

For information, please contact:



600 South Grand Central Parkway
Suite 300
Las Vegas, NV 89106-4511
702.455.3139

Office Hours:
Monday through Friday
8:00 a.m. to 5:00 p.m.

www.ccrfcd.org

CLARK COUNTY

R E G I O N A L F L O O D C O N T R O L D I S T R I C T

ANNUAL REPORT 2002/03

LAS VEGAS VALLEY

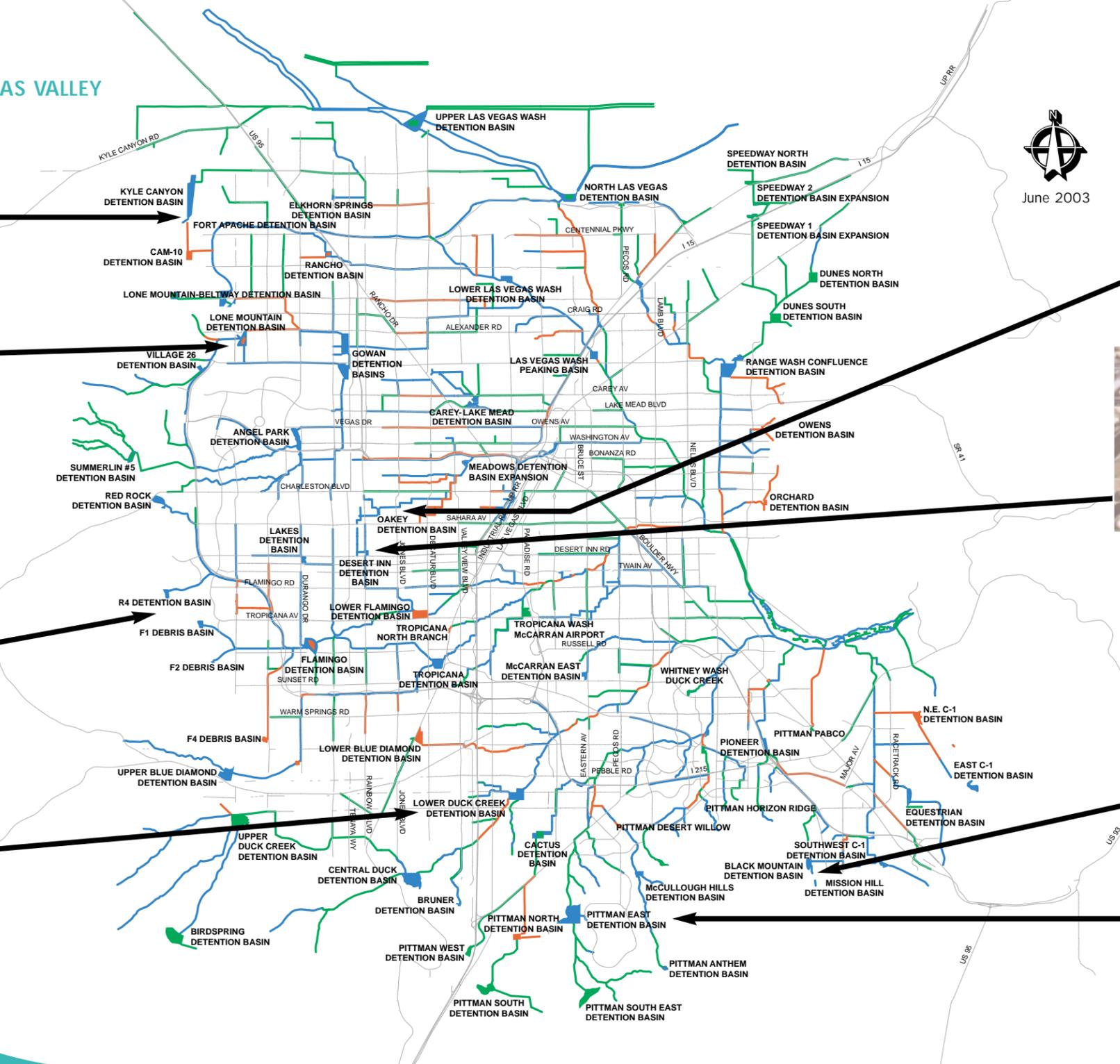


June 2003

LEGEND

CONVEYANCES	BASINS
COMPLETED & UNDER CONST	BASINS
TEN YEAR PROGRAM	BASINS
PROPOSED	BASINS

NOTE:
10-Year Facilities may include Pre-design Studies or R-O-W Acquisition.



Kyle Canyon Detention Basin



Lone Mountain Detention Basin



R-4 Detention Basin



Lower Duck Creek Detention Basin



Oakey Detention Basin



Desert Inn Detention Basin



Black Mountain Detention Basin



Pittman East Detention Basin



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BOARD OF DIRECTORS

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. The Board of Directors as of June 2003 were:



Lawrence L. Brown III
RFCD Chairman
Councilman, City of Las Vegas



Chip Maxfield
RFCD Vice-Chairman
Commissioner, Clark County



Shari Buck
Councilman
City of North Las Vegas



Scott Fisher
Councilman
City of Mesquite



James B. Gibson
Mayor
City of Henderson



Michael Mack
Councilman
City of Las Vegas



Bryan Nix
Councilmember
City of Boulder City



Bruce L. Woodbury
Commissioner
Clark County

NEW MEMBERS as of July 2003



Karla Burton
Councilmember
City of Boulder City



Bill Nicholes
Mayor
City of Mesquite

FORMER MEMBER July 1997 – November 2002



Cresent Hardy
Councilman
City of Mesquite

CHAIRMAN'S MESSAGE *Larry Brown*

Flood control construction has moved steadily forward during the past year. Approximately 25 flood control improvements have been constructed or are currently under construction bringing additional flood protection to our community. Some of these include improvements to the Flamingo Wash at Spencer Street, several areas along Duck Creek, and work being done currently on Duck Creek and Pittman Wash at Boulder Highway.

Currently there are 62 detention basins and 350 miles of channels and underground storm drains helping collect flood flows and convey that water safely through the Valley and the outlying communities.

In August 2003, the northwest part of the Valley saw significant rainfall. Several homes were damaged, 50 swift water rescues were performed and nine people were rescued by helicopter from their vehicles. While this area was hard hit by the storm, we know that the detention basins and channels near the storm center worked as they were designed. During the storm, enough floodwater was captured to fill three average-size swimming pools each second. Over 7,000 pools could have been filled by the flood control facilities.

The facilities in place helped lessen the damage to these homes and businesses, and it also makes clear the need to continue to build flood control improvements as quickly as possible. The District moved forward in 2003 to secure an additional \$200 million in borrowing authority to move

projects into design and construction quicker than would be possible solely based on our sales tax revenue. This additional money, along with sales tax dollars, will result in approximately 46 new projects being funded for design and another 32 improvements funded for construction in 2003-04.

The Federal Government, through the U.S. Army Corps of Engineers, is also helping with local flood control infrastructure. To date, the Federal Government has appropriated \$176 million for work on the Tropicana and Flamingo Washes. We hope to receive another \$40 million in the next two years to speed completion of improvements in this area.

The District has more than two decades to go before its Master Plan is completed—meaning all the flood control improvements needed to protect our homes, families and businesses from floodwaters. We are estimating another 25-30 years to construct these facilities at a cost of \$1.7 billion.

While today we have more flood protection than ever in the Valley's history, we still have more work to be done. At all times, and especially during Flash Flood Season, residents need to take safety precautions and never drive through flooded roadways. Be aware and be safe.



Larry Brown
RFCD Chairman
City of Las Vegas Councilman





GENERAL MANAGER'S MESSAGE

Gale Fraser

The past few months have reinforced just how unpredictable weather can be in our Valley. In 2002, official rainfall amounts recorded by the National Weather Service (NWS) measured only 1.44 inches for the entire year, far less than our average rainfall of 4.49 inches. Yet in the first eight months of 2003, the area has already received 3.94 inches of rain at the NWS gage at McCarran Airport. And during the August storm that hit the northwest part of the Valley, five of the Regional Flood Control District's gages recorded more than 2 inches of rain in a 90-minute period. The storm caused flooding damage to homes and businesses and several people were rescued from their stranded cars.

While we don't know where it will rain next, we do know that rain and severe weather will happen again. The District and the entities are committed to moving forward with flood control improvements as quickly as possible. The District is currently securing an additional \$200 million to accelerate the design and construction of detention basins, channels, and storm

drains all throughout Clark County. In total, close to 80 new projects will be designed or under construction in the next year, bringing more flood protection to the community.

Our partnership with the Federal Government and the U.S. Army Corps of Engineers continues to benefit Southern Nevada. Last year, \$45 million was appropriated for work on the Tropicana and Flamingo Washes Project – the largest amount ever received in the project's history. This is due to the strong backing of our Nevada Delegation and their fight for federal dollars for the community. To date, \$176 million has been provided from the Federal Government for the completion of flood improvements on the Tropicana and Flamingo Washes. We anticipate another two years before this project is complete, and we will continue to seek funding from Washington, D.C. for an additional \$40 million.

