

# BOARD OF DIRECTORS

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**LAWRENCE L. BROWN, III, CHAIRMAN**  
City of Las Vegas, Councilman



**CRESENT HARDY, VICE-CHAIRMAN**  
City of Mesquite, Councilman



**JAMES B. GIBSON**  
City of Henderson, Mayor



**OSCAR B. GOODMAN**  
City of Las Vegas, Mayor



**DARIO HERRERA**  
Clark County, Commissioner



**BRYAN A. NIX**  
City of Boulder City, Councilman



**JOHN K. RHODES**  
City of North Las Vegas, Councilman



**BRUCE L. WOODBURY**  
Clark County, Chairman of the Board  
of County Commissioners



## CHAIRMAN'S MESSAGE

### LARRY BROWN

*This past year has brought significant advances in flood control as well as vivid reminders about the importance of our mission to protect lives and property.*

*Last summer's 100-year flood showed us how vulnerable Clark County is to the devastating effects of floodwaters. It also demonstrated that the flood control facilities we have in place are working. While damage to public property as a result of the July 8, 1999 storm was set at \$20.5 million, losses could have exceeded \$100 million without the flood control programs and improvements already made within the community.*

*Although we hope to never see another storm like the one that hit our Valley last summer, we know the network of detention basins, channels and underground storm drains protected families, homes and businesses in many of the neighborhoods hit by this dramatic weather.*

*Historically, flooding of the Charleston Underpass and neighboring areas has been one of the District's biggest challenges. Over the past seven years, work has progressed on several miles of flood control improvements that will carry floodwater from the Spaghetti Bowl, through the downtown area, to the Las Vegas Wash. This system is the pathway for floodwater that will be diverted from the Charleston Underpass.*

*Construction work began in April on the collection system for the Charleston Underpass to capture the floodwater before it ever reaches that flood-prone area. Two years from now when this multi-million dollar project is complete, it will have far-reaching benefits to the community. These flood control improvements will not only protect a major arterial for east-west travel, it will end the flooding of hundreds of homes and businesses that have been repeatedly damaged by floodwaters.*

*By moving aggressively forward to design and construct projects as quickly as possible, we again have a waiting list for project funding. At the close of this fiscal year, four projects, which have completed the design phase, are on a waiting list for construction funding. We envision additional projects being added to the list that will commit the District through 2001. Immediately as funds become available, money will be provided for construction of those projects.*

*We are also looking at several ways to maximize taxpayer funding. One of those ways is multiple use of flood control facilities. Currently three detention basins are actively used as baseball and soccer fields. Several other detention basins, like the Lakes, Lower Las Vegas Wash, McCullough Hills and Gowan South, are also planned as future recreational sites. As each flood control project progresses through design, opportunities for multiuse are thoroughly explored, always making public safety the top priority. We also recognize that using flood control facilities as recreational amenities maximizes the use of public lands and provides a tremendous benefit to the community.*

*Looking back to last summer's historic storm, we saw the benefits of flood control but are also reminded that the job is not yet complete. A sub-committee of the Board recently examined how we do business and concluded that flood control projects are being built as quickly as possible with available funding. Looking ahead, we will continue to explore all possible means to protect the community from flooding and work to maximize its investment and support its values for a safer place to live, work and play for all of us.*

Lawrence L. Brown III, Chairman  
City of Las Vegas  
July 2000

# GENERAL MANAGER'S MESSAGE

## GALE FRASER



Flood control facilities were put to the test on July 8, 1999, when more than three inches of rain fell in less than two hours in some parts of the Las Vegas Valley resulting in President Clinton declaring Clark County a national disaster area. This historic storm demonstrated the necessity of flood protection and confirmed the need for additional flood control to protect the community from devastating floodwaters.

The progress of flood control since the District's formation in 1986 has been substantial. Approximately 250 miles of conveyance systems, 48 detention basins, and several flood control programs are working to protect families and businesses throughout Clark County. Eighteen construction projects were completed this last year, with nearly a dozen more nearing completion in the fall of 2000.

Working together with the entities and guided by the vision of our Board of Directors, we currently have projects totaling close to \$300 million in either design or construction. A priority for funding list has been established because we again have more projects ready for construction than we have funding available. While four projects were on the waiting list as of June 2000, we anticipate additions to the list by the fall that will commit District funds through 2001.

To ensure flood control projects are built as quickly as possible, the District is working with all local governments, developers, the Federal Government, and others, to find innovative ways to expedite flood improvements. This year, we signed a historic agreement with the U.S. Army Corps of Engineers on the Tropicana and Flamingo Washes Project that allows local funding of flood control projects ahead of the Corps' schedule and provides for reimbursement by the Federal Government at a later date. This agreement, the first of its kind in the nation, is bringing flood protection to County residents sooner than would have been possible on the Federal Government's appropriation schedule.

Also, the Board appointed a working group to examine expediting flood control projects in our community. This subcommittee worked for several months to determine if flood improvements could be accelerated. They concluded that flood control projects are being built as quickly as possible with available resources and on pace with the timeline originally envisioned when the first Master Plan was adopted in 1986. They also recommended a legislative change that could help in expediting the plan and would require approval by the Nevada Legislature. As we enter the 2001 Legislative session, this and other recommendations are being pursued by the District through the Southern Nevada Regional Planning Coalition.

Looking ahead to the coming year, we will continue to explore opportunities for aggressive flood management. We are also enhancing our public information activities and this year debuted a new and expanded website that includes real-time rain and weather information among other additions. Issues, like air and water quality and multiuse facilities, will play key roles this coming year as we work with other agencies to help protect and preserve our community for future generations.

As General Manager of the District, I am proud of our accomplishments over the past year. The District's highly qualified and competent staff will continue to work and support the Board and entities in Clark County as we set our sights on being the premier flood management agency in the southwest.

A handwritten signature in black ink that reads "Gale Wm. Fraser, II". The signature is written in a cursive style with a double underline at the end.

Gale Wm. Fraser, II, P.E.  
General Manager/Chief Engineer  
July 2000

## ABOUT OUR REGION

With more than 5,000 people moving to Clark County each month, the area continues to be one of the fastest growing in the nation. Population estimates for 1999 show Clark County with more than 1.3 million residents and an average growth rate of 6 percent since 1994. The area is also a prime destination spot for tourists and conventions with almost 34 million people visiting the area last year.

Southern Nevada's economy makes it possible for the community to continue building and improving its infrastructure to accommodate new residents and businesses. Last year, 39 new companies located to Southern Nevada, contributing almost \$300 million to the economy and providing jobs for more than 4,000 residents. In addition, more than 20,000 building permits were issued for single-family and multi-family residences.

With unprecedented growth and development, the flood control projects and programs required to manage floodwaters must be comprehensive and varied. This Annual Report provides background information about the District and summarizes many of the programs in place that support its mission to protect lives and property from the impacts of flooding.

## AUTHORITY OF THE DISTRICT

The Nevada Legislature authorized the creation of the District in 1985 to develop a coordinated and comprehensive master plan to solve flooding problems, to regulate land use in flood hazard areas, to fund and coordinate the construction of flood control facilities, and to 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 and safety crews. The service area for the District includes Clark County and the incorporated cities of Boulder City, Henderson, Las Vegas, Mesquite, and North Las Vegas.

The District is governed by a Board of Directors comprised of the same membership as the Regional Transportation Commission, except that each board/commission elects its own officers. The Board includes two representatives from both Clark County and the City of Las Vegas, and one representative from the cities of Boulder City, Henderson, Mesquite, and North Las Vegas. 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.

Annually, the Board elects a chairman and a vice-chairman from among its members, and a secretary of the Board who may or may not be a member of the Board. The Clark County Treasurer serves as treasurer for the Board.

A 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; however, 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.



LAS VEGAS WASH



RFCD OFFICES



MOTORISTS TRAVEL FLOODED STREETS

## TECHNICAL ADVISORY COMMITTEE

The Regional Flood Control District Board is advised on technical matters by a Technical Advisory Committee (TAC), the representation of which mirrors that of the Board of Directors. The current members include local public works directors, city engineers, and planning directors. 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.

### MEMBERSHIP OF THE TAC

(as of June 2000):

#### Clark County

Martin Manning, Public Works Director, Vice-Chairman

John Schlegel, Comprehensive Planning Director

#### Boulder City

Scott Hansen, City Engineer, Chairman

#### Henderson

Mark Calhoun, Public Works Director

#### Las Vegas

Richard Goecke, Public Works Director

Charles Kajkowski, City Engineer

#### Mesquite

Allen Bell, City Engineer

#### North Las Vegas

Jim Bell, Public Works Director



TECHNICAL ADVISORY COMMITTEE MEMBERS: SEATED L TO R: ALLEN BELL, CHARLES KAJKOWSKI, RANDY FULTZ (ALT.), MARK CALHOUN; STANDING: JOHN SCHLEGEL, JIM BELL, SCOTT HANSEN, DENIS CEDERBURG (ALT.)

## CITIZENS' ADVISORY COMMITTEE

The Citizens' Advisory Committee (CAC) is comprised of one citizen appointed by the county commission and each city council included in the District, and one citizen appointed by each member of the Board. The CAC was created to represent public interest and to advise the Board on various matters. Each year the CAC tours a portion of District's service area. This year the tour covered facilities in the southern portion of the Las Vegas Valley.

