

URBAN DRAINAGE ANI FLOOD CONTI-DISTRICT

••• 2017 ANNUAL REPORT •••

Protecting people, property and the environment through preservation, mitigation and education since 1969.

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SOUTH PLATTE RIVER, RIVER RUN

2017 – THE YEAR OF CHANGE

It is with great pride that I present to you the Flood Control District's first ever, Annual Report. We felt this report fitting to begin in 2017 as it reflects the theme that has carried throughout a successful and exciting year. The theme of "Change".

In 2017, we merged the Floodplain Management and Master Planning programs into a new Watershed Services group. We created a new Operations and Development group. We rebranded our Design, Construction, and Maintenance program as our Stream Services group and then re-aligned our staff to a watershed service approach. We created a new Development Services Enterprise to better guide the land development community toward lower maintenance stream improvement infrastructure. We also realized that our annual publication, the Flood Hazard News (FHN) had run its course. Created in 1971, the FHN served as our year in review, successfully capturing our progress and accomplishments. In 2017, we decided to replace the FHN with an Annual Report. This report aims to create a more condensed yet informative summary of each year.

Before you dive in, I would be remiss if I didn't add that the accomplishments over the past year and the work ahead both depend on the support and contributions of our Board of Directors, our local government partners, and our dedicated staff. I am immensely grateful to all who support and contribute to our success.

— **KEN MACKENZIE**, *Executive Director*



MAYOR HEIDI WILLIAMS City of Thornton, Chair



MAYOR BRUCE BECKMAN City of Littleton, Treasurer



MAYOR PRO TEM GREG STOKES City and County of Broomfield, Secretary



COMMISSIONER CHAZ TEDESCO Adams County, Chair Pro Tem



MR. DAVE SELLARDS Retired Engineer, Member-at-Large

Mayor Herb Atchison — *City of Westminster* Council Member Joyce Downing — City of Northglenn Mayor Pro Tem Bob Fifer — City of Arvada Commissioner Deb Gardner — Boulder County Council Member Stacie Gilmore — *City and County of Denver* Deputy Mayor Happy Haynes — City and County of Denver Mr. Mark Hunter — Retired Engineer Mayor Joyce Jay — City of Wheat Ridge Council Member Paul Kashmann — City and County of Denver Mayor Pro Tem Angela Lawson — City of Aurora Council Member Paul Lopez — City and County of Denver Mayor Adam Paul — City of Lakewood Mayor Stephanie Piko — City of Centennial Commissioner Nancy Sharpe — Arapahoe County Commissioner Libby Szabo — Jefferson County Commissioner Lora Thomas — Douglas County Council Member Mary Young — City of Boulder

GOVERNING BODY • 20 Locally Appointed Elected Officials • 2 Licensed Professional Engineers

AWARD WINNING 2017 PROJECT