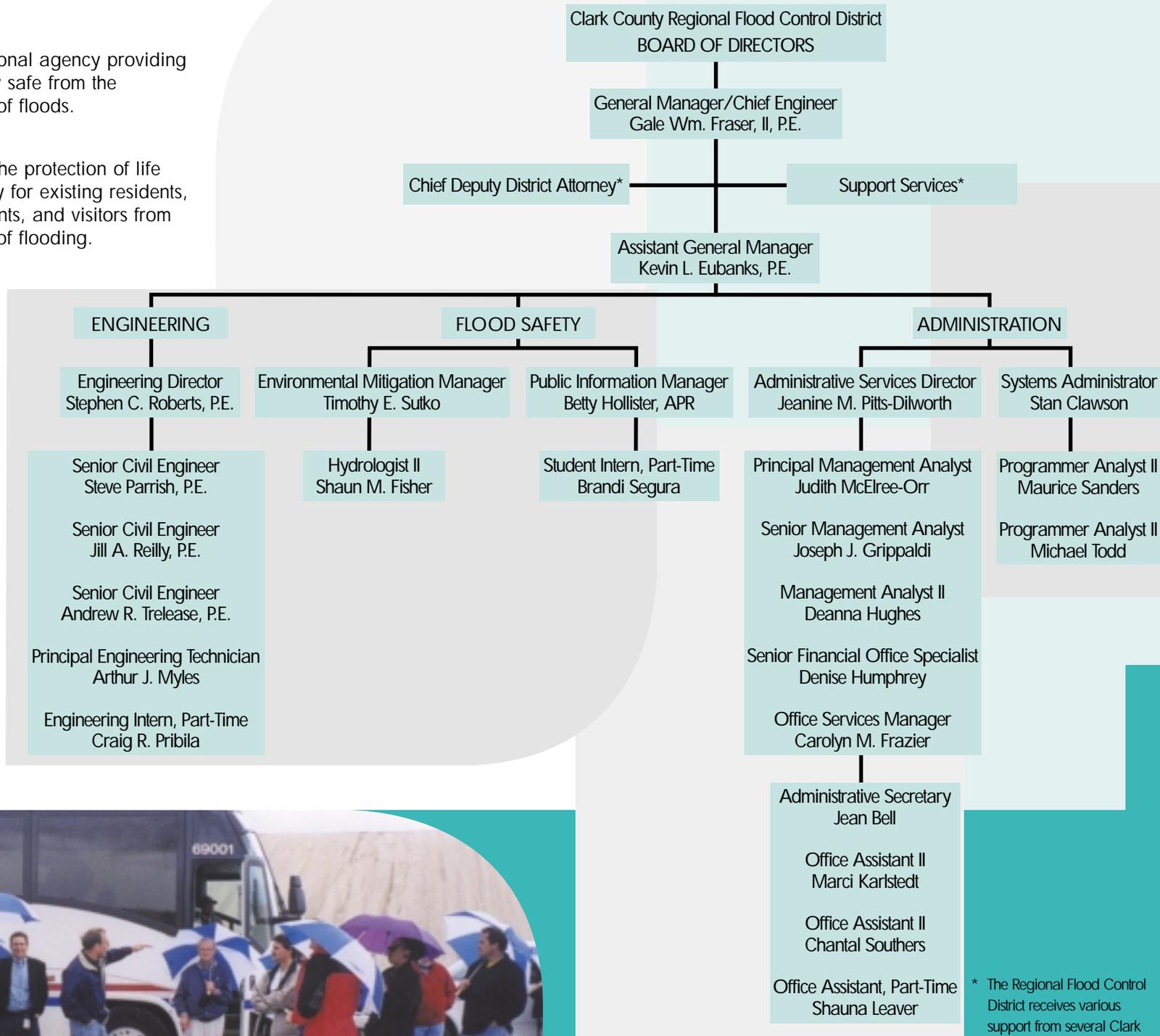
To date, 62 detention basins have been completed and close to 350 miles of channels and underground storm drains constructed. The District has overseen approximately \$820 million for flood control improvements since 1987, but we still have much more work to complete. Our Master Plan includes another 64 detention basins and 475 miles of flood water conveyances that will take another 25-30 years to complete.

While more of the community is safer from floods than ever before, flood insurance is still an option to all residents. Even if you live outside of a FEMA flood zone, flood insurance is available and at a cost far less than homeowners in a flood zone. For more information, call your homeowners insurance agent or you can call the District at 455-3139.

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

VISION Premier regional agency providing a community safe from the devastation of floods.

MISSION To improve the protection of life and property for existing residents, future residents, and visitors from the impacts of flooding.



* The Regional Flood Control District receives various support from several Clark County departments as authorized by state statute.



Citizens Advisory Committee tour of flood control facilities

CITIZENS' ADVISORY COMMITTEE

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

MEMBERSHIP OF THE CAC

(As of July 2003)

Boulder City

Bob Brose • Richard Wyman

Clark County

M.J. Harvey, CAC Chairman
Jack Hurley • Ronald Newell

Henderson

Calvin Black • Larry Nelson

Las Vegas

Abe Mayhan, CAC Vice-Chairman
Laura Bonich • Dr. Linda Young

Mesquite

Natalie Hafen • J. Blake Syndergaard

North Las Vegas

Michael Mamer • Kelly Wittwer

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, or 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 July 2003)

Boulder City

Phillip Henry, Public Works Director

Clark County

Martin Manning, Public Works Director
Alan Pinkerton, Acting Comprehensive
Planning Director

Henderson

Robert Murnane, Public Works Director

Las Vegas

Richard Goecke, Public Works Director
Charles Kajkowski, Chairman
City Engineer/Deputy Director of Public Works

Mesquite

J. Allen Bell, Vice-Chairman, City Engineer

North Las Vegas

James Bell, Public Works Director



CAC Members standing from left:
Kelly Wittwer, Linda Young,
Richard Wyman, Calvin Black,
Seated from left:
Jack Hurley, Michael Mamer, M.J. Harvey,
Ron Newell, Larry Nelson

TAC Members standing from left:
Phillip Henry, Alan Pinkerton,
Robert Murnane, Martin Manning
Seated from left:
Allen Bell, Charles Kajkowski,
Richard Goecke, Thomas Brady (NLV alt.)

ABOUT OUR REGION

With more than 6,000 people moving to Clark County each month, the area continues to be one of the fastest growing in the nation. Population estimates for 2002 show Clark County with approximately 1.6 million residents and an average annual growth rate of 6 percent since 1997. The area is also a prime destination spot for tourists and conventions with almost 36 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, 50 new companies moved to Southern Nevada, contributing approximately \$414 million to the economy and providing jobs for more than 2,500 residents. In addition, approximately 23,000 building permits were issued for single-family and multi-family residences.

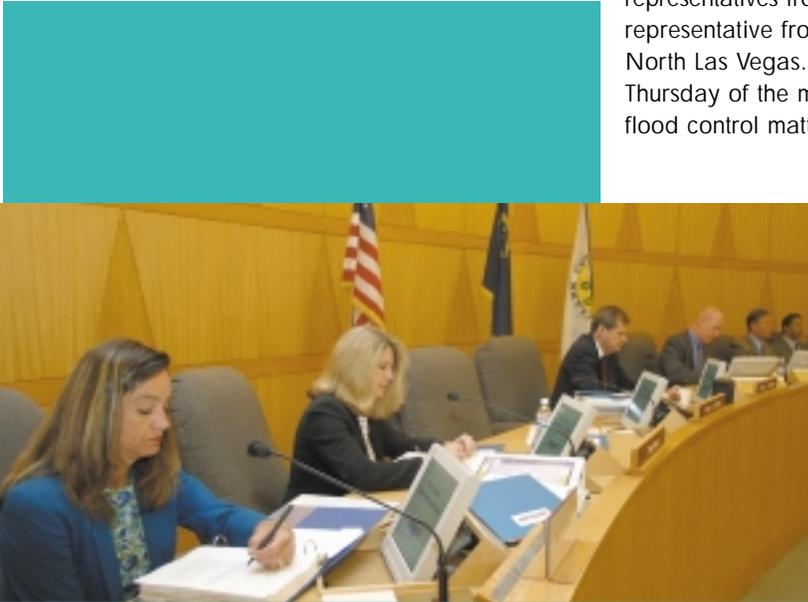
With unprecedented growth and development, the flood control projects and programs required to mitigate floodwaters must be comprehensive and varied. This Annual Report provides background information about the District and summarizes many of the programs in place that support its mission to protect 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 emergency response personnel. 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. 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.

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 government 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.



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. The program also works to educate the community about stormwater quality and how they can help improve the quality of urban runoff that travels into Lake Mead.

Several programs are conducted throughout the year to spread the flash flood safety message to the community. Following is a summary of some of those activities.

The Board of Directors designated July as Flash Flood Awareness Month and held a news 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 event also highlighted progress on several flood control improvements.

Special emphasis is placed on educating children about the dangers of playing in washes and other flood control facilities. This past fiscal year, presentations were made to approximately 5,000 children in 45 area schools. A follow-up survey was sent to teachers to determine the effectiveness of the classroom presentations. Of those who responded, 100 percent said they believed their students were deterred from playing in floodwaters as a result of the flood safety presentation.

School curriculum materials were provided to teachers and students that include a four-page teacher guide, eight-page student activity book, and flood safety video. At teachers' request, curriculum materials were sent to classrooms reaching more than 12,000 elementary-aged students.

The District also conducts a Flood Safety Advertising Campaign that warns motorists about the dangers of flash flooding through advertising on billboards, flood safety messages airing on radio traffic reports, television commercials, and newspaper and magazine advertisements. Public Service Announcements (PSAs), featuring each television station's weather person, were aired to communicate the flood safety message.