### MEMBERSHIP OF THE CAC

(as of June 2000):

#### Clark County

M.J. Harvey, Chairman

Philip A. Wucinich

1 Vacancy

#### Las Vegas

Abe Mayhan, Vice-Chairman

Donald Clark                      Tony Sanchez

#### Boulder City

Bob Brose                      Richard Wyman

#### Mesquite

Ed Seum                      Natalie Hafen

#### North Las Vegas

Kelly Wittwer

1 Vacancy

#### City of Henderson

Calvin Black

1 Vacancy

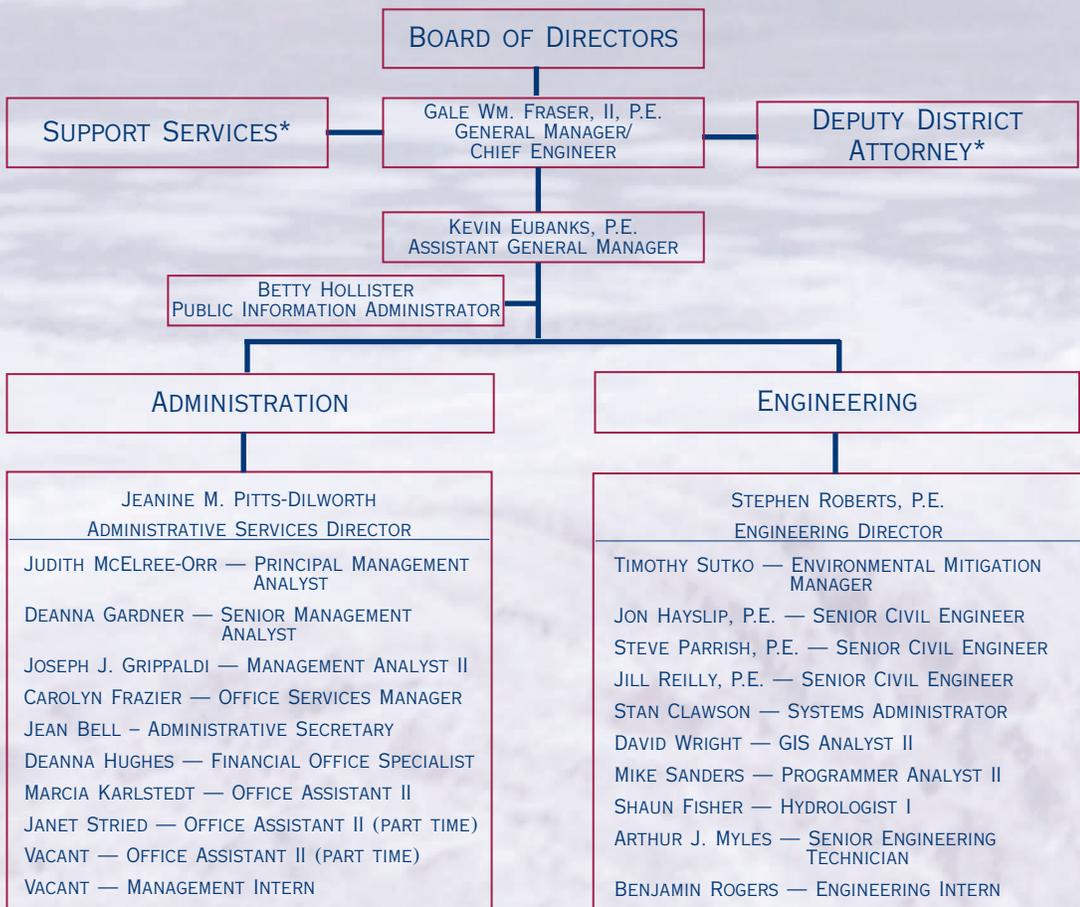


CITIZENS ADVISORY COMMITTEE MEMBERS: PICTURED L TO R: BOB BROSE, ABE MAYHAN, TONY SANCHEZ, PHILIP WUCINICH, M.J. HARVEY, KELLY WITTEW, CALVIN BLACK AND DONALD CLARK



CAC TOUR

# DISTRICT'S ORGANIZATIONAL CHART



\*THE REGIONAL FLOOD CONTROL DISTRICT RECEIVES VARIOUS SUPPORT FROM SEVERAL CLARK COUNTY DEPARTMENTS, AS AUTHORIZED BY STATE STATUE.



DYNAMITE WAS USED TO EXCAVATE LAND FOR THE DURANGO COLLECTOR

## MISSION STATEMENT

THE MISSION OF THE CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT IS TO IMPROVE THE PROTECTION OF LIFE AND PROPERTY FOR EXISTING AND FUTURE RESIDENTS FROM THE IMPACTS OF FLOODING.

## FLOOD FACTS

- SINCE BEING FORMED IN 1986, THE FLOOD CONTROL DISTRICT HAS OVERSEEN ABOUT \$600 MILLION IN FLOOD CONTROL IMPROVEMENTS IN CLARK COUNTY.
- OVER THE LAST DECADE, SUBSTANTIAL PROGRESS HAS BEEN MADE ON FLOOD PROTECTION FOR THE COMMUNITY. CURRENTLY 48 DETENTION BASINS AND ABOUT 250 MILES OF STORM DRAINS AND CHANNELS ARE WORKING TO PROTECT FAMILIES, HOMES AND BUSINESSES FROM FLOODWATERS.
- THANKS TO CONSTRUCTION OF FLOOD CONTROL FACILITIES TO DATE, 23 SQUARE MILES OR ABOUT 15,000 ACRES OF LAND IN CLARK COUNTY HAVE BEEN REMOVED FROM FEMA FLOOD ZONES.

# HISTORY OF FLOODING IN CLARK COUNTY

Recorded reports of flooding in Clark County date back almost one hundred years. 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 nine "million dollar floods." In that same period, 26 lives were lost in 13 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 from the Gulf of Mexico 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. Falling on steep mountain slopes and armored desert surfaces, the rainwater runs off rapidly and concentrates in the urbanized areas at lower elevations.

Most residents and visitors are unaware of the flood potential or never see flooding occur until it is too late. Aside from the tremendous property damage and deaths related to flooding, Clark County residents experience inconvenience by impassable or difficult to travel roads. Support services such as police, fire, and ambulance are sometimes delayed in responding to victims of life-threatening incidents. Flood events can also 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.



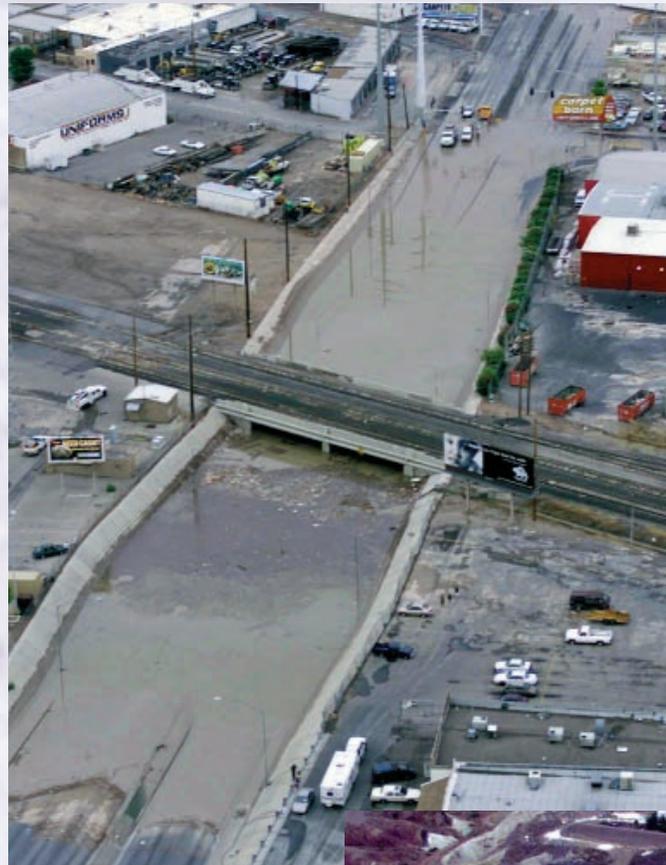
STORM DAMAGE TO  
BOULDER HIGHWAY



WARNING SIGNS  
ARE POSTED  
FOR MOTORISTS



COLORADO AVENUE  
FLOODING



CHARLESTON UNDERPASS



LAS VEGAS WASH  
AT LAKE LAS VEGAS



IMPROVEMENTS ARE UNDERWAY TO END FLOODING OF THE CHARLESTON UNDERPASS WITH THE I-15 FREEWAY CHANNEL PROJECT

The average annual rainfall for the Las Vegas Valley as measured by the National Weather Service (NWS) at McCarran International Airport is slightly more than 4 inches. During the 1999 calendar year 3.73 inches of rain was recorded at that site. While this annual total was less than the amount of annual rainfall the Valley normally receives, it belies the fact that more than 1.25 inches of rain (nearly one-third of the average annual precipitation) fell in a mere two-hour period on July 8, 1999.

This intense summer storm caused widespread flooding in the Valley and resulted in approximately \$20.5 million dollars in public property damages. One person died in floodwaters and emergency crews performed more than 150 rescues of stranded motorists. Regional flood control facilities worked as they were designed and provided significant protection to families, businesses and visitors throughout the valley. The extent of the damages would have been much worse had it not been for the flood control programs and improvements made during the last decade.



FLOODING ON I-15 BACKS UP TRAFFIC



RED ROCK DETENTION BASIN



UPPER FLAMINGO DETENTION BASIN OUTFALL

PORTIONS OF THE FLAMINGO WASH AT MIRACLE MILE MOBILE HOME PARK SUSTAINED HEAVY EROSION DURING LAST YEAR'S FLOOD



A STRANDED MOTORIST ON BOULDER HIGHWAY AWAITS RESCUE



MOTORISTS ATTEMPT TO MANEUVER THROUGH FLOODWATER



FLAMINGO WASH AT BOULDER HIGHWAY



## LAS VEGAS VALLEY EXPERIENCES 100-YEAR STORM

**T**orrential rains deluged the Las Vegas Valley the morning of Thursday, July 8, 1999 wreaking havoc on area streets, flooding homes and businesses, and putting flood control facilities to the test. One person died in floodwaters and three mobile homes were destroyed when a section of the Flamingo Wash collapsed. More than \$20 million in damage to public property was sustained, with several million more to vehicles and homes.

This 100-year storm left many parts of the Valley looking like raging rivers. Perhaps the most notable feature of this storm system was the size of the area hit by the intense rainfall. The most rain fell over the northwest, west, and southwest portions of the Valley resulting in significant flows in the Flamingo Wash, Duck Creek, and the Las Vegas Wash. Flows in these washes are estimated to have been greater than any previously recorded flows.

In the Las Vegas Valley, rainfall began in the northwest shortly before 9:30 a.m. and quickly intensified. By 10 a.m., nearly one inch of rain had fallen in the Lone Mountain area. At the same time, an intense band of rain cells that had developed in the extreme southern part of the County moved into the Valley from the south. This system appears to have merged with the cells that had developed in the northwest part of the Valley and the combined energy of the two systems triggered extremely intense rainfall over most of the Valley until shortly after noon.

During the worst part of the storm, rainfall intensities of 3-5 inches per hour were not uncommon. McCarran International Airport operated under "weather hold" conditions from approximately 11 a.m. until noon during which time approximately 20 departing flights were held on the ground and four arriving aircraft were diverted to Los Angeles. Within the Las Vegas Valley, two District rain gages reported more than three inches of rainfall, five other gages reported over two inches of rain, and an additional 12 gages received in excess of 1.5 inches of rain. Most of this rainfall occurred within a 60-90 minute period.



IMPROVEMENTS ARE UNDERWAY TO THE FLAMINGO WASH WHERE IT CROSSES UNDER BOULDER HIGHWAY

The runoff that resulted from this massive storm caused widespread street flooding, stranding motorists and taxing emergency crews. The news media reported two deaths resulting from this flood event, one of which was a drowning in the Flamingo Wash. The second death occurred as the result of a weather-related traffic accident. More than 150 people were rescued by emergency crews, most of them stranded motorists. Metro Search and Rescue used helicopters to pluck eight people out of floodwater at six different locations.

