	December 2019
Range Wash - Alto Conveyance, Confluence DB to Los Feliz, Right-of-Way	December 2019
Range Wash - Ann Branch, Design	January 2019
Range Wash - Ann Branch, Phase II, Construction	May 2020
Range Wash - Beltway Conveyance, Design	June 2020
Range Wash - Beltway Conveyance, Right-of-Way	June 2020
Range Wash - Beltway Conveyance, Construction	June 2021
Vandenberg North Detention Basin, Collection & Outfall, Design	December 2018
Vandenberg North Detention Basin, Collection & Outfall, Construction	March 2020

Dates shown are estimated dates of completion



RFCD MEMBERSHIPS

ALERT User's Group

American Meteorological Society

American Public Works Association

American Society of Civil Engineers

Association of State Dam Safety Officials

Association of State Floodplain Managers

Floodplain Management Association

Government Finance Officers Association

Las Vegas Valley Watershed Advisory Committee

National Association of Flood and Stormwater Management Agencies

National Hydrologic Warning Council

National Society of Professional Engineers

Nevada Taxpayers Association

Nevada Hazard Mitigation Planning Committee

Public Relations Society of America

Southern Nevada Home Builders Association

UNLV Civil and Environmental Engineering Department Advisory Board

AWARDS

**Distinguished Budget
Presentation Award**

for the District's
Fiscal Year 2017-2018
Budget and Financial
Plan

2018

**The Government
Finance Officers
Association**

**Public Works Project
of the Year Award**

for Environmental
Project more than
\$75 M Las Vegas Wash
- Phase I

2017

**The American
Public Works
Association**

Award of Excellence

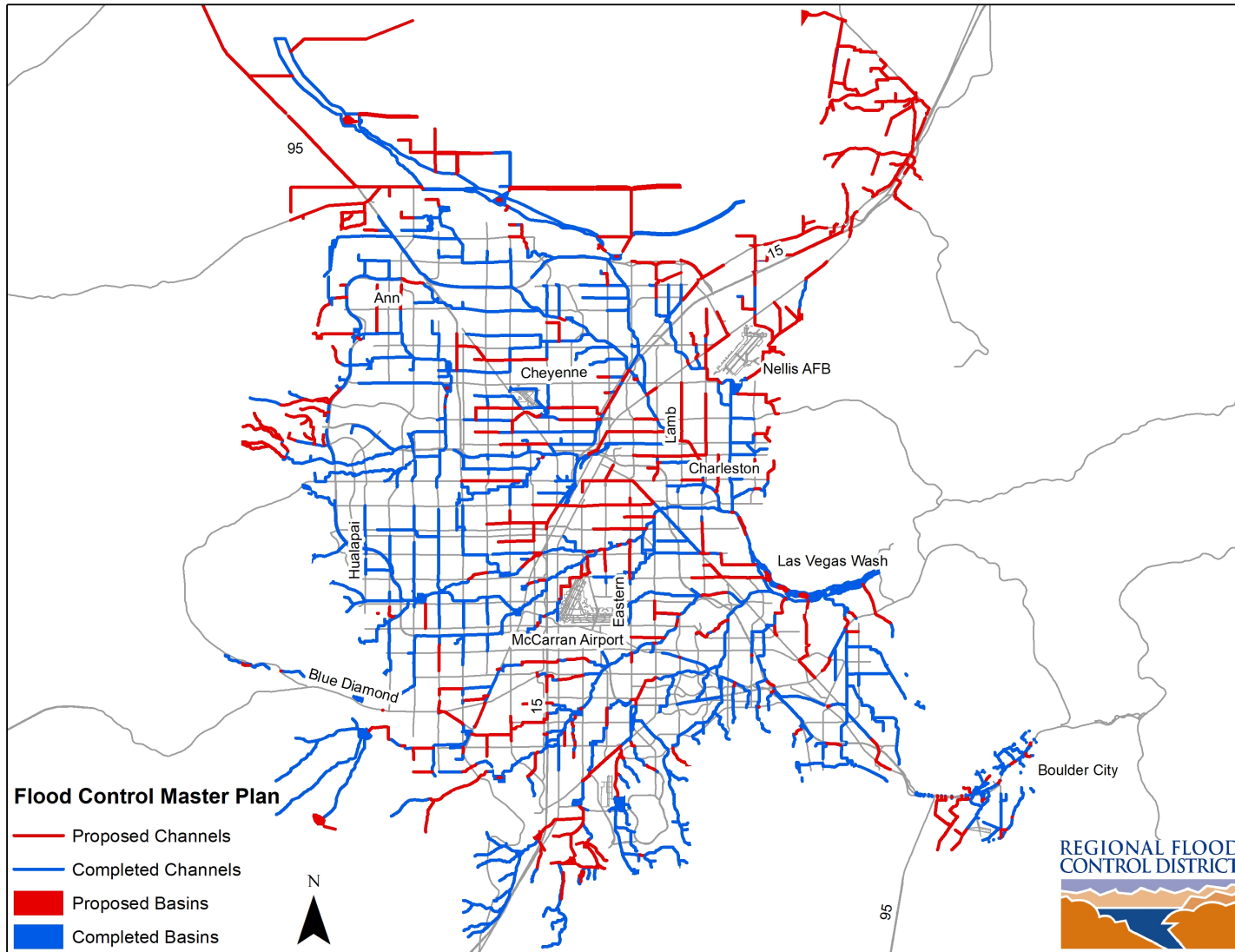
Regional Flood
Control District
Annual Report
2016-2017

2017

**The Public Relations
Society of America
Las Vegas Chapter**



INTERACTIVE MAP OF RFCD FACILITIES





600 SOUTH GRAND CENTRAL PARKWAY, SUITE 300
LAS VEGAS, NV 89106-4511

MONDAY – FRIDAY
8AM TO 5PM
702.685.0000

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