District staff participated in six public outreach events. During these events, staff provided members of the community with information about the dangers of flash floods and stormwater quality. The District also produced several public service announcements educating residents about how they can help protect Lake Mead and the environment.

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, cable 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.



ENHANCING INFORMATION SYSTEMS

www.ccrfcd.org

The District's website (www.ccrfcd.org) is designed to provide information to the public about the District, current and historical rainfall data, projects and facilities, flood zones, and flood emergency information.

The District continued to provide leading edge Geographic Information Systems (GIS) technologies to both staff and the public. The District's GIS staff maintained information on 100 year flood zones and facility projects and provided that information to the other entities, agencies, and customers through the county's GIS central data repository. Staff also responded to hundreds of requests for custom maps.

During the past year, the Information Technology (IT) staff completed major steps towards integrating decision support tools and web-based applications into staff work processes. Among the highlights were: 1) the addition of a web-based tool allowing the public a quick and easy method for determining flood zone applicability, 2) continued expansion of the District document management system that gives both District staff and the general public (through the web) access to over 3,500 current and historical documents, 3) major enhancements to the FloodView application increasing its decision support capabilities for staff, 4) completion of a web-based rainfall history application that allows users to view historical rainfall data for one or a group of District rainfall gauges through charts or tabular reports, and 5) initial coding and design of the Ten-Year Construction Program automation project. Future IT projects include mobile database editing and data entry and a flood simulation program to be used by students.

The public is encouraged to visit the website as enhancements are continually being made.



Duck Creek at the Railroad near Warm Springs

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.

The average annual rainfall for the Las Vegas Valley as measured by the National Weather Service (NWS) at McCarran International Airport is 4.49 inches. During the 2002 calendar year, only 1.44 inches of rain was recorded at that site. This is consistent with the rainfall depths measured by most of the District's Flood Threat Recognition System gages throughout the county.

FULFILLING ENVIRONMENTAL REGULATIONS

Throughout its history, the District has nurtured its relationships with the Bureau of Land Management, United States Fish and Wildlife Service, and the U.S. Army Corps of Engineers. The District continues to assist local governments in their efforts to obtain rights-of-way and environmental permits from regulatory agencies.

During this fiscal year, the District began the process of preparing a Supplemental Environmental Impact Statement (EIS) addressing the impacts associated with the construction, operation and maintenance of Master Plan flood control facilities located in the Las Vegas Valley and Boulder City. This analysis and documentation of impacts is necessary in order to secure rights-of-way to public lands as well as many required Federal permits. In close co-ordination with the Bureau of Land Management, a consultant was selected, the Notice of Intent was published in the Federal Register, scoping meetings were conducted to solicit input from the public, and the impact analysis began. It is anticipated that the draft Flood Control Master Plan Supplemental EIS (SEIS) will be released for public review and comment in Fall 2003, and the Final SEIS in Spring 2004.





"A" Channel Flood Control Improvements in North Las Vegas (top and bottom photos)



MASTER PLANNING

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. Master Plan Updates for the Las Vegas Valley and City of Boulder City were adopted this year. A Master Plan Update for the Outlying Areas of Clark County and Laughlin were initiated in Fiscal Year 2003 and is scheduled for adoption in Fiscal Year 2004.

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 Master Plan. No amendments or changes to the Master Plan were processed in Fiscal Year 2003.

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 2003 by the entities and the District.

Regulatory Program

The National Flood Insurance Program (NFIP), administered by the Federal Emergency Management Agency, 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 in accordance with 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:

- 1) Promote comprehensive floodplain management,
- 2) Require safe flood-prone area development,
- 3) Foster sound development policies and construction procedures, and
- 4) Reduce stormwater runoff damage to public and private property.

By meeting and exceeding the NFIP requirements, the regulations 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 NFIP'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.

Nationwide, of the nearly 20,000 communities participating in the NFIP, roughly 960 community flood management programs are 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 5 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.

Land Development Reviews

The District performs land development reviews to ensure compliance with the Uniform Regulations for the Control of



Flamingo Wash at Boulder Highway



Duck Creek Channel

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 subsidized flood insurance whether they live in a flood zone or not. 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 completed flood control facilities, restudy of flood hazard areas are required. Many areas have already been restudied resulting in the removal of approximately 39.4 square miles or 25,190 acres from identified 100-year flood zones. Studies are on-going for Tropicana Wash and Tributaries from the Flamingo Wash to the Southern Beltway; the C-1 Channel System; and a group of remnant flood zones throughout Clark County.

The District will continue to work closely with the entities and FEMA to further the restudy efforts. In fact, Clark County and the entities were issued one of the first state of the art Digital Flood Insurance Rate Maps (DFIRM) in the nation in Fiscal Year 2002-03. FEMA's involvement, from both a financial and a technical review standpoint, is appreciated.

Drainage Standards

The District and the entities have adopted the Hydrologic Criteria and Drainage Design Manual. The Manual 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 monies. The Manual is used by governmental designers and reviewers, and consulting engineers. The Manual was originally adopted in 1990 and updated in 1999 to provide more clarity and address advances in state-of-the-art hydrologic and hydraulic techniques.

The development of the Drainage Design Management System (DDMS) was initiated in Fiscal Year 2000-01 and completed late in Fiscal Year 2001-02. The DDMS is a software package that automates design procedures and manages design data with database technology. The DDMS will streamline design procedures, produce uniform results and add efficiency to review processes. The intent is to reduce design and review time and facilitate Master Plan development and maintenance. The DDMS software was released early in Fiscal Year 2002-03 during several training sessions for engineers and reviewers. Additional development of DDMS capabilities will follow in the years to come.



Upper Flamingo Detention Basin

Drainage and the District's Policies and Procedures Manual, both adopted pursuant to state 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 432 studies and 542 addenda related to the development of private properties deemed to have regional significance. Reviews by the District resulted in the issuance of 407 concurrence letters and 32 related comment letters.

PARTNERING WITH THE FEDERAL GOVERNMENT

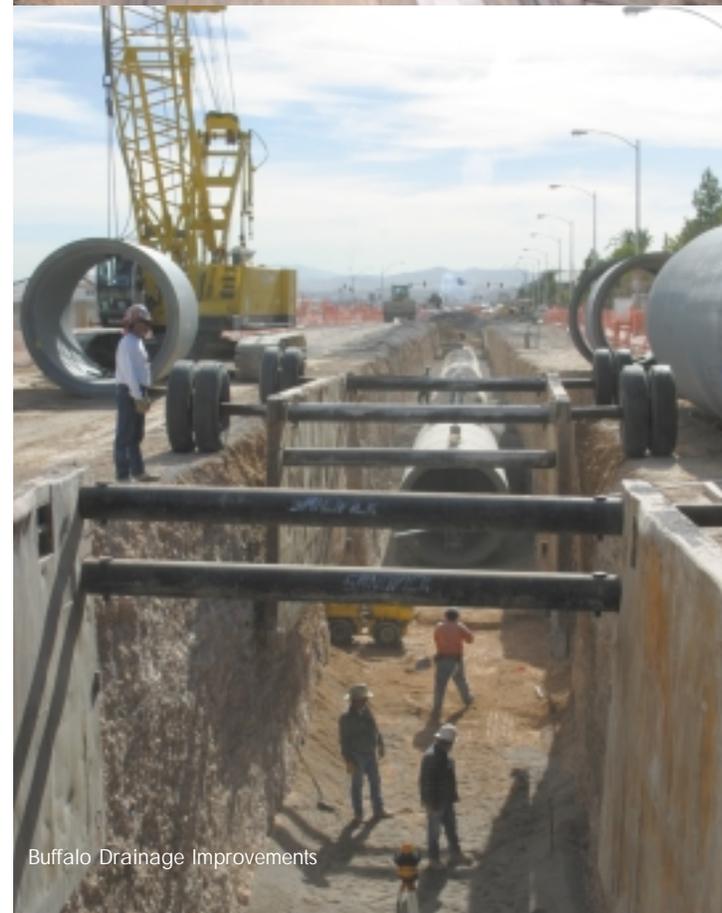
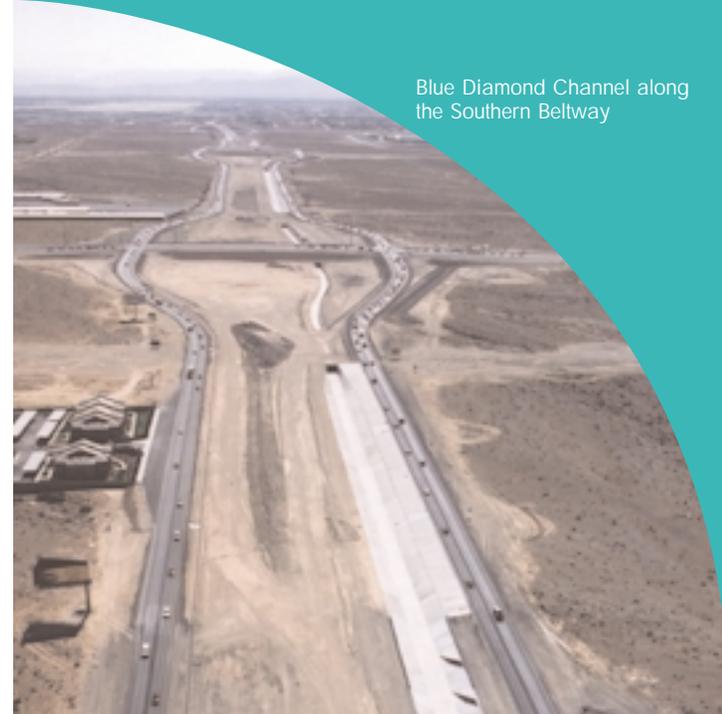
The U.S. Army Corps of Engineers' Tropicana and Flamingo Washes Project, located in the southwestern portion of Las Vegas Valley, includes three detention basins, modifications to two existing detention basins, three debris basins, 27.7 miles of primary channel, a network of lateral collector channels, and desert tortoise mitigation. Federal involvement in providing needed flood control infrastructure for our community was predicated on a financial commitment by the District and support from Nevada's federal delegation.