Damages to public property resulting from this storm are estimated at \$20.5 million. As a result of the severity of damages to public and private properties, the Clark County Board of Commissioners declared a State of Emergency on July 9, 1999. On July 15, the Governor's Office issued a Declaration of Emergency for the area and requested assistance from the Federal Emergency Management Agency. President Clinton declared the area a federal disaster area on July 19.

Throughout the Valley, the network of flood control facilities worked as they were designed protecting lives and property for the community. While the damages resulting from this intense storm were devastating, the flood control programs and facilities that have been put in place helped to avert more than \$100 million in damages. The Gowan South Detention Basin on the west side of the Valley filled 22 feet deep over the 54-acre site preventing millions of gallons of storm water from flooding nearby homes, a hospital, daycare center and fire station. On the east side of town near Flamingo and Harmon, the VanBuskirk Detention Basin and channel rose seven feet in eight minutes, protecting hundreds of neighboring homes.

The National Weather Service has characterized the July 8 storm as one of the top four storms to hit the Las Vegas Valley in the twentieth century. Some personal accounts suggest that this may have been the worst storm in the last 100 years, surpassing even the Caesar's Palace flood of 1975. Improved technology allowed the July 8 storm to be monitored and characterized better than previous rain storms, so it is difficult at best to declare which was the greatest storm. However, most long-time residents and local flood experts echo the view of the National Weather Service that reported "the flooding in Las Vegas July 8 would have been significantly greater without the efforts of the Clark County Regional Flood Control District."

## FLOOD FACTS

- THE GOWAN SOUTH DETENTION BASIN IN THE NORTHWEST PART OF THE VALLEY FILLED TO WITHIN 18 INCHES OF THE TOP OF THE EMERGENCY SPILLWAY DURING LAST SUMMER'S STORM. THE BASIN FILLED TO A DEPTH OF 22 FEET AND INUNDATED THE 54-ACRE SITE. IT PROTECTED NEIGHBORING HOMES, BUSINESSES, A HOSPITAL, FIRE STATION AND DAY CARE CENTER, AMONG OTHER DOWNSTREAM PROPERTIES.
- ON JULY 8, 1999, ONE RFGD RAIN GAGE REPORTED ALMOST 3/4 INCH OF RAIN FELL IN FIVE MINUTES. THAT'S JUST A LITTLE MORE TIME THAN IT TAKES A PERSON TO READ THIS SECTION OF THE ANNUAL REPORT.



GOWAN SOUTH DETENTION BASIN



MOTORISTS TRAVEL FLOODED CITY STREETS

# DEMONSTRATING FISCAL INTEGRITY

In the primary election of 1986, Clark County voters approved a ¼ 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 revenues for the past fiscal year totaled \$52,958,759, and interest earnings amounted to \$2,458,227. This brings total revenues derived from sales tax since March 1, 1987, to \$408,556,958. Sales tax revenues for fiscal year 2000-01 are projected to be approximately \$54.7 million.

In September 1998, the District issued \$150 million in General Obligation Flood Control Bonds to accelerate flood control projects. The official bond statement identified 52 projects eligible for funding totaling over \$192.6 million. At the close of fiscal year 1999-00, the proceeds from the \$150 million issue were fully encumbered. On April 8, 1999, the Board of Directors took unprecedented action by earmarking \$28,013,000 to fund the Freeway Channel (Charleston Underpass) project, and during fiscal year 1999-00, the Board took action to approve \$34,160,000 for construction of the project. However, the total cost of the Freeway Channel project is \$38,700,000, making it the largest single project ever undertaken by the District. In order for the City of Las Vegas to award the bid, the District entered into an agreement with the City who advanced \$4,540,000 in funding on behalf of the District until District funds become available. This agreement, the first of its kind, allowed the project to go forward.



ANTHEM  
DETENTION BASIN

In fiscal year 1999-00, the Construction Bond Fund (Fund 444) earned \$4,492,611 in interest. This has allowed the District to maximize funding of the Capital Improvement Program by funding additional projects. Furthermore, the District is currently expediting completion of bond-funded projects in order to reallocate any remaining funding to construct additional projects.



WESTERN BELTWAY

During fiscal year 1999-00, requests for funding Capital Improvement Program (CIP) projects exceeded available District funds. As a result, on April 13, 2000, a priority list for funding was established, which continues to be in effect as of the printing of this annual report. The District has recognized the need to expedite implementation of the Master Plan, and staff is currently examining options to achieve this goal.

In addition, the District was recognized by the Government Finance Officers Association of the United States and Canada (GFOA) for its fiscal year 1999-00 Budget and Financial Plan. The District received the Distinguished Budget Presentation Award, the highest form of recognition in governmental budgeting awarded for the sixth consecutive year by the national association. In order, to receive the GFOA award, the District had to satisfy nationally recognized guidelines for effective budget presentation as judged by a panel of government finance professionals.

Table I lists the Operating Fund revenues and expenditures of the District for fiscal year 1999-00. As shown on Table II, the District has kept administrative costs to an absolute minimum in order to allow maximum funding for the construction and maintenance of flood control projects. Table III details the resources made available to the Capital Improvement Fund through funding contracts, and the associated CIP expenditures. Table IV lists the resources and expenditures of the Construction Bond Fund, and Table V outlines the corresponding Bond Debt Service Fund activity. Table VI highlights the District's new Facilities Maintenance Fund, which provides resources for the Maintenance Work Program.



EAST C-1 DETENTION BASIN

**TABLE I - FUND 286  
OPERATING FUND  
SCHEDULE OF RESOURCES AND EXPENDITURES**

Fiscal Year Ending June 30, 2000

	<b>FY 1999-00</b> <i>Unaudited</i>	<b>FY 1998-99</b> <i>Prior Year Audited</i>
<b>RESOURCES:</b>		
Sales and Use Tax	\$ 52,958,759	\$ 49,146,850
Interest	384,638	478,875
Charges for Services	16,020	55,000
Transfers In (From Fund 443)	7,004,188	6,069,893
Other	116	5,412
<b>Total Resources</b>	<b>\$ 60,363,721</b>	<b>\$ 55,756,030</b>
<b>EXPENDITURES:</b>		
Salaries & Wages	\$ 1,233,608	\$ 964,279
Employee Benefits	359,254	286,110
Services and Supplies	1,379,775	1,688,804
Capital Outlay	719,725	1,756,276
Capital Improvement Fund (Transfers to Fund 443)	25,015,103	19,720,555
Maintenance Work Program (Transfers to Fund 443)	0	5,731,688
Facilities Maintenance Fund (Transfers to Fund 287)	6,237,463	0
Bond Debt Service Fund (Transfers to Fund 330)	19,633,589	15,910,639
<b>Total Expenditures</b>	<b>\$ 54,578,517</b>	<b>\$ 46,058,351</b>
<b>FUND BALANCE:</b>		
Beginning of Year	\$ 26,760,365	\$ 17,062,686
<b>End of Year</b>	<b>\$ 32,545,569</b>	<b>\$ 26,760,365</b>
Reserved Fund Balance <sup>1</sup>	\$ 1,238,886	\$ 919,600
Designated Fund Balance <sup>2</sup>	\$ 31,306,683	\$ 25,840,765
Undesignated Fund Balance	\$ 0	\$ 0

<sup>1</sup> Reserved Fund Balance is the portion that the District has contractually obligated either through Interlocal Contracts or Purchase Orders.

<sup>2</sup> Designated Fund Balance is the portion that the District has earmarked for projects that are part of the Ten-Year Construction Program.

### FLOOD FACTS

- FLOOD INSURANCE IS AVAILABLE TO EVERYONE, WHETHER OR NOT YOU LIVE IN A FLOOD ZONE. HOWEVER, FLOOD INSURANCE IS LESS EXPENSIVE FOR HOMES NOT IN A FLOOD ZONE.
- THE DISTRICT'S WEBSITE, [WWW.CCRFCD.ORG](http://WWW.CCRFCD.ORG), PROVIDES REAL-TIME RAINFALL AND WEATHER INFORMATION CURRENTLY RECORDED AT ALL OF THE MORE THAN 100 GAGES MONITORED BY THE REGIONAL FLOOD CONTROL DISTRICT.
- DETENTION BASINS TEMPORARILY DETAIN STORMWATER RUNOFF AND RELEASE IT AT A REDUCED RATE OVER AN EXTENDED PERIOD OF TIME. THE BASINS SPAN SEVERAL ACRES, SOME MORE THAN 100 ACRES, WITH AVERAGE DEPTHS OF ABOUT 30 FEET.

PRECAST  
REINFORCED  
CONCRETE BOXES  
ARE PUT IN PLACE  
ALONG WALL  
STREET FOR  
THE I-15 FREEWAY  
CHANNEL PROJECT



I-15 FREEWAY CHANNEL

TABLE II

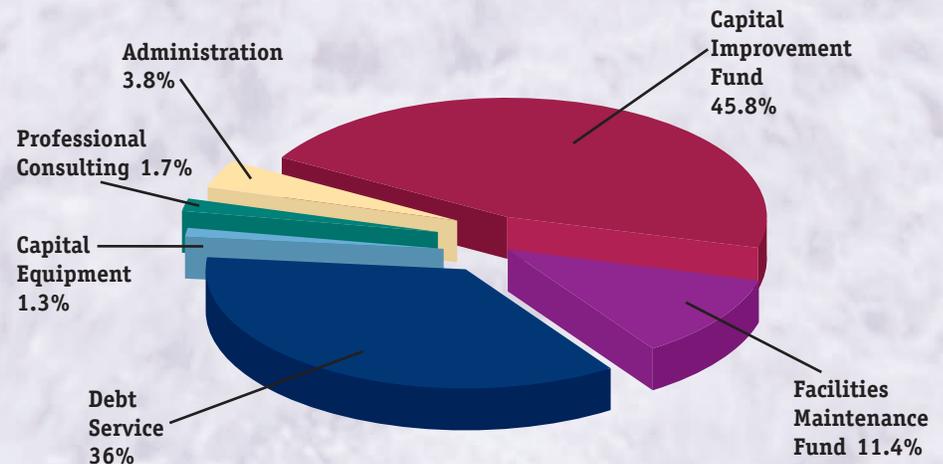
**FY 1999-00 DISTRIBUTION OF OPERATING  
FUND EXPENDITURES**

Capital Improvement Fund	\$ 25,015,103	45.8%
Bond Debt Service Fund <sup>1</sup>	19,633,589	36.0%
Facilities Maintenance Fund	6,237,463	11.4%
Operations:		
Administration	2,052,872	3.8%
Professional Consulting Services	919,765	1.7%
Capital Equipment	719,725	1.3%
<b>Total Expenditures</b>	<b>\$54,578,517</b>	<b>100.0%</b>

<sup>1</sup> Bond Debt Service includes 1991 (\$80 million) and 1988 (\$150 million) general obligation bonds that were issued to expedite construction of flood control improvements.