In February 1995, the District, Clark County, and the U.S. Army Corps of Engineers (Corps) executed a Project Cooperation Agreement that defines responsibilities of each party for implementation, planning, funding, design, construction, operation, and maintenance of a \$276.6 million network of flood control facilities. The District hopes to secure \$208.1 million in federal funding through this agreement and is responsible for the local sponsors' financial obligation of \$68.5 million. The District is responsible for 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 the project. The Corps will provide project management, design, construction management, and funding for approximately 75 percent of total project costs.

The District, Clark County, and the Corps made significant progress on the Tropicana and Flamingo Washes Project during Fiscal Year 2002-03. The project currently is about 80 percent complete and is scheduled for completion in 2005. The three partners have accomplished considerable work consisting of pre-design, design, rights-of-way acquisition, and utility relocations on many features of the project. The Corps completed construction of three projects: a 660 ft. extension to Lower Flamingo Diversion Channel, R-4 Detention Basin and Outfall Channel, and F-1 Channel-Beltway to Hualapai Way. The Corps started construction of two additional projects: F-1 and F-2 Debris Basins and Outfall Channels and Upper Flamingo Diversion Channel. In addition, the Corps nearly completed design of Blue Diamond Channel-Durango Reach, which will be funded early next year, and started design of F-4 Debris Basin and Outfall Channel.

In February 2003, Congress appropriated \$45 million for federal Fiscal Year 2003 for the Tropicana and Flamingo Washes Project. This was the largest single appropriation to date from the federal government for this project. Total federal funding has increased to approximately \$176 million for these important flood control

Blue Diamond Channel along
the Southern Beltway



Buffalo Drainage Improvements



improvements. Included in total federal appropriations are \$14.6 million for reimbursement to local sponsors for work completed under Section 211 of Water Resources Development Act of 1996.

The Corps continued its review of documentation submitted by local sponsors for design and construction costs of flood control facilities completed by the local sponsors in advance of the Corps. For the past seven years, the District, Clark County, and the Corps have closely coordinated design and construction of the Las Vegas Beltway and portions of the Blue Diamond and Red Rock Channels. To date, local sponsors have funded and completed approximately \$24.7 million in work, of which \$18.5 million is estimated to be the federal proportionate share. This year the Corps reimbursed local sponsors \$1 million for work completed under provisions of Section 211, bringing the total reimbursement to date to \$10.6 million. The Corps and local sponsors are currently reviewing the eligibility of approximately \$5 million in work. The District is proud of being one of the first in the nation to achieve this accomplishment.

This year the District, Clark County, and the Corps resolved a long-standing issue of inclusion of the costs of road crossings into the project. Last year local sponsors completed research and presented their position to Corps policy experts from Washington, D.C. for their determination of eligibility of bridge costs associated with the project. Public Law 108-7, signed in February 2003 by President Bush, modified the scope of Tropicana and Flamingo Washes Project to include channel crossings that are necessary for existing and proposed highways and roads identified on a 1996 Clark County Comprehensive Plan-Transportation Element. Costs of crossings, which may not exceed \$16 million, are now creditable towards the District's share of project costs.

By securing federal appropriations, the District leverages revenue from local sales tax and is able to accelerate completion of needed flood control improvements. In March 2003, the District prepared testimony seeking continued federal appropriations for federal Fiscal Year 2004 of \$26.3 million for construction and for reimbursement under Section 211.



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 six co-permittees representing the various city, county, and state agencies owning and operating municipal separate storm sewer systems in the Las Vegas Valley. The NPDES permit authorizes discharge from stormwater outfalls to the Las Vegas Wash. In return, the permit outlines a schedule of monitoring requirements, best management practices, and conditions designed to promote the reduction of pollutants in stormwater discharges. The permit was re-issued on June 16, 1997 and again most recently on June 19, 2003.

The District contracted with a professional engineering firm to assist in the monitoring, laboratory analysis, reporting, and program development efforts required by the permit. The coming year will include the development of a Storm Water Management Plan (SWaMP) identifying specific program areas which 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. Dry weather sampling is performed in cooperation with the Southern Nevada Water Authority, and the water quality database is expanding as new data is obtained.

An informational brochure was developed through the various committees 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.

The stormwater website (www.lvstormwater.com) was enhanced to include video of various public service announcements. The site provides information about stormwater quality, describes proper use and disposal of chemicals and fertilizers, and educates the community about how to improve the quality of urban runoff that travels untreated to Lake Mead. Several community and environmental events were attended to help educate the public about stormwater quality. Brochures, pet waste bags, pet food lids, note pads, and stickers were distributed at these community events, and each giveaway included a consistent message about protecting the environment and Lake Mead. An enviroscape model continued to be used to demonstrate for children and adults how stormwater travels through a network of storm drains and channels to reach Lake Mead. One new television public service announcement (PSA) was developed and distributed to all local media and local government access stations. This PSA, along with three others, were used to educate the community how various pollutants are transported through the drainage network to Lake Mead. The 30-second spots focused on proper fertilizing of lawns, proper disposal of pet waste, and the benefits to the environment of using commercial car washes.

The District is an active member of the Lake Mead Water Quality Forum and the Las Vegas Wash Coordination Committee. The District also participates on the Management Advisory Committee for the Las Vegas Wash.



MONITORING THE WEATHER

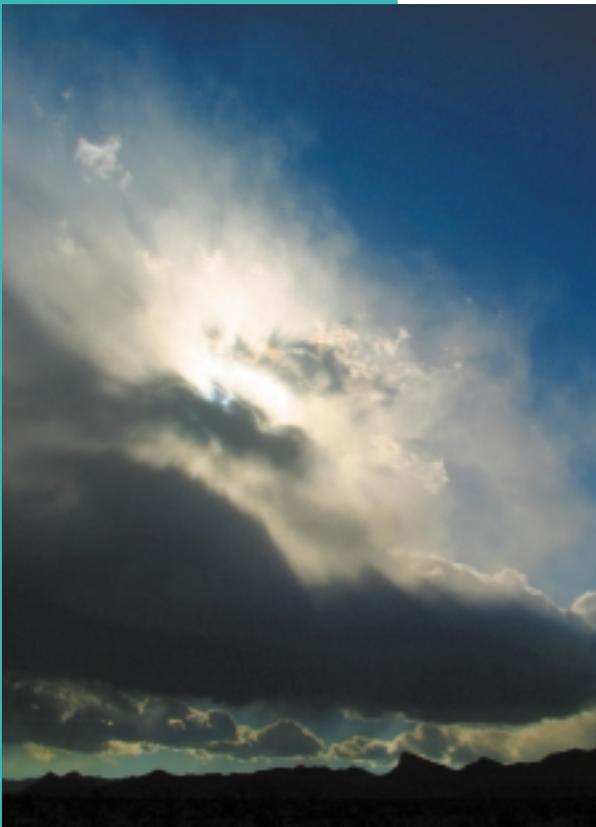
The District, in cooperation with the U.S. Geological Survey (USGS) and the National Weather Service (NWS), began implementing a Flood Threat Recognition System (FTRS) throughout the Clark County area in 1987. The system includes a network of strategically located field stations which automatically report data from more than 300 meteorologic sensors in real-time to computerized base stations operated by each of the cooperating agencies.

During the fiscal year, ten new stations were installed, bringing the total number of field stations in operation to 134. Of this total, twenty-five stations collect temperature, humidity and wind data in addition to rainfall data. Sixty-nine stations collect rainfall and water level information. The remaining 40 stations report only rainfall data. Ten of the field stations are maintained by the USGS under the terms of a joint funding agreement with the District. District staff maintains the remaining 124 stations.

The FTRS provides valuable information on water levels, rainfall, and other meteorologic parameters. Information on wind speed and direction 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's fully-automated base station notifies staff, both in and out of the

District's offices, of potentially dangerous situations. Using computer 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 agencies to more effectively direct their limited resources. The District maintains 11 modems and an FTP site to provide local governments, the news media, and staff access to the FTRS. The District also provides access to the Flood Threat Recognition System data to the world via the world wide web (www.ccrfcd.org). Both historic and current rain and weather data collected from any of the District's field stations can be accessed.



DEMONSTRATING FISCAL INTEGRITY

In the primary election of 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 Fiscal Year 2002-03 totaled \$60,669,372, bringing total revenues derived from sales tax since 1987 to \$581,637,463. Sales tax revenues for Fiscal Year 2003-04 are projected to be approximately \$61.6 million, of which more than 90 percent will be used to fund the Capital Improvement Program (CIP) and associated debt service.

Interest earnings, which represent approximately 7 percent of resources, are also used to fund CIP projects. Interest earnings in Operating Fund 286 amounted to \$442,818 this past year, while Capital Improvement Fund 443 and Construction Bond Fund 444 earned \$4,248,064 in interest. The total amount of interest available to fund CIP projects in Fiscal Year 2002-03 was \$4,690,882.

The District was able to fund approximately \$60.4 million in CIP projects this past fiscal year as a result of using pay-as-you-go resources and augmenting the budget of Bond Fund 444 by \$25 million. The budget increase was a result of the Board authorizing the sale and issuance of \$25 million in medium-term bonds. However, the District decided not to issue the medium-term bonds because management determined that additional debt authority would be needed to meet funding requests and provide the community with needed flood protection.

In order to address the funding shortfall and meet funding requests, the District formally requested the Board of County Commissioners to issue general obligations on behalf of the District in an aggregate principal amount of \$200 million for the purpose of accelerating the design and construction of flood control infrastructure. On August 14, 2003, the Regional Flood Control District Board took final action to approve the general obligations, and it is expected that the debt will be issued and proceeds received in early September 2003.



F-1 Channel

The additional injection of resources will allow approximately \$160 million in CIP projects to be funded in upcoming Fiscal Year 2003-04.

Another measure taken by the District to build critically needed flood control facilities in Southern Nevada is the very successful Entity Advance Funding (EAF) process. The EAF process was initiated in Fiscal Year 2000-01 to address funding limitations for project construction. This process allows an entity to fund projects ahead of the District's funding schedule and be reimbursed by the District when funds become available. Approximately \$75 million in construction projects have been accelerated since the inception of the EAF process. The District initiated approximately \$10.7 million in EAF projects this past year, while \$26.3 million in EAF projects were completed during the year.

During the 2001 Nevada Legislative Session, the District proposed several changes to NRS 543 – Control

of Floods. Senate Bill 267 passed during the session and amends NRS 543 to allow the District to implement a Local Drainage Program. This program, spearheaded by the Citizen's Advisory Committee, allows the District to cost share up to 50 percent of a local drainage project when certain prerequisites are met. In Fiscal Year 2002-03, the District funded two Local Drainage projects in the City of Las Vegas totaling \$1.7 million with the District's participation being \$826,000. In upcoming Fiscal Year 2003-04, the District has budgeted approximately \$1 million for Local Drainage projects.

The Government Finance Officers Association of the United States and Canada (GFOA) recognized the District for its Fiscal Year 2002-03 Budget and Financial Plan. The District received the Distinguished Budget Presentation Award, the highest form of recognition in governmental budgeting awarded for the ninth 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. 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 Facilities Maintenance Fund, which provides resources for the Maintenance Work Program.



ENTITY ADVANCE FUNDING PROCESS

The Entity Advance Funding (EAF) process has accelerated approximately \$75 million in construction projects of which \$20 million remain on a priority list for funding as of June 30, 2003. During Fiscal Year 2002-03, the District was able to initiate four EAF projects totaling approximately \$10.7 million and complete six EAF projects totaling \$26.3 million. The Entity Advance Funding process has provided the community with additional flood control protection in advance of the District's funding schedule, and has created a win-win relationship for the District, the entities, and the citizens of Clark County.

Entity Advance Funding Outstanding on June 30, 2003

BOULDER CITY

West Airport Facilities ————— \$ 571,092

CLARK COUNTY

Red Rock Channel,
 Naples Branch - Flamingo Connector ————— \$ 1,030,000
 Lakes Detention Basin,
 Collection System and Outfall ————— \$ 700,000
 Duck Creek,
 Broadbent Boulevard Bridge and Channel ————— \$ 3,000,000

LAS VEGAS

Ann Road, Allen Lane to Rancho Drive ————— \$ 7,873,000
 Gowan North System,
 Phase III (Alexander Road to Lone Mountain Road) — \$ 5,812,000

NORTH LAS VEGAS

Las Vegas Wash - Losee Road ————— \$ 1,195,000

OUTSTANDING COMMITMENTS \$ 20,181,092

OPERATING FUND

Table I - Fund 286
Schedule of Resources and Expenditures
Fiscal Year Ending June 30, 2003

	FY 2002-03 Unaudited	FY 2001-02 Prior Year ¹
RESOURCES		
Sales and Use Tax	\$ 60,669,372	\$ 56,553,927
Interest	442,818	709,358
Transfers in (From Fund 443)	6,253,002	5,138,064
Other ²	565,853	5,767,406
TOTAL RESOURCES	\$ 67,931,045	\$ 68,168,755
EXPENDITURES		
Salaries & Wages	\$ 1,637,910	\$ 1,494,467
Employee Benefits	501,834	445,056
Services and Supplies	3,025,585	2,718,312
Capital Outlay	150,820	108,741
Capital Improvement Fund (Transfers to Fund 443)	34,993,817	39,751,962
Facilities Maintenance Fund (Transfers to Fund 287)	5,566,913	3,878,237
Bond Debt Service Fund ³ (Transfers to Fund 330)	20,145,583	20,039,840
TOTAL EXPENDITURES	\$ 66,022,462	\$ 68,436,615
FUND BALANCE		
Beginning of Year	\$ 9,878,613	\$ 10,146,473
END OF YEAR	\$ 11,787,196	\$ 9,878,613
Reserved Fund Balance ⁴	\$ 1,556,934	\$ 1,712,182
Designated Fund Balance ⁵	\$ 10,230,262	\$ 8,166,431
Undesignated Fund Balance	\$ 0	\$ 0

- ¹ Audited financial statements are available upon request.
- ² Fiscal Year 2002-03 major items include: 1) Section 211 reimbursement of \$250,000, 2) NDOT's NPDES contribution of \$33,954, and 3) Reimbursement of \$252,250 from the City of North Las Vegas for a power line easement; Fiscal Year 2001-02 major items include: 1) Section 211 reimbursement of \$2,400,000, and 2) Flamingo/McLeod land sale of \$3,365,000.
- ³ Bond Debt Service includes 1991 (\$80 million) and 1998 (\$150 million) General Obligation Flood Control Bonds that were issued to expedite construction of flood control improvements.
- ⁴ Reserved Fund Balance is the portion that the District has contractually obligated either through Interlocal Contracts or Purchase Orders.
- ⁵ Designated Fund Balance is the portion that the District has earmarked for projects that are part of the Ten-Year Construction Program.

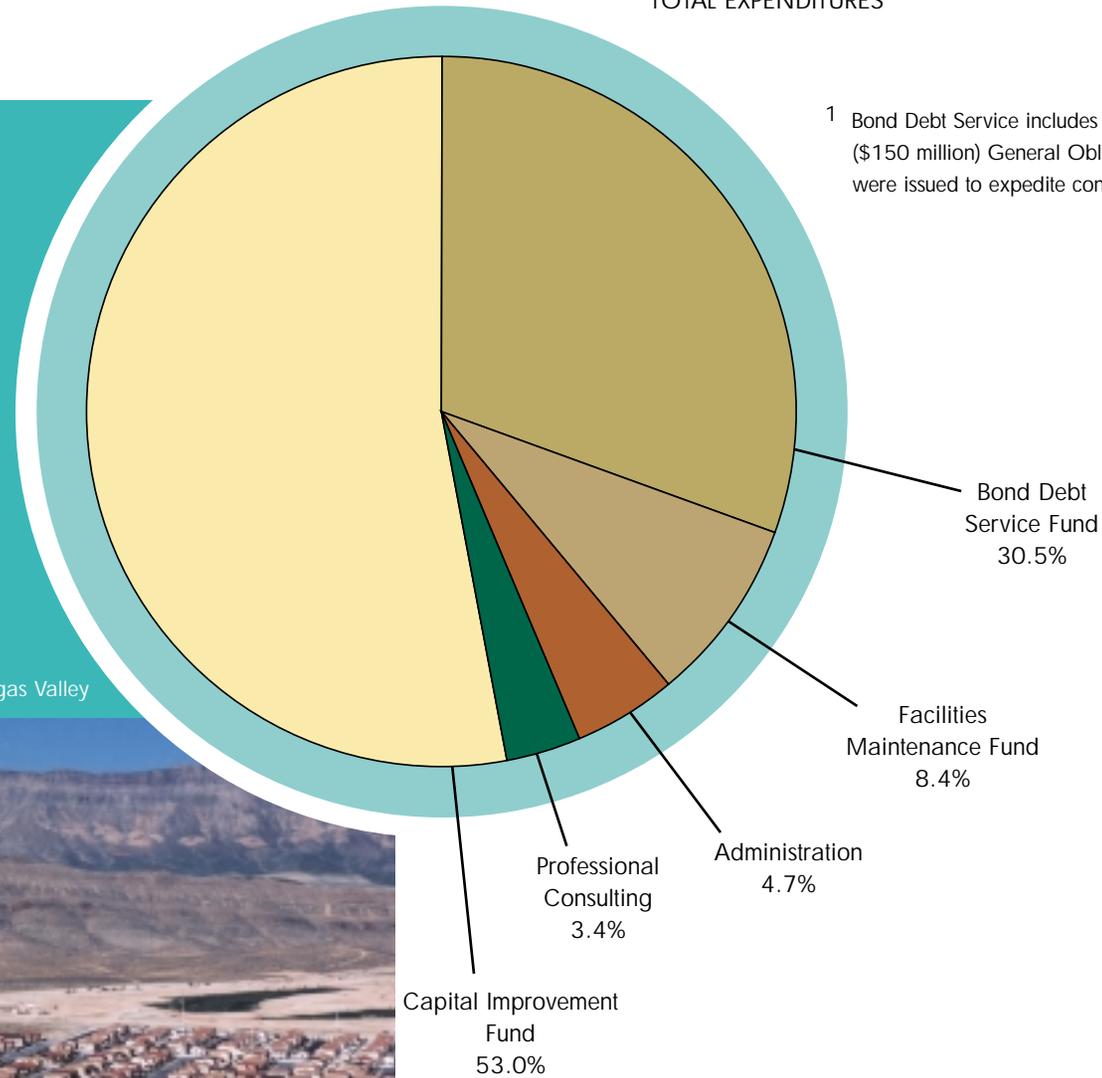


"A" Channel Improvements

FY 2002-03 DISTRIBUTION OF OPERATING FUND EXPENDITURES

Table II

Capital Improvement Fund	\$ 34,993,817	53.0%
Bond Debt Service Fund ¹	\$ 20,145,583	30.5%
Facilities Maintenance Fund	\$ 5,566,913	8.4%
Operations		
District Administration	\$ 3,081,040	4.7%
Professional Consulting Services	\$ 2,235,109	3.4%
TOTAL EXPENDITURES	\$ 66,022,462	100.0%



¹ Bond Debt Service includes 1991 (\$80 million) and 1998 (\$150 million) General Obligation Flood Control Bonds that were issued to expedite construction of flood control improvements.