LAKES DETENTION BASIN



WESTERN BELTWAY

**TABLE III - FUND 443**  
**CAPITAL IMPROVEMENT FUND**  
**SCHEDULE OF RESOURCES AND EXPENDITURES**

Fiscal Year Ending June 30, 2000

	<b>FY 1999-00</b> <i>Unaudited</i>	<b>FY 1998-99</b> <i>Prior Year</i> <i>Audited</i>
<b>RESOURCES:</b>		
Capital Improvement Fund (From Fund 286)	\$ 25,015,103	\$ 19,720,555
Maintenance Work Program (From Fund 286)	0	5,731,688
Interest	1,767,758	2,745,432
Other	229	132,574
<b>Total Resources</b>	<b>\$ 26,783,090</b>	<b>\$ 28,330,249</b>
<b>EXPENDITURES:</b>		
Capital Improvement Program	\$ 23,147,465	\$ 43,911,885
Maintenance Work Program	0	4,226,934
Transfers Out (To Fund 286)	7,004,188	6,069,893
Services and Supplies	35,593	21,824
<b>Total Expenditures</b>	<b>\$ 30,187,246</b>	<b>\$ 54,230,536</b>
<b>FUND BALANCE:</b>		
Beginning of Year	\$ 44,959,151	\$ 70,859,438
<b>End of Year</b>	<b>\$ 41,554,995</b>	<b>\$ 44,959,151</b>
Reserved Fund Balance <sup>1</sup>	\$ 41,263,216	\$ 44,676,404
Designated Fund Balance <sup>2</sup>	\$ 291,779	\$ 282,747
Undesignated Fund Balance	<b>\$ 0</b>	<b>\$ 0</b>

- <sup>1</sup> Reserved Fund Balance is the portion that the District has contractually obligated either through Interlocal Contracts or Purchase Orders.
- <sup>2</sup> Designated Fund Balance is the portion that the District has earmarked for projects that are part of the Ten-Year Construction Program.



PRECAST  
REINFORCED  
CONCRETE BOXES

### FLOOD FACTS

- CHANNELS ARE OPEN CANALS THAT CONVEY FLOODWATER THROUGH THE VALLEY. SOME OF THE CHANNELS PASS FLOODWATERS AT 25 TO 40 MILES PER HOUR.
- EMERGENCY CREWS PERFORMED MORE THAN 150 RESCUES OF STRANDED MOTORISTS DURING LAST SUMMER'S HISTORIC STORM. MOST FLOOD DEATHS AND RESCUES OCCUR WHEN PEOPLE TRY TO DRIVE THROUGH FLOODED AREAS.
- STORM DRAINS ARE PATHWAYS THAT CONVEY FLOODWATER SAFELY UNDERGROUND. STORM DRAINS ARE CONSTRUCTED OF REINFORCED CONCRETE PIPES OR BOX STRUCTURES. THESE CONCRETE PIPES OFTEN RANGE UP TO 10 FEET IN WIDTH.



GOWAN NORTH CHANNEL



MANHOLE IN AN  
OUTFALL PIPE



**TABLE IV - FUND 444  
CONSTRUCTION BOND FUND  
SCHEDULE OF RESOURCES AND EXPENDITURES**

Fiscal Year Ending June 30, 2000



LOWER DUCK CREEK  
DETENTION BASIN

**FY 1999-00**  
*Unaudited*

**FY 1998-99**  
*Prior Year  
Audited*

**RESOURCES:**

Proceeds from bonds	\$ 0	\$ 150,885,010
Interest	4,492,611	5,209,546
Other	420	14,571
<b>Total Resources</b>	<b>\$ 4,493,031</b>	<b>\$ 156,109,127</b>

**EXPENDITURES:**

Project Expenditures	\$ 76,939,666	\$ 8,311,649
Services and Supplies	93,497	38,579
<b>Total Expenditures</b>	<b>\$ 77,033,163</b>	<b>\$ 8,350,228</b>

**FUND BALANCE:**

Beginning of Year	\$ 148,834,834	\$ 1,075,935
<b>End of Year</b>	<b>\$ 76,294,702</b>	<b>\$ 148,834,834</b>

Reserved Fund Balance <sup>1</sup>	70,671,768	146,538,555
------------------------------------	------------	-------------

Designated Fund Balance <sup>2</sup>	5,622,934	2,296,279
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Undesignated Fund Balance	<b>\$ 0</b>	<b>\$ 0</b>
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LOWER RED ROCK  
COMPLEX

<sup>1</sup> Reserved Fund Balance is the portion that the District has contractually obligated either through Interlocal Contracts or Purchase Orders.

<sup>2</sup> Designated Fund Balance is the portion that the District has earmarked for projects that are part of the Ten-Year Construction Program.

**TABLE V - FUND 330  
BOND DEBT SERVICE FUND  
SCHEDULE OF RESOURCES AND EXPENDITURES**

Fiscal Year Ending June 30, 2000

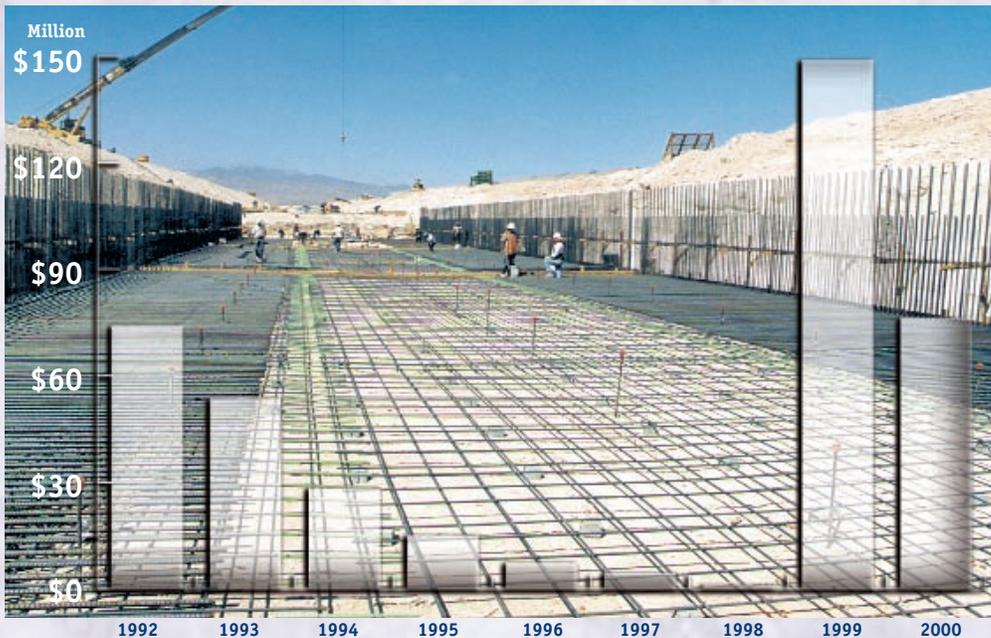
	<b>FY 1999-00</b> <i>Unaudited</i>	<b>FY 1998-99</b> <i>Prior Year Audited</i>
<b>RESOURCES:</b>		
Interest	\$ 279,611	\$ 298,303
Proceeds from bonds	0	250,000
Transfers from Fund 286	19,633,589	15,910,639
<b>Total Resources</b>	<b>\$ 19,913,200</b>	<b>\$ 16,458,942</b>
<b>EXPENDITURES:</b>		
Bond Principal & Interest Payments <sup>1</sup>	\$ 19,515,145	\$ 12,031,578
Services and Supplies	7,835	227,348
<b>Total Expenditures</b>	<b>\$ 19,522,980</b>	<b>\$ 12,258,926</b>
<b>FUND BALANCE:</b>		
Beginning of Year	\$ 8,184,889	\$ 3,984,873
<b>End of Year</b>	<b>\$ 8,575,109</b>	<b>\$ 8,184,889</b>

<sup>1</sup> Bond Debt Service includes 1991 (\$80 million) and 1998 (\$150 million) general obligation bonds that were issued to expedite construction of flood control improvements.



PIONEER OUTFALL

**CONSTRUCTION BOND FUND BALANCE  
FUND 444**



WORKERS CONSTRUCT FORMS FOR THE WESTERN TRIBUTARY PROJECT



UPPER WASHINGTON  
CONVEYANCE SYSTEM



LOWER DUCK CREEK  
DETENTION BASIN

**TABLE VI – FUND 287  
FACILITIES MAINTENANCE FUND  
SCHEDULE OF RESOURCES AND EXPENDITURES**

Fiscal Year Ending June 30, 2000

	<b>FY 1999-00</b> <i>Unaudited</i>	<b>FY 1998-99</b> <i>Prior Year Audited<sup>1</sup></i>
<b>RESOURCES:</b>		
Maintenance Work Program (From Fund 286)	\$ 6,237,463	\$ 0
Interest	104,210	0
Other	1,733	0
<b>Total Resources</b>	<b>\$ 6,343,406</b>	<b>\$ 0</b>
<b>EXPENDITURES:</b>		
Maintenance Work Program	4,937,125	\$ 0
Services and Supplies	82,302	0
<b>Total Expenditures</b>	<b>\$ 5,019,427</b>	<b>\$ 0</b>
<b>FUND BALANCE:</b>		
Beginning of Year	\$ 0	\$ 0
<b>End of Year</b>	<b>\$ 1,323,979</b>	<b>\$ 0</b>
Reserved Fund Balance <sup>2</sup>	906,492	\$ 0
Designated Fund Balance <sup>3</sup>	417,487	\$ 0
Undesignated Fund Balance	<b>\$ 0</b>	<b>\$ 0</b>



COLORADO AVENUE  
STORMDRAIN



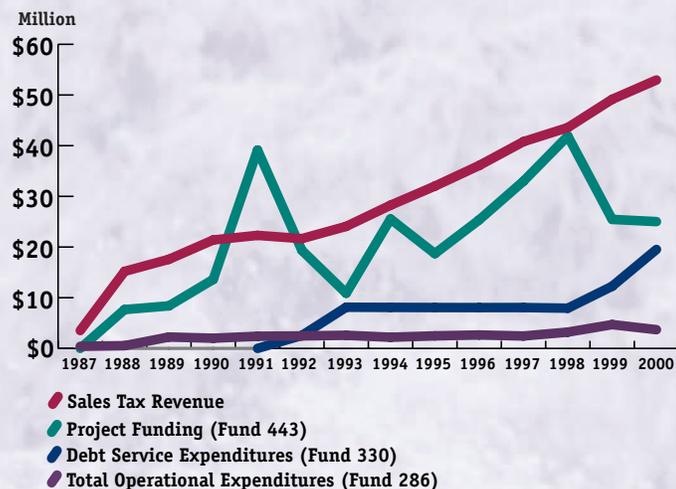
UPPER LAS VEGAS WASH  
DETENTION BASIN



UPPER WASHINGTON  
CONVEYANCE SYSTEM

- <sup>1</sup> Fund 287 was established in fiscal year 1999-00. Prior years' Maintenance Work Program activity was reported in Fund 443.
- <sup>2</sup> Reserved Fund Balance is the portion that the District has contractually obligated either through Interlocal Contracts or Purchase Orders.
- <sup>3</sup> Designated Fund Balance is the portion that the District has earmarked for future maintenance activities.

**SALES TAX REVENUE COMPARED TO:  
PROJECT FUNDING (FUND 443)  
OPERATIONAL EXPENDITURES (FUND 286)  
DEBT SERVICE EXPENDITURES (FUND 330)**



# MAINTAINING FLOOD CONTROL FACILITIES

The Board has adopted an Operations and Maintenance Program to establish performance standards and guidelines for the maintenance of flood control facilities located within the District's service area. Under this program, each of the separate entities in Clark County is provided with the funding necessary to maintain the regional flood control facilities within their respective jurisdictions. The District worked with the entities to develop Maintenance Work Plans and Budgets consistent with the requirements of the District's *Operations and Maintenance Manual*. On June 10, 1999, the Board approved the Maintenance Work Program (MWP) plans and budgets in the amount of \$5,049,863. On July 8, 1999, the Las Vegas Valley experienced a 100-year flood event that caused extensive damage to both public and private property. This event has impacted the current year's budget causing the entities to reprioritize facilities scheduled for maintenance in order to address flood-damaged facilities. Subsequently, the Board approved a supplemental MWP budget request by Clark County to address storm damages bringing the total budget authority for the Maintenance Work Program budget to \$6,237,463.

Work was performed using a combination of private contractors and entity maintenance staff. During this year, approximately 250 miles of channel were inspected and/or maintained throughout the service area of the District, along with several major storm drains, and 48 detention basins.



BOX CULVERTS ARE PUT IN PLACE FOR THE SPAGHETTI BOWL PROJECT



## MAINTENANCE WORK PROGRAM FY 1999-00

Entity	Amount Expended
Boulder City	\$ 86,541
Clark County	2,657,447
Henderson	763,208
Las Vegas	1,129,657
Mesquite	72,886
North Las Vegas	227,386
<b>TOTAL</b>	<b>\$ 4,937,125</b>

I-15 FREEWAY CHANNEL WORK AT WESTERN AND WALL



GOWAN NORTH DETENTION BASIN IS A MULTIUSE RECREATION FACILITY



REINFORCED CONCRETE PIPES

# FUNDING APPROVED DURING FY 1999-00

## BOULDER CITY

Buchanan Watershed Facilities <sup>2</sup> .....	(\$47,768)
North Railroad Watershed .....	40,000
Ville Drive Flood Control Facilities .....	150,000
West Airport Watershed <sup>2</sup> .....	(16,519)

## CLARK COUNTY

Colorado Avenue Storm Drain System <sup>1</sup> .....	2,600,000
Desert Inn Detention Basin and Collection System .....	100,000
Duck Creek - Hollywood Boulevard to Stephanie Street .....	900,000
Duck Creek - Hollywood Boulevard to Stephanie Street <sup>2</sup> .....	(200,000)
Duck Creek - Stephanie Street to Green Valley Parkway .....	488,000
Duck Creek - Sunset Road to Eastern Avenue .....	300,000
Durango Collector - Twain Avenue to Hacienda Avenue <sup>1&amp;2</sup> .....	(1,000,000)
Flamingo Wash - Interstate 515 to McLeod Drive .....	900,000
Flamingo Wash - McLeod Drive to Maryland Parkway .....	500,000
Flamingo Wash at Boulder Highway .....	1,200,000
Lakes Detention Basin, Collection System, and Outfall, Phase 1 <sup>2</sup> .....	(331,368)
Lower Duck Creek Detention Basin and Outfall Channel <sup>1</sup> .....	2,500,000
Rawhide Channel at Sage Brush Street .....	500,000
Red Rock Channel - Naples Branch .....	400,000
Tropicana Wash - Paradise Road to Koval Lane <sup>1&amp;2</sup> .....	(900,000)
Upper Duck, Central Duck, Lower Blue Diamond and Birdspring Detention Basins .....	500,000
Washington Collection System .....	49,000

## CLARK COUNTY OUTLYING

Hiko Springs Outfall Channel <sup>2</sup> .....	(800,000)
Searchlight Flood Control Improvements .....	7,500
Searchlight Flood Control Improvements <sup>2</sup> .....	(2,000)

## HENDERSON

C-1 Channel (Culvert) at Lake Mead Drive .....	150,000
Gibson Channel at Sunset Road .....	105,000
Mission Hills Detention Basin and Outfall <sup>1&amp;2</sup> .....	(500,000)
Mission Hills Western Interceptor <sup>2</sup> .....	(721,401)
Pittman Park Detention Basin <sup>2</sup> .....	(600,000)
Pittman Eastern Detention Basin .....	77,000



UPPER WASHINGTON  
CONVEYANCE SYSTEM



LOWER RED ROCK  
CHANNEL



PIONEER DETENTION  
BASIN OUTFALL

**LAS VEGAS**

Angel Park Detention Basin Expansion .....	729,500
Freeway Channel – Alta Drive to Sahara Avenue and Bypass Facility – Wall Street to Sahara Avenue.....	2,500,000
Freeway Channel – Alta Drive to Sahara Avenue and Bypass Facility – Wall Street to Sahara Avenue <sup>1</sup> .....	31,660,000
Freeway Channel North – Washington Avenue to Vegas Drive .....	10,000
Gowan North – Buffalo Branch.....	1,110,903
Gowan Outfall – Lone Mountain Branch (Allen Lane to Ferrell Street) .....	1,624,270
Las Vegas Wash – Rancho Drive System (Peak Drive to Lake Mead Boulevard) .....	140,000
Las Vegas Wash – Smoke Ranch System (Peak Drive from Torrey Pines Drive to Jones Boulevard) .....	55,000
Rancho Road System – Centennial Parkway to Rancho Detention Basin.....	1,986,930
Washington Avenue System – Interstate 15 to Martin Luther King Boulevard .....	10,000
Washington Avenue System – Sagman Street to Las Vegas Creek <sup>2</sup> .....	(24,571)



UPPER WASHINGTON  
CONVEYANCE  
SYSTEM

**NORTH LAS VEGAS**

“A” Channel – Lake Mead Boulevard to Alexander Road .....	225,000
Cheyenne Peaking Basin .....	3,974,000
Gowan Outfall – Craig Road to Channel .....	100,000
Lower Las Vegas Wash Detention Basin.....	100,000
Lower Las Vegas Wash Detention Basin <sup>2</sup> .....	(810,537)
Tributary to the Western Tributary at Alexander Road .....	841,000
Tributary to the Western Tributary at Craig Road .....	502,000
Vandenberg Detention Basin <sup>1&amp;2</sup> .....	(500,000)
Western Tributary of the Las Vegas Wash – Camino Al Norte to Ann Road .....	500,000
Western Tributary of the Las Vegas Wash – Phase 1 (Ann Road to Clayton Street) <sup>1&amp;2</sup> .....	(373,844)
Western Tributary of the Las Vegas Wash – Phase 2 (Ann Road to Centennial Parkway) <sup>1&amp;2</sup> .....	(1,975,490)
Western Tributary of the Las Vegas Wash – Phase 3 (Detention Basin to Camino Al Norte) <sup>1&amp;2</sup> .....	(559,290)



I-15 FREEWAY  
CHANNEL AT WESTERN  
AND WALL

**TOTAL FUNDING APPROVED,  
FY 1999-00 .....\$48,172,315**

<sup>1</sup> Indicates funding from the 1998 General Obligation Flood Control Bond, \$150 Million Issue

<sup>2</sup> Indicates a reduction in the funding allocation or a project closeout



WESTERN TRIBUTARY  
PHASE II

# PROJECTS COMPLETED DURING FY 1999-00

## Construction Completed

### CLARK COUNTY

Hiko Springs Outfall System .....	September 1999
Lakes Detention Basin & Outfall, Phase II (Buffalo Outfall - Desert Inn Road to Peace Way).....	May 2000
Las Vegas Beltway Channel, Section 7B, Durango Drive to Rainbow Boulevard* .....	August 1999
Las Vegas Beltway Channel, Section 8, Russell Road to Tropicana Avenue* .....	March 2000
Las Vegas Beltway Channel, Section 9, Tropicana Avenue to Hualapai Way* .....	May 2000
Rawhide Channel at Sage Brush Street .....	March 2000
Tropicana Wash, Paradise Road to Koval Lane.....	January 2000

### US Army Corps of Engineers Project

Lower Blue Diamond Channel .....	December 1999
Tropicana Detention Basin Outfall Channel .....	November 1999



PRECAST REINFORCED  
CONCRETE BOXES

### HENDERSON

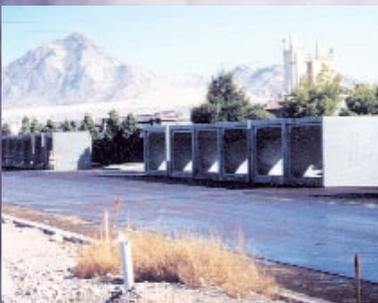
Black Mountain Detention Basin (Southwest C-1 Detention Basin) .....	March 2000
East C-1 Detention Basin (funded by SNWA) .....	January 2000
Pioneer Detention Basin/Outfall, Phase I - Warm Springs Road to Sunset Boulevard .....	May 2000

### LAS VEGAS

Freeway Channel System, Alta Drive to UPRR/Spaghetti Bowl ....	January 2000
Gowan North Channel, Phase II, (Durango Drive to Upper Gowan North Detention Basin) .....	April 2000

### NORTH LAS VEGAS

Western Tributary of the Las Vegas Wash, Phase I (Ann Road to Clayton Street) .....	October 1999
Western Tributary of the Las Vegas Wash, Phase II (Ann Road to Centennial Parkway) .....	June 2000
Western Tributary of the Las Vegas Wash, Phase III (Lower Las Vegas Wash Detention Basin to Camino Al Norte) .....	December 1999



PIONEER OUTFALL



UPPER WASHINGTON  
CONVEYANCE SYSTEM

\*Portions of the Red Rock and Blue Diamond Channels are included in the U.S. Army Corps of Engineers (Corps) Tropicana and Flamingo Washes Project. Clark County designed and constructed these facilities to meet Corps standards. The District and Clark County will seek reimbursement for the Federal proportional share of the facilities as identified in Section 211 of WRDA 1996.