Las Vegas Valley

CAPITAL IMPROVEMENT FUND

Table III - Fund 443
Schedule of Resources and Expenditures
Fiscal Year Ending June 30, 2003

	FY 2002-03 Unaudited	FY 2001-02 Prior Year ¹
RESOURCES		
Transfers In (From Fund 286)	\$ 34,993,817	\$ 39,751,962
Interest	3,341,434	5,153,861
Other	277,757	107,087
TOTAL RESOURCES	\$ 38,613,008	\$ 45,012,910
EXPENDITURES		
Capital Improvement Program	\$ 36,873,716	\$ 49,833,129
Transfers Out (To Fund 286)	6,253,002	5,138,064
Services and Supplies	0	68,830
TOTAL EXPENDITURES	\$ 43,126,718	\$ 55,040,023
FUND BALANCE		
Beginning of Year	\$ 60,980,648	\$ 71,007,761
END OF YEAR	\$ 56,466,938	\$ 60,980,648
Reserved Fund Balance ²	\$ 56,116,938	\$ 59,625,388
Designated Fund Balance ³	\$ 350,000	\$ 1,355,260
Undesignated Fund Balance	\$ 0	\$ 0



Upper Flamingo Diversion Channel Phase II

- ¹ Audited financial statements are available upon request.
- ² Reserved Fund Balance is the portion that the District has contractually obligated either through Interlocal Contracts or Purchase Orders.
- ³ Designated Fund Balance is the portion that the District has earmarked for projects that are part of the Ten-Year Construction Program.

CONSTRUCTION BOND FUND

Table IV - Fund 444
Schedule of Resources and Expenditures
Fiscal Year Ending June 30, 2003

	FY 2002-03 Unaudited	FY 2001-02 Prior Year ¹
RESOURCES		
Transfers In ²	\$ 0	\$ 51,841
Interest	906,630	1,378,054
Other	0	15,050
TOTAL RESOURCES	\$ 906,630	\$ 1,444,945
EXPENDITURES		
Project Expenditures	\$ 1,157,316	\$ 16,674,013
Services and Supplies	0	30,743
TOTAL EXPENDITURES	\$ 1,157,316	\$ 16,704,756
FUND BALANCE		
Beginning of Year	\$ 13,734,494	\$ 28,994,305
END OF YEAR	\$ 13,483,808	\$ 13,734,494
Reserved Fund Balance ³	\$ 6,367,543	\$ 8,918,905
Designated Fund Balance ⁴	\$ 7,116,265	\$ 4,815,589
Undesignated Fund Balance	\$ 0	\$ 0



- 1 Audited financial statements are available upon request.
- 2 In Fiscal Year 2001-02, \$51,841 was transferred in from Fund 448 for interest earned in Special Improvement District 71A for the Unnamed Wash project.
- 3 Reserved Fund Balance is the portion that the District has contractually obligated either through Interlocal Contracts or Purchase Orders.
- 4 Designated Fund Balance is the portion that the District has earmarked for projects that are part of the Ten-Year Construction Program.

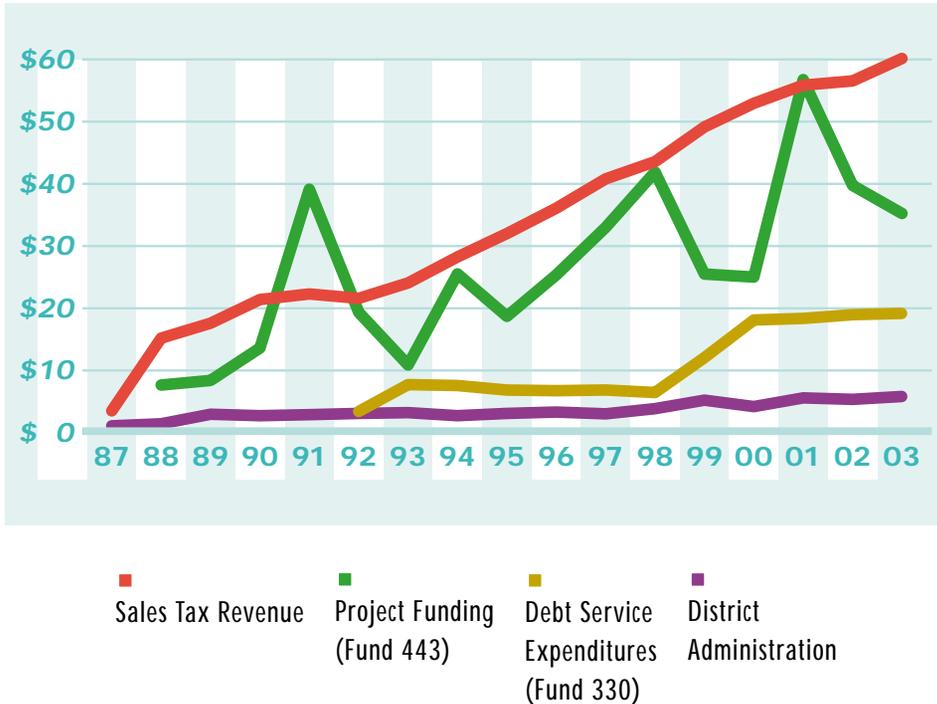
BOND DEBT SERVICE FUND

Table V - Fund 330
Schedule of Resources and Expenditures
Fiscal Year Ending June 30, 2003

	FY 2002-03 Unaudited	FY 2001-02 Prior Year ¹
RESOURCES		
Interest	751,093	837,979
Transfers In (From Fund 286)	20,145,583	20,039,840
TOTAL RESOURCES	\$ 20,896,676	\$ 20,877,819
EXPENDITURES		
Bond Principal & Interest Payments ²	\$ 19,827,188	\$ 19,612,445
Services and Supplies	1,075	13,526
TOTAL EXPENDITURES	\$ 19,828,263	\$ 19,625,971
FUND BALANCE		
Beginning of Year	\$ 10,931,423	\$ 9,679,575
END OF YEAR	\$ 11,999,836	\$ 10,931,423

- ¹ Audited financial statements are available upon request.
- ² Bond Debt Service includes 1991 (\$80 million) and 1998 (\$150 million) General Obligation Flood Control Bonds that were issued to expedite construction of flood control improvements.

**Sales Tax Revenue Compared to: Project Funding (Fund 443)
Debt Service Expenditures (Fund 330)
District Administration**



FACILITIES MAINTENANCE FUND

Table VI - Fund 287
Schedule of Resources and Expenditures
Fiscal Year Ending June 30, 2003

	FY 2002-03 Unaudited	FY 2001-02 Prior Year ¹
RESOURCES		
Transfers In (From Fund 286)	5,566,913	3,878,237
Interest	163,640	241,631
TOTAL RESOURCES	\$ 5,730,553	\$ 4,119,868
EXPENDITURES		
Maintenance Work Program	\$ 4,867,743	\$ 4,643,109
Services and Supplies	0	3,369
TOTAL EXPENDITURES	\$ 4,867,743	\$ 4,646,478
FUND BALANCE		
Beginning of Year	\$ 844,195	\$ 1,370,805
END OF YEAR	\$ 1,707,005	\$ 844,195
Reserved Fund Balance ²	\$ 716,142	\$ 510,486
Designated Fund Balance ³	\$ 990,863	\$ 333,709
Undesignated Fund Balance	\$ 0	\$ 0

¹ Audited financial statements are available upon request.

² Reserved Fund Balance is the portion that the District has contractually obligated either through Interlocal Contracts or Purchase Orders.

³ Designated Fund Balance is the portion that the District has earmarked for Maintenance Work Program projects.

MAINTENANCE 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 2002-03 Maintenance Work Plans and Budgets, which were approved by the Board on June 13, 2002, in the amount of \$5,784,763. The Board approved a supplemental budget request of \$390,000 on September 12, 2002, bringing the total approved budget to \$6,174,763.

Flood control facility maintenance was performed using a combination of private contractors and entity maintenance staff. During this year, approximately 343 miles of channels and underground storm drains were inspected and/or maintained throughout the service area of the District, along with 62 detention basins.

Maintenance Work Program Expenditures

Entity	FY 2002-03 Unaudited
BOULDER CITY	\$ 548,537
CLARK COUNTY	\$ 1,898,670
HENDERSON	\$ 410,926
LAS VEGAS	\$ 1,325,000
MESQUITE	\$ 117,504
NORTH LAS VEGAS	\$ 567,106
TOTAL	\$ 4,867,743



Buffalo Storm Drain

CONSTRUCTION PROGRESS

The following tables represent the progress towards construction of needed flood control improvements to protect lives, homes and businesses from floods.

The progress is represented by:

- Funding approved during Fiscal Year 2002-03
- Projects completed two years ago in Fiscal Year 2001-02
- Projects completed this last Fiscal Year 2002-03
- Projects under construction as of June 30, 2003
- Projects scheduled for work next Fiscal Year 2003-04

1 Indicates a reduction in the funding allocation or a project closeout

2 Indicates initial Entity Advance Funding

**FUNDING APPROVED
DURING FISCAL
YEAR 2002-03**

BOULDER CITY

Ville Drive Flood Control Facilities ^{1/2}	(112,632.33)
West Airport Channel Facility ¹	(28,419.25)

CLARK COUNTY

Duck Creek at Robindale Road ^{1/2}	(63,025.98)
Duck Creek, Hollywood Boulevard to Stephanie Street	400,000.00
Duck Creek, Lower Detention Basin to I-15	400,000.00
Duck Creek, Phase II and Lower Pittman	16,184,537.00
Duck Creek, Sunset Road to Eastern Avenue	161,000.00
Duck Creek, Tomiyasu Lane to Topaz Street ²	135,000.00
Durango Collector, Hacienda Avenue to Twain Avenue ¹	(21,746.82)

Flamingo Wash at Boulder Highway ¹	(301,396.19)
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Flamingo Wash, Boulder Highway to Mojave Road ^{1/2}	(500,000.00)
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Flamingo Wash, I-515 to McLeod Drive	125,000.00
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Flamingo Wash, McLeod Drive to Maryland Parkway	230,000.00
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Orchard Detention Basin	545,400.00
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Tropicana and Flamingo Washes	8,024,680.00
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Upper Duck, Central Duck, Lower Blue Diamond, and Bird Springs Detention Basins	377,300.00
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Van Buskirk System, Spencer Street to Rochelle Avenue ¹	(41,036.03)
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Washington Collection System ¹	(279,035.38)
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CLARK COUNTY OUTLYING

Goodsprings Flood Control Improvements ¹	(0.10)
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Indian Springs Flood Control Improvements	79,000.00
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HENDERSON

Boulder Highway Channel	160,095.00
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C-1 Channel, Middle and Upper Reaches, Phase I ¹	(435,212.90)
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C-1 Channel, Upper and Middle Reaches, Vermillion Drive to Boulder Highway	4,180,000.00
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Equestrian Detention Basin Outfall	559,000.00
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Gibson Channel Culvert at Sunset Road	21,000.00
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Gibson Conveyance System	500,000.00
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Mission Hills System ¹	(131,730.63)
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Pioneer Detention Basin ^{1/2}	(561,433.43)
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Pittman Eastern Detention Basin	189,000.00
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Pittman Wash Lower Reach	105,000.00
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Railroad East Detention Basin ¹	(111,738.67)
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South Pittman Detention Basin ¹	(22,898.28)
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Southwest Pittman Detention Basin and Outfall	1,500,000.00
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Upper and Middle Reaches of the C-1 Channel	35,000.00
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LAS VEGAS

Angel Park Detention Basin Expansion ¹	(166,465.60)
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Crystal Water Way, Lake South Drive to Desert Inn Road, Local Drainage	378,000.00
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Freeway Channel, Alta Drive to Sahara Avenue and Bypass Facility from Wall Street to Sahara Avenue	500,000.00
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Freeway Channel, Alta Drive to Sahara Avenue ¹	(500,000.00)
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Freeway Channel System, Alta Drive to UPRR ¹	(46,197.05)
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Gowan North, Buffalo Branch ¹	(23,796.19)
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Gowan North, Buffalo Branch, Gowan Road and Buckskin Avenue ¹	(98,593.61)
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Gowan North Channel, Alexander Drive to Lone Mountain Road and Lone Mountain Outfall	41,000.00
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Gowan North Channel, Phase II, Durango Drive ¹	(236,625.97)
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Gowan Outfall, Lone Mountain Branch, Allen Lane to Ferrell Street ¹	(149,216.46)
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Gowan Outfall, Lone Mountain Branch, Ferrell Street to Kenny Way ¹	(38,672.13)
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Gowan/Lone Mountain System, Gilmore Channel ¹	(42,562.81)
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Las Vegas Wash, Rancho Drive System, Carey/Lake Mead Detention Basin to Peak Drive ²	507,000.00
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Owens Avenue System, Rancho Drive to I-15 ²	3,964,000.00
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Peak Drive, Rainbow Boulevard to Torrey Pines Drive, Local Drainage	448,000.00
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Rancho Road System, Durango Drive to US-95 Interchange	111,468.00
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MESQUITE

Abbott Wash Channel, I-15 to Virgin River	226,481.00
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Town Wash Conveyance, I-15 to Virgin River	258,100.00
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NORTH LAS VEGAS

Centennial Parkway Channel East	185,000.00
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Cheyenne Peaking Basin, Collection, and Outfall, Alexander Road to Cheyenne Avenue	17,660,000.00
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Gowan Outfall, Craig Road to Channel	158,000.00
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Las Vegas Wash Main Branch, Cheyenne Avenue to Lake Mead Boulevard	531,000.00
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Range Wash, Lamb Boulevard Storm Drain	350,000.00
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Tributary to the Western Tributary at Craig Road	1,103,100.00
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Tributary to the Western Tributary at Craig Road ¹	(265,580.08)
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Upper Las Vegas Wash	77,000.00
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Funding Commitments	\$60,409,161.00
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Funding Reductions	\$(4,178,015.89)
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TOTAL FUNDING APPROVED, Fiscal Year 2002-03	\$56,231,145.11
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**PROJECTS
COMPLETED
DURING THE
PREVIOUS FISCAL
YEAR 2001-02**

BOULDER CITY Construction Completed
Ville Drive Flood Control Facilities September 2001

CLARK COUNTY
Duck Creek, Emerald Avenue to Stephanie Street, Phase I
October 2001

Duck Creek, Tomiyasu Lane to the Railroad near Warm Springs
December 2001

Lakes Detention Basin & Outfall, Phase IIIB (Durango Collector - Sahara Avenue to Desert Inn Road) November 2001

Red Rock Channel, Naples Branch - Flamingo Connector
April 2002

Washington Collection System (Montridge Storm Drain)
September 2001

US Army Corps of Engineers Project
Lower Flamingo Diversion Channel, Phase I (Tropicana Detention Basin to Jones Boulevard) February 2002

Red Rock Detention Basin Erosion Control and Red Rock Outfall Channel
October 2001

HENDERSON
C-1 Channel/Middle and Upper Reaches, Phase I (Burkholder Boulevard to Boulder Highway) June 2002
Pioneer Detention Basin April 2002

LAS VEGAS
Angel Park Detention Basin Expansion, Phase III January 2002
Gowan / Lone Mountain System - Gilmore Channel February 2002
Las Vegas Wash - Smoke Ranch System (Peak Drive: Torrey Pines Drive - Jones Boulevard) April 2002
Rancho Road System, Durango Drive to US-95 Interchange May 2002
Washington Avenue & Freeway Channel North (Washington Avenue/I-15 to Martin Luther King Boulevard) May 2002



**PROJECTS COMPLETED
DURING THE FISCAL
YEAR 2002-03**



Dedication of the R-4 Detention Basin

<u>BOULDER CITY</u>	<u>Construction Completed</u>
West Airport Facilities	July 2002
<u>CLARK COUNTY</u>	
Duck Creek, Railroad near Warm Springs to Topaz Street (Phase IIB)	December 2002
Flamingo Diversion - Jones Branch	December 2002
Flamingo Wash, Boulder Highway to Mojave Road (Miracle Mile)	July 2002
Flamingo Wash, Spencer Street Bridge and Approach Channel	October 2002
<i>US Army Corps of Engineers Project</i>	
F-1 Channel, Beltway to Hualapai Way	June 2003
R-4 Detention Basin and Channel	February 2003
<u>HENDERSON</u>	
Gibson Channel Culvert at Sunset Road	April 2003
Pittman Eastern Detention Basin	November 2002
South Pittman Detention Basin (McCullough Hills Detention Basin)	July 2002
<u>LAS VEGAS</u>	
Ann Road, Allen Lane to Rancho Drive	June 2003
Freeway Channel, Alta Drive to Sahara Avenue and Bypass	
Facility from Wall Street to Sahara Avenue	August 2002
Las Vegas Wash, Rancho Drive System (Carey/Lake Mead Detention Basin to Peak Drive)	February 2003
Meadows Detention Basin Expansion	October 2002
<u>NORTH LAS VEGAS</u>	
Gowan Outfall, Craig Road to Channel	July 2002

PROJECTS UNDER CONSTRUCTION

AS OF JUNE 30, 2003

CLARK COUNTY Scheduled for Completion

Duck Creek, Phase II and Lower Pittman June 2004

Lakes Detention Basin, Collection System, and Outfall, Phase IV
(Buffalo Drive Storm Drain - Desert Inn Road to Laredo Street)

September 2003

US Army Corps of Engineers Project

Blue Diamond Channel - Durango Reach (Warm Springs
Intersection)* December 2003

F-1 and F-2 Debris Basins and Channels, Phase II (F-1 and F-2
Debris Basins) January 2004

Upper Flamingo Diversion Channel, Phase II (Jones Boulevard
to Flamingo Detention Basin) April 2004

LAS VEGAS

Las Vegas Creek Channel, Parallel System at Decatur
Boulevard December 2003

Owens Avenue System (Rancho Drive to I-15) March 2004

Peak Drive, Rainbow Boulevard to Torrey Pines Drive,
Local Drainage February 2004

NORTH LAS VEGAS

Tributary to the Western Tributary at Craig Road
("A" Channel Craig Confluence) August 2003

* 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.