# PROJECTS UNDER CONSTRUCTION AS OF JUNE 30, 2000

## Scheduled for Completion

### CLARK COUNTY

Boulder Highway Crossing of the Flamingo Wash .....January 2001  
 Colorado Avenue Storm Drain System.....June 2001  
 Desert Inn Detention Basin & Outfall .....August 2000  
 Durango Collector, Twain Avenue to Hacienda Avenue .....March 2001  
 Lakes Detention Basin & Outfall, Phase IIIA  
 (Detention Basin, Desert Inn Road,  
 and Durango Drive Storm Drain Systems) .....January 2001  
 Lower Duck Creek Detention Basin and Outfall Channel .....August 2000

### US Army Corps of Engineers Project

Blue Diamond Detention Basin .....November 2000  
 Las Vegas Beltway Channel, Section 10A,  
 Hualapai Way to Sahara Avenue .....October 2000  
 Lower Red Rock Complex.....September 2000

### LAS VEGAS

Freeway Channel, Alta Drive to Sahara Avenue and  
 Bypass Facility from Wall Street to Sahara Avenue .....August 2002  
 Gowan North Buffalo Branch (Channel),  
 Atwood Avenue to Lone Mountain Road .....October 2001  
 Rancho Road System, Centennial Parkway  
 to Rancho Detention Basin .....November 2000  
 Upper Washington Avenue Channel, Phase II  
 (Bonanza Road to UPRR) .....August 2000  
 Upper Washington Avenue Channel,  
 Veteran's Memorial Drive to UPRR .....February 2001

### NORTH LAS VEGAS

Vandenberg Detention Basin.....July 2000



TROPICANA  
OUTFALL CHANNEL



VETERAN'S  
MEMORIAL DRIVE



I-15 FREEWAY  
CHANNEL



EAST C-1  
DETENTION BASIN

# PROJECTS SCHEDULED FOR WORK IN FY 2000-01

**Estimated Completion Date**

## **BOULDER CITY**

North Railroad Watershed,

Veterans Memorial Drive Culvert, Construction .....September 2000  
Ville Drive Flood Control Improvements, Design.....November 2000

## **CLARK COUNTY**

Duck Creek at Robindale Road, Construction .....August 2001  
Duck Creek Channel, Sunset Road to Eastern Avenue, Design.....August 2000  
Duck Creek,

Emerald Avenue to Stephanie Street, Construction .....September 2001  
Duck Creek, Hollywood Boulevard to Stephanie Street, Design December 2000  
Duck Creek, Stephanie Street to Green Valley Parkway, Design December 2000  
Flamingo Diversion, Jones Branch, Design .....August 2000  
Flamingo Wash, I-515 to McLeod Drive, Design .....December 2000  
Flamingo Wash, McLeod Drive to Maryland Parkway, Design .....January 2001  
Goodsprings Flood Control Improvements, Phase I, Design ....September 2000  
Indian Springs Flood Control Improvements, Design .....October 2000  
Lakes Detention Basin & Outfall, Phase IIIB (Durango

Collector - Sahara Avenue to Desert Inn Road), Construction ..June 2001  
Muddy River - Moapa Valley, Design .....July 2003  
Orchard Detention Basin, Design.....January 2002  
Red Rock Channel, Naples Branch, Design.....November 2000  
Upper Duck, Central Duck, Lower Blue Diamond,  
and Bird Springs Detention Basins, Right-of-Way.....February 2001  
Washington Collection System, Design .....August 2000  
Washington Collection System, Construction .....November 2001  
Windmill Wash Outfall System, Design .....January 2001

## **US Army Corps of Engineers Project**

F-1 and F-2 Debris Basins and Channels, Design .....May 2001  
Lower Flamingo Diversion Channel, Phase I (Tropicana  
Detention Basin to Jones Boulevard), Design .....August 2000  
Lower Flamingo Diversion Channel, Phase I (Tropicana  
Detention Basin to Jones Boulevard), Construction .....October 2001  
R-4 Debris Basin and Channel, Design.....December 2000  
R-4 Debris Basin and Channel, Construction .....February 2002  
Red Rock Detention Basin Erosion Control  
and Red Rock Outfall Channel, Construction.....August 2001  
Upper Flamingo Diversion Channel, Phase II (Jones Boulevard  
to Flamingo Detention Basin), Design .....August 2001  
Upper Flamingo Diversion Channel, Phase II (Jones  
Boulevard to Flamingo Detention Basin), Construction ..November 2002

## **HENDERSON**

Boulder Highway Channel, Design .....July 2001  
C-1 Channel/Upper and Middle Reaches, Design .....September 2000  
C-1 Channel/Upper and Middle Reaches, Phase I  
(Burkholder Boulevard to Boulder Highway), Construction.....June 2002



ANGEL PARK  
DETENTION BASIN



I-15 FREEWAY CHANNEL



WESTERN BELTWAY

Gibson Channel at Sunset Road, Design .....August 2001  
 Pioneer Detention Basin  
     (Sunset Detention Basin), Design and Right-of-Way.....September 2000  
 Pittman Eastern Detention Basin, Design .....July 2000  
 Pittman Eastern Detention Basin, Construction .....August 2001  
 Pittman-Pecos West Conveyance  
     and Eastern Avenue Tributary, Design .....December 2001  
 South Pittman Detention Basin, Construction .....November 2000  
 Stephanie Channel Lower Reach, Design .....August 2001

**LAS VEGAS**

Angel Park Detention Basin Expansion, Construction.....June 2001  
 Ann Road Channel West, Allen Lane to Rancho Drive, Design ..February 2001  
 CAM-10 Detention Basin, Design .....June 2001  
 CAM-10 Detention Basin, Construction .....August 2002  
 Freeway Channel North (Washington Avenue/  
     I-15 to Martin Luther King Boulevard), Design .....August 2000  
 Gowan North - Buffalo Branch (Gowan Road and  
     Buckskin Avenue), Construction .....February 2001  
 Gowan North Channel,  
     Alexander Road to Lone Mountain Road, Design.....August 2000  
 Gowan Outfall, Lone Mountain Branch,  
     (Allen Lane to Ferrell Street), Construction .....May 2001  
 Gowan South Detention Basin Expansion, Design.....July 2000  
 Gowan South Detention Basin Expansion, Construction .....August 2001  
 Las Vegas Wash - Rancho Drive System, Design ..... November 2000  
 Las Vegas Wash - Smoke Ranch System, Design.....July 2000  
 Owens Avenue System - Rancho Drive to I-15, Design .....February 2001  
 Rancho Road System, Durango Drive to  
     US-95 Interchange, Construction .....February 2002



I-15 FREEWAY CHANNEL

**MESQUITE**

Abbott Wash Channel, I-15 to Virgin River, Design .....August 2001



SPAGHETTI BOWL

**NORTH LAS VEGAS**

“A” Channel - Lake Mead Boulevard to Alexander Road, Design February 2001  
 Centennial Parkway Channel East, Design .....August 2001  
 Cheyenne Peaking Basin, Design .....February 2001  
 Gowan Outfall, Craig Road to Channel, Design.....November 2000  
 Las Vegas Wash - Craig Road to Elkhorn Road, Design.....August 2001  
 Las Vegas Wash -  
     Lake Mead Boulevard to “N” Channel, Design.....August 2000  
 Las Vegas Wash - Losee Project, Design .....August 2001  
 Las Vegas Wash - “N” Channel to Alexander Road, Design .....August 2000  
 Simmons Street Channel, Design .....January 2002  
 Tributary to the Western Tributary at Alexander Road, Design ....August 2001  
 Tributary to the Western Tributary at Craig Road  
     (“A” Channel Craig Confluence), Design .....December 2000  
 Western Tributary of the Las Vegas Wash, Phase IV (Lower  
     Las Vegas Wash Detention Basin to Clayton Street), Design ..August 2000



TROPICANA WASH  
 AT KOVAL AND HARMON

# PARTNERING WITH THE FEDERAL GOVERNMENT

## U.S. ARMY CORPS OF ENGINEERS TROPICANA AND FLAMINGO WASHES PROJECT

The Tropicana and Flamingo Washes Project, which is located in the southwestern portion of Las Vegas Valley, includes two detention basins, modifications to two existing detention basins, four debris basins, 27.7 miles of primary channel, a network of lateral collector channels, and desert tortoise mitigation. In February 1995, the District, Clark County, and the U.S. Army Corps of Engineers (Corps), executed a Project Cooperation Agreement (PCA) that defines responsibilities of each party for the implementation, planning, funding, design, construction, operation and maintenance of a \$271 million network of flood control facilities. The District hopes to secure \$203 million in federal funding through this agreement, and is responsible for the local sponsors' financial obligation of \$68 million. The District's role in the project is to provide project management and funding for approximately 25 percent of total project costs. Clark County will acquire rights-of-way, provide surveying and engineering services for utility relocations and bridge crossings, and operate and maintain the facilities upon completion of project. The Corps will provide project management, design, construction management, and funding for approximately 75 percent of total project costs.



LOWER BLUE DIAMOND  
CHANNEL



BLUE DIAMOND  
DETENTION BASIN

Significant progress was made on the Tropicana and Flamingo Washes Project during fiscal year 1999-2000. The project is approximately 50 percent complete and is scheduled for completion in fiscal year 2006-2007. This past year all parties made substantial efforts in the implementation of the overall project.

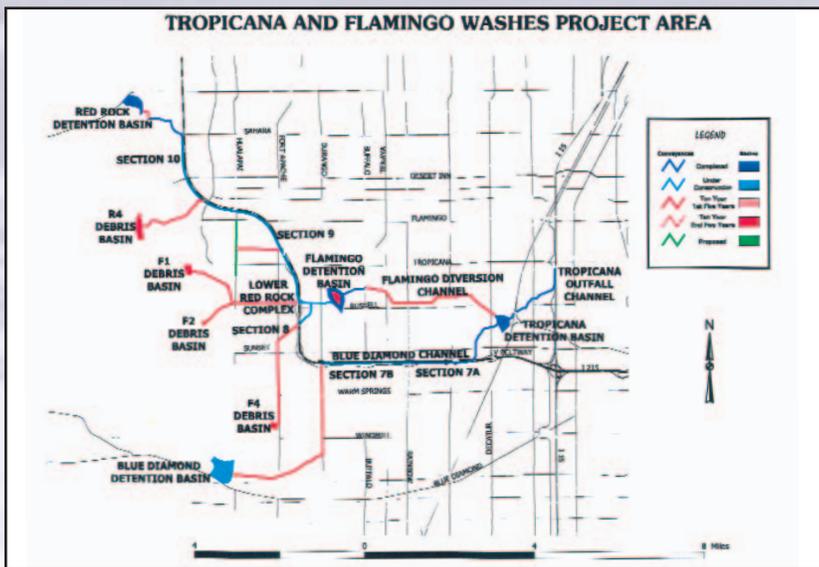
Five project features are in predesign: the rights-of-way were acquired on one feature; four features have rights-of-way and/or utility relocations underway; the design was completed on another feature; and an additional four project features are in design.

The Corps completed construction of two projects (Lower Blue Diamond Channel, Tropicana Outfall Channel), and started construction of three others (Section 10A, Lower Red Rock Complex, Blue Diamond Detention Basin). Clark County completed construction of two projects that coincide with the beltway (Section 7B, Section 8), and is partially complete with another feature (Section 9).

### SIGNING OF THE SECTION 211 AGREEMENT



REINFORCED CONCRETE  
PIPES



In October 1999, Congress appropriated \$29 million for federal fiscal year 2000 for the Tropicana and Flamingo Washes Project, increasing total federal appropriations to \$100 million for important flood control improvements. By securing federal appropriations, the District leverages revenue from local sales tax and accelerates implementation of needed flood control improvements. In March 2000, the District prepared testimony seeking continued appropriations for federal fiscal year 2001. The District presented testimony to Senate and House of Representatives subcommittees on Energy and Water Development and the Nevada delegation seeking \$28 million for construction appropriations and \$1.5 million for Section 211 of the Water Resources Development Act of 1996 (WRDA 96) appropriations.

The District, Clark County, and the Corps continue to closely coordinate design and construction of the Las Vegas Beltway and adjacent flood control facilities. The Beltway alignment transects the Tropicana and Flamingo Washes watershed, and consequently portions of the Beltway channels are part of the federally authorized project. In June 1996, Clark County accelerated Beltway implementation, and concluded they must design and construct portions of Blue Diamond and Red Rock Channels in advance of the Corps due to Corps funding constraints. Through the Nevada congressional delegation, the District included Tropicana and Flamingo Washes Project in Section 211 of WRDA 96 with the goal of receiving reimbursement from the Corps for costs of the Beltway channels, as well as other flood control improvements designed and constructed by local sponsors in advance of the Corps.

On December 17, 1999, the District, Clark County, and the Corps executed an amendment to the PCA for Tropicana and Flamingo Washes Project that modifies the PCA to include provisions of Section 211 of WRDA 96. Section 211 authorizes local sponsors to design and construct discrete features of the federally authorized project in advance of the Corps and receive reimbursement of the federal share of the cost of the feature. This is the first such agreement to be executed by a local sponsor and the Corps. Local sponsors pursued execution of this agreement because the Corps delayed completion of the project in 1996 by five years, and rapid private development within the watershed required local sponsors to design and construct flood control improvements to provide flood protection. Local sponsors have funded and completed approximately \$2,111,711 of work to date pursuant to Section 211 of WRDA 96. Local sponsors have funded and partially completed an additional \$20 million of Section 211 work – primarily flood control channels located parallel and adjacent to Las Vegas Beltway where it transects the Tropicana and Flamingo Washes watershed. Local sponsors plan to seek reimbursement from the Corps for these costs in the future.



LOWER BLUE DIAMOND CHANNEL



BLUE DIAMOND CHANNEL



RED ROCK CHANNEL

# ANALYZING FLOOD CONTROL BENEFITS

To determine the quantifiable benefits of flood control in Clark County, in 1998 the District initiated a study looking at a public benefits to public cost analysis. The study included flood control projects completed as of June 30, 1998 and the cost to design and construct those facilities.

This 1998 study also took into consideration that, since the District's inception, 7,960 acres, or 12 square miles of land, had been removed from the floodplain. Removal of structures from the FEMA designated floodplain has allowed for approximately \$4.9 million in flood insurance premiums to be saved each year.

In addition, the analysis included several economic and non-economic factors including inundation reduction, savings in flood proofing costs, transportation costs savings and flood insurance overhead savings. The analysis did not include the benefits arising from saved lives and reductions in flood-related injuries, protection of Southern Nevada's tourism industry, economic benefits of the District's capital construction program, property value enhancements and the protection of property values, and the economic opportunities, land planning and enhanced usage of land.

Based on the flood control improvements completed as of June 30, 1998, the analysis showed that for each public dollar expended to improve flood protection, a public benefit of \$2.20 was realized, or a benefit-cost ratio of 2.2 to 1.

The benefit cost analysis determined that the public benefits associated with flood control improvements have contributed to the safety and welfare of Clark County's residents and will continue to ensure the vitality of the local and state economy, as future flood projects are completed.



DUST CONTROL ON TRENCH EXCAVATION



COLORADO AVENUE STORMDRAIN



HIKO SPRINGS DETENTION BASIN OUTFALL



RED ROCK DETENTION BASIN OUTFALL

# MASTER PLANNING

The first Regional Flood Control District Master Plan was adopted in 1986 by the District, the County, and each of the local governments within the County.

The Master Plan includes detailed hydrologic modeling of each populated watershed in Clark County along with land use, existing facilities, soil, and topographic data. The recommendations in the plan include descriptions of the proposed flood control facilities, cost estimates, and suggested phasing. Typical facilities are detention basins, channels, bridges, and storm drains.

Periodic Master Plan Updates are required by law to account for changes in land use, the construction of new facilities, and to account for improved hydrologic and hydraulic data. A Master Plan Update for Moapa Valley, Mesquite and Bunkerville was initiated in fiscal year 1999-00 and is scheduled for adoption in fiscal year 2000-01.

Per statute, Master Plan amendments and changes allow adaptations to reflect modifications to the watershed and improvements to the plan. Amendments generally involve an addition, deletion, or substantial modification to the plan and must be approved by the city or county proposing the amendment. A change differs from an amendment in that a change in the size, type, or alignment of a facility may be authorized by the Board if the change is hydraulically similar, is the most cost-effective means, and does not adversely affect implementation of the plan. Since adoption of the most recent Las Vegas Valley Master Plan Update, several changes and amendments have been processed.

In fiscal year 1999-00, two amendments and one change to the Master Plan were processed: the City of Las Vegas requested a Master Plan Amendment to the Rancho Drive System within the Central Basin. The amendment added conveyances in Peak Drive and Smoke Ranch from Jones Boulevard to Rancho Drive, and in Smoke Ranch Drive from Rancho Drive to the Carey Lake Mead Detention Basin which will require expansion. The City of Las Vegas requested a Master Plan Amendment to the Summerlin West Planning Area within the Gowan Hydrographic Area. Summerlin has proposed the amended facilities plan to better fit with its master drainage plan. The amended plan is consistent with the Master Plan for the Gowan Hydrographic Area outside of the Summerlin West Planning Area. The amended facilities will be constructed at no cost to the District during development of the Summerlin West Planning Area. Clark County requested a Master Plan Change to the Windmill Wash Outfall in the Town of Bunkerville. The Windmill Wash Detention Basin Outfall System was realigned along a more direct northern route at an estimated 18 percent cost savings.



I-15 FREEWAY CHANNEL



DESERT INN  
DETENTION BASIN



TRENCH  
EXCAVATION



DUCK CREEK  
DETENTION BASIN

# FLOODPLAIN MANAGEMENT

The elements of a comprehensive floodplain management program include regulations, the community rating system, land development reviews, drainage standards, and floodplain mapping. 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 1999-00.

## REGULATORY PROGRAM

The National Flood Insurance Program (NFIP), administered by the Federal Emergency Management Agency, has established rules and requirements designed to address the many diverse issues that encompass flood insurance and flood hazard mitigation. In November 1990, Clark County and the incorporated communities within Clark County adopted the Revised Uniform Regulations for the Control of Drainage in accordance with the Nevada Revised Statutes (NRS Chapter 543). These Regulations are designed to protect the health, safety, and welfare of residents within the District from the hazards associated with flooding. The Regulations provide the minimum regulatory control necessary for the communities and the District to: 1) promote comprehensive floodplain management; 2) require safe flood-prone area development; 3) foster sound development policies and construction procedures; and 4) reduce storm water runoff damage to public and private property.

By meeting and exceeding the NFIP requirements, the Uniform Regulations for the Control of Drainage ensure that the 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 flood.

## THE COMMUNITY RATING SYSTEM

Initiated in 1990, the Community Rating System (CRS) reduces flood insurance premiums to reflect those community activities that are above and beyond the National Flood Insurance Program's minimum standards. The objective of the CRS is to reward insured residents for their community's continued involvement, as well as provide an incentive for new flood protection activities. Flood insurance premiums are reduced when communities: 1) promote activities that reduce flood damage to existing structures; 2) regulate areas not identified as special flood hazard areas; 3) protect new buildings beyond the minimum NFIP standards; and 4) actively assist insurance agents, realtors, and residents with their understanding of the flood issues affecting their real property interests.

Nationwide, of the 18,500 communities participating in the NFIP, only 875 community flood management programs were recognized by CRS verification audits. In a cooperative effort with the District, Clark County, the City of Henderson, the City of Las Vegas, and the City of North Las Vegas were among the communities to realize a five to 15 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, re-mapping 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.



TROPICANA  
DETENTION BASIN



TUNNEL WORK AT  
WESTERN AND WALL  
FOR I-15 FREEWAY  
CHANNEL



DURANGO COLLECTOR

## 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 *Policies and Procedures Manual*, both adopted pursuant to the Nevada Revised Statutes. The entities are responsible for the review and approval of all drainage plans and studies within their boundaries. The entities must submit development proposals to the District for review if the development has regional flood control significance, meaning those facilities, land alterations, portions of the natural drainage system, and regulatory actions that impact the implementation of the Master Plan or lie within Special Flood Hazard Areas. In accordance with the District's policies and procedures, staff will commence review once the entity approval is obtained for the pending studies.

This past year the District received 394 studies and 289 addenda related to the development of private properties deemed to have regional significance. Reviews by the District resulted in the issuance of 339 concurrence letters and 20 related comment letters.

## DRAINAGE STANDARDS

The District and the entities have adopted the *Hydrologic Criteria and Drainage Design Manual* that presents drainage standards and criteria for the Clark County area. It provides uniformity in drainage planning and design within the District, improves the urban environment, and provides a sound basis for the expenditure of future private, public and regional monies. The Manual is used by governmental designers and reviewers, and consulting engineers.

Criteria for the analysis and design of flood control facilities in arid areas are dynamic. A committee of representatives from the entities' Public Works Departments, the Southern Nevada Home Builders Association, and the American Civil Engineers Council initiated the review and update of the Manual in fiscal year 1996-97 to provide more clarity and address advances in state-of-the-art hydrologic and hydraulic techniques. The revised manual was adopted and distributed in August 1999.