R-4 Detention Basin

**PROJECTS SCHEDULED
FOR WORK IN
FISCAL YEAR 2003-04**



Ann Road Storm Drain

BOULDER CITY Estimated completion date

Adams Boulevard Facilities - Valley View Estates, Design	April 2004
DD Facilities, Design	April 2004
Industrial Road Facilities, Construction	December 2004
North Railroad Watershed (Industrial Road Facility), Design	June 2004
Red Mountain Drive Facilities, Design	April 2004

CLARK COUNTY

Bunkerville Flood Control Improvements, Windmill Wash Detention Basin Outfall Facilities, Design	July 2004
Duck Creek, Broadbent Boulevard Bridge and Channel, Construction	March 2004
Duck Creek, Broadbent Boulevard to Boulder Highway (Phase IIIB), Construction	October 2004
Duck Creek, Hollywood Boulevard to Stephanie Street, Design	August 2003



F-2 Debris Basin

Duck Creek, Lower Detention Basin to I-15, Design	September 2003
Duck Creek, Lower Detention Basin to Silverado Ranch Boulevard, Construction	October 2004
Duck Creek, Topaz Street to Eastern Avenue, Construction	September 2004
Duck Creek, US-95 Branch, Construction	August 2004
Duck Creek Channel, Eldorado Lane to Spencer Street, Design	April 2004
Flamingo Wash, Algonquin Drive to Maryland Parkway, Construction	September 2004
Flamingo Wash, Desert Inn Road to Spencer Street, Design	July 2004
Flamingo Wash, I-515 to Boulder Highway, Construction	September 2004
Flamingo Wash, I-515 to McLeod Drive (Phase III), Design	August 2003
Flamingo Wash, McLeod Drive to Maryland Parkway (Phase II), Design	September 2003
Indian Springs Flood Control Improvements, Design	May 2004
Lower Flamingo Detention Basin, Design	January 2005
Muddy River West Levee - Moapa Valley, Design	December 2004
Orchard Detention Basin, Design	November 2003
Red Rock Channel, Naples Branch, Construction	August 2004
Sloan Channel, Las Vegas Wash to Charleston Boulevard, Construction	August 2004
Tropicana North Branch Detention Basin, Design	July 2004
Upper Duck, Central Duck, Lower Blue Diamond, & Bird Springs Detention Basins, Right-of-Way & Design	November 2003
<i>US Army Corps of Engineers Project</i>	
F-4 Debris Basin and Channel, Design	March 2004
F-4 Debris Basin and Channel, Construction	June 2005
Upper Blue Diamond Diversion Channel, Design	August 2003
Upper Blue Diamond Diversion Channel, Construction	January 2005

**PROJECTS SCHEDULED
FOR WORK IN
FISCAL YEAR 2003-04**

continued

HENDERSON

Boulder Highway Channel, Design	September 2003
Boulder Highway Channel, Construction	December 2004
C-1 Channel, Upper & Middle Reaches - Vermillion Drive to Boulder Highway, Construction	January 2004
Drake Channel, Design	April 2004
Equestrian Detention Basin Outfall, Design	August 2003
Gibson Conveyance System, Design	January 2004
Northeast Detention Basin and Levee, Design	July 2004
Pittman-Pecos West Conveyance and Eastern Avenue Tributary, Design	November 2003
Pittman Wash - Burns, Design	April 2004
Pittman Wash - Gibson, Construction	December 2004
Pittman Wash Railroad Channel, US-95 to Major Avenue, Construction	October 2004
Pittman Wash Railroad Channel, Design	October 2003
Pittman Wash Railroad Channel (Phase I), Construction	July 2005
Southwest Pittman Detention Basin and Outfall, Design	October 2003

LAS VEGAS

Alta Parallel System, Design	August 2004
Ann Road Detention Basin (aka CAM-10 Detention Basin), Design	January 2004
Ann Road Detention Basin (aka CAM-10 Detention Basin), Construction	January 2005
Crystal Water Way, Lake South Drive to Desert Inn Road, Local Drainage Construction	October 2003
Decatur/Elkhorn/Rainbow System Predesign, Design	January 2005

Freeway Channel - Charleston Lateral, Construction	September 2004
GNC - Lone Mountain Road (El Capitan Way to the Western Beltway), Design	July 2004
Gowan North - Buffalo Branch (Cheyenne Avenue to Lone Mountain Road), Construction	June 2004
Gowan North Channel - Alexander Drive to Lone Mountain Road and Lone Mountain Outfall, Design	September 2003
Gowan North System - Phase III: Alexander Road to Lone Mountain Road, Construction	January 2005
Gowan Outfall - Lone Mountain Branch, Design	July 2004
Holmby Channel, Buffalo Drive to Rainbow Boulevard, Local Drainage Construction	May 2004
Lone Mountain System - Cliff Shadows Parkway to the Beltway, Construction	September 2004
Lone Mountain System - Lone Mountain Detention Basin Outfall to Durango Drive, Construction	September 2004
Oakey - Meadows Storm Drain, Design	January 2005
Peak Drive System (Jones Boulevard to Michael Way), Design	June 2004
Upper Las Vegas Wash Facility Study, Design	January 2005

MESQUITE

Abbott Wash Channel, I-15 to Virgin River, Design	October 2003
Abbott Wash Conveyance System, Pioneer Boulevard to the Virgin River, Construction	April 2005
Town Wash Conveyance, I-15 to Virgin River, Design	August 2003

NORTH LAS VEGAS

A-Channel/Lake Mead Boulevard to Alexander Road (Phase IV), Design	November 2003
"A" Channel Three Bridges Project (Cheyenne Avenue, Las Vegas Boulevard, and Carey Avenue), Construction	November 2004
Centennial Parkway Channel East, Design	December 2003
Cheyenne Peaking Basin, Collection and Outfall - Alexander Road to Cheyenne Avenue, Construction	September 2004
Las Vegas Wash - Losee Road, Construction	August 2004
Las Vegas Wash Main Branch, Cheyenne Avenue to Lake Mead Boulevard, Design	December 2004
Range Wash - Lamb Boulevard Storm Drain, Design	July 2004
Simmons Street Channel, Design	September 2003
Simmons Street Channel, Construction	October 2004
Tributary to the Western Tributary at Alexander Road, Design	November 2003
Tributary to the Western Tributary at Alexander Road, Construction	December 2004
Upper Las Vegas Wash (Phase I), Design	November 2003
Upper Las Vegas Wash, Craig Road to Elkhorn Road (Phase I - Centennial Parkway to Craig Road), Construction	November 2005

SPECIAL DISTRICT RECOGNITION 2002/03

2002

2nd place Silver Circle award from 3CMA – for Best Technology – Stormwater web site

2002

3rd place Award of Excellence from 3CMA for 2001-02 Annual Report

2002

Electronic Media Awards from Working in Communications

- 1st place EMA – Lawn Public Service Announcement
- 1st place EMA – The Flood Channel Flood Threat Recognition System episode
- 3rd place Award of Merit – The Flood Channel Flood Safety episode

2002

Public Relations Society of America Pinnacle Awards

- 2nd Place Award of Excellence – Flood Channel Flood Threat Recognition System
- 2nd Place Award of Excellence – Flood Channel Flash Flood Season/Safety
- 2nd Place Award of Excellence – 2000-01 Annual Report
- 3rd Place Award of Merit – Splash School Curriculum

2002

1st Place Crystal Award from the International Communicator Awards for The Flood Channel History of Flooding episode

2002

International Association of Business Communicators (Las Vegas Chapter)

- 1st Place Bronze Quill Award – The Flood Channel History of Flooding
- 1st Place Bronze Quill Award – 2001-02 Annual Report
- 1st Place Bronze Quill Award – July 2002 Flood Safety News Conference
- 2nd Place Award of Excellence – The Flood Channel Flood Safety episode
- 3rd Place Award of Merit – Lawn Fertilizer Public Service Announcement

2002

National Finalist in the Vision Awards competition for The Flood Channel History of Flooding episode

2003

Engineering Excellence Award for flood control improvements on the Flamingo Wash at Boulder Highway from the American Council of Engineering Companies of Nevada

2003

1st Place Videographer Award for The Flood Channel History of Flooding episode

2003

Project of the Year Award from the Floodplain Management Association (FMA) for the District's web site.

2003

1st place award for FloodView, the District's internal flood information application, from the ESRI International User Conference Software Applications Fair.

2003

Distinguished Budget Presentation Award from the Government Finance Officers Association (GFOA) for the District's Fiscal Year 2002-03 budget document.

Information

Copies of the following documents are available (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 Programs
- 5 Policies and Procedures Manual
- 6 Operations and Maintenance Manual
- 7 1991 Flood Insurance Study Hydrology Report
- 8 Flash Floods: Hidden Dangers Brochure
- 9 Flood Safety School Curriculum
- 10 Best Management Practices Stormwater Brochure

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