## FLOODPLAIN MAPPING

All six local governments in Clark County are currently participating in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP). In participating communities, residents are eligible for federally guaranteed home mortgages and federally subsidized flood insurance. In order 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 hazards 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 the incremental achievement of our objective, the hydrologic data (flow rate information) required for restudy of the entire Valley was developed in 1991. Due to the size and complexity of performing a restudy of flood hazard areas for the entire county, each area is studied individually over time. Many areas have already been restudied—resulting in the removal of approximately 22.82 square miles or 14,606 acres from identified 100-year flood zones. Studies are on-going for Lower Duck Creek from Las Vegas Wash to Robindale Road; Blue Diamond Wash from UPRR to Duck Creek; C-1 Channel Watershed; and Mesquite's Abbot and Pulsipher Washes.

In fiscal year 2000-01, the District will continue to work closely with the entities and FEMA to further the restudy efforts. FEMA's involvement, from both a financial and a technical review standpoint, is appreciated.

**Communities are required to administer the NFIP within their boundaries. To determine if property is located in a Special Flood Hazard Area, as determined by FEMA, contact the appropriate entity at:**

Clark County .....455-4605  
Boulder City .....293-9200  
City of Henderson .....565-2385\*  
City of Las Vegas .....229-6569\*  
City of Mesquite .....346-5295  
City of North Las Vegas 633-1223

\* Recorded message/response center

THE DISTRICT AND CLARK COUNTY'S PUBLIC COMMUNICATIONS TEAM CO-PRODUCED A PUBLIC SERVICE ANNOUNCEMENT TO ENCOURAGE RESIDENTS TO PROTECT THE ENVIRONMENT



RED ROCK DETENTION BASIN



WESTERN TRIBUTARY OF LAS VEGAS WASH



LAKES DETENTION BASIN WILL BE A MULTIUSE FACILITY

## KEEPING OUR WATERS CLEAN

In accordance with the Federal Water Pollution Control Act, the Clark County Regional Flood Control District, as lead agency, was granted a National Pollutant Discharge Elimination System (NPDES) permit in December 1990. The permit was issued by the Nevada Division of Environmental Protection (NDEP) to eight co-permittees representing the various city, county, and state agencies owning and operating separate municipal storm sewer systems in the Las Vegas Valley. The NPDES permit authorizes discharge from stormwater outfalls to the Las Vegas Wash. Additionally, the permit outlines a schedule of monitoring requirements, best management practices, and conditions designed to promote the reduction of pollutants in stormwater discharges.

The District contracted with a professional engineering firm to assist in the monitoring, laboratory analysis, reporting, and program development efforts required by the permit. Ten specific program areas must be addressed and summarized in an annual report to NDEP. The District implements a wet-weather monitoring plan using automated monitoring equipment that was installed at the six major stormwater outfalls to the Las Vegas Wash. In 1997, an additional monitoring station was added on the Las Vegas Wash in cooperation with the U.S. Geological Survey (USGS). A considerable number of storm events have been monitored since the equipment was installed in 1992, and our water quality database is growing as new data is obtained.

An informational brochure was distributed through the various co-permittees to inform the public of proper household hazardous waste disposal methods and existing programs. NDEP presented several NPDES regulation seminars with the District. Through these seminars, information about NPDES Stormwater General and Municipal Permits was disseminated to private and public engineers and the construction community. Educational computer programs continued to be installed at local elementary schools. Through graphics and puzzle games, the children learn how their actions can affect the quality of stormwater that eventually reaches Lake Mead, our source of drinking water. Letters and flyers are also being sent to all local homeowners' associations and mobile businesses to let them know how they can help keep stormwater clean. In addition, pet pooper scoopers, that include a message about protecting the environment, are being distributed at several community events. A television public service announcement about stormwater quality and a stormwater website are being produced. The District is also an active member of the Lake Mead Water Quality Forum and the Las Vegas Wash Coordination Committee.

## MONITORING THE WEATHER

The District, in cooperation with the U.S. Geological Survey (USGS) and the National Weather Service (NWS), is continuing to implement a Flood Threat Recognition System (FTRS) throughout the Clark County area. The system includes a network of strategically located field stations which automatically report data from more than 250 meteorologic sensors in real-time to computerized base stations operated by each of the cooperating agencies. During the fiscal year, 11 new stations were installed, and equipment was re-installed at one station that had been subject to repeated instances of vandalism, bringing the total number of field stations in operation to 111.

The FTRS provides valuable information on water levels, rainfall, and other meteorologic parameters. Information on wind speed and direction from 24 FTRS weather stations helps the NWS track severe storms in the Clark County area and issue more timely and site-specific weather statements than were previously possible. The District enhances its own ability to identify and track potential flood producing storms by subscribing to a weather data service which provides access to satellite images and the NWS's Doppler radar system. The District's fully-automated base station notifies staff, both in and outside of the District's offices, of potentially dangerous situations. Using computer modem linkups to the base station, staff can then assess the potential for flooding and begin alerting public works and other emergency response personnel. The information provided by this system helps emergency response teams to more effectively direct their limited resources. The District maintains 11 modems to provide local governmental agencies, the news media and staff with access to the FTRS.

The first field stations were installed in 1987, and were jointly funded by the USGS and the District. Since 1987, the District has steadily increased the coverage provided by the field stations by providing funding to the USGS for the installation of new stations, as well as by installing additional stations on our own. Ten of the field stations are maintained by the USGS under the terms of a joint funding agreement with the District. The District maintains the remaining 101 stations.

During the 1999-2000 fiscal year, the District began providing access to the Flood Threat Recognition System data via the world wide web ([www.ccrfcd.org](http://www.ccrfcd.org)). Citizens can now access both historic and real-time rain and weather data collected from any of the District's field stations.

## ENHANCING INFORMATION SYSTEMS

The District's website ([www.ccrfcd.org](http://www.ccrfcd.org)) is designed to provide information to the public about the District, current and historical rainfall data, facility maps, and flood emergency information.

Data conversion and maintenance continue to be the foundation of the District's Geographic Information System (GIS) efforts. The District's GIS staff maintains information on 100-year flood zones and provides that information to other entities, agencies, and customers through the County's GIS central data repository. Staff also responded to hundreds of requests for custom maps as well as completing GIS-based desktop and web-based applications.

During the past year, major steps were taken by the Information Technology (IT) staff in integrating decision support tools and web-based applications into staff work processes. Among the highlights were 1) the creation of a web-based flood zone application allowing examination of 100-year flood zone information by flood control staff working for the numerous entities within Clark County, 2) the creation of a document imaging and management system which gives District staff desktop access to hundreds of current and historical documents, and 3) enhancement of the FloodView application which offers District employees a visual interface to project alignments, land information, and 100-year flood zone data.

Future IT projects will include completion of numerous web-based applications that will allow entities to enter District project data online and will provide the public with a graphical view of project alignment and other information. New GIS software will allow the IT staff to develop applications that will give users immediate answers when querying large volumes of data resulting in a considerable savings of staff time and labor.



**RFCD CHAIRMAN LARRY BROWN SPEAKS TO REPORTERS AT A PRESS CONFERENCE KICKING OFF FLASH FLOOD SEASON**

# FULFILLING ENVIRONMENTAL REGULATIONS

The District continues to assist local governments in their efforts to obtain rights-of-way and environmental permits from regulatory agencies. Throughout its history, the District has nurtured its relationships with the Bureau of Land Management, United States Fish and Wildlife Service, and the United States Army Corps of Engineers. In May 1999, the District hosted an environmental permitting workshop that was attended by more than 100 representatives of the local governments as well as the engineering and environmental consulting communities. The goal of the workshop, which included presentations by the Regulatory Section of the U.S. Army Corps of Engineers and the Nevada Department of Environmental Protection, was to provide information on permit requirements for the construction and maintenance of flood control projects.

## INFORMATION

COPIES OF THE FOLLOWING DOCUMENTS ARE AVAILABLE TO THE PUBLIC (SOME AT COST):

1. HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL
2. UNIFORM REGULATIONS FOR THE CONTROL OF DRAINAGE
3. FLOOD CONTROL DISTRICT MASTER PLANS
4. TEN-YEAR CONSTRUCTION PROGRAM
5. POLICIES AND PROCEDURES MANUAL
6. FLOOD CONTROL & SAFETY BROCHURE
7. OPERATIONS AND MAINTENANCE MANUAL
8. 1991 FLOOD INSURANCE STUDY HYDROLOGY REPORT

## FOR MORE INFORMATION, PLEASE CONTACT:

**CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT**  
600 SOUTH GRAND CENTRAL PARKWAY, SUITE 300  
LAS VEGAS, NEVADA 89106-4511  
(702) 455-3139  
(702) 455-5195

(RECORDED INFORMATION ABOUT FLOOD SAFETY, INSURANCE, AND MAPS)

**OFFICE HOURS:**  
MONDAY THROUGH FRIDAY  
8:00 A.M. TO 5:00 P.M.

**DESIGN & PRODUCTION**  
COMSERV DESIGN GROUP

**PRINTING**  
HAIG'S PRINTING

**PHOTOGRAPHY**  
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**SPECIAL THANKS**  
FOR PHOTOGRAPHS COURTESY OF:  
LAS VEGAS SUN  
LAS VEGAS REVIEW-JOURNAL  
VTN-NEVADA  
CITY OF LAS VEGAS PUBLIC WORKS  
HEATHER MARIE PHOTOGRAPHY  
GERI KODY

# KEEPING THE COMMUNITY INFORMED

The District's Public Information Program focuses on educating the public about the dangers of flash flooding and informing the community about the progress of flood control in Clark County.

This past year, the Board of Directors designated June as "Flash Flood Awareness Month" and held a press conference kicking off Flash Flood Season. The event was covered by all major news media and helped increase public awareness of a heightened potential for flash floods during the summer months.

The District also places special emphasis on educating children about the dangers of playing in washes and other flood control facilities. This past fiscal year, presentations were made to almost 2,800 children in 33 area schools. Staff members also spoke to several community organizations; were guest speakers on television and radio shows; and were exhibitors at several large community events.

The District also conducts a Flood Safety Advertising Campaign that warns motorists of the dangers of flash flooding via billboards and bus stop shelters, and through flood safety messages airing on radio traffic reports.

Flood safety information was disseminated to the public through several publications. Sponsorship of the Fox 5 Kids Club was continued to reach younger audiences. Anderson Dairy printed and distributed more than 250,000 milk cartons with a flood safety message at no charge to the District, and a flood safety and informational brochure was mailed to approximately 30,000 realtors, lenders and insurance agents in Clark County.

The District also continued production of The Flood Channel, an award-winning informational news program airing on two local government access stations, channels 2 and 4, and on cable channels in several outlying areas. This program was created to inform the public about what the District does, to heighten public awareness of flash flooding, and to highlight the benefits and progress of flood control in the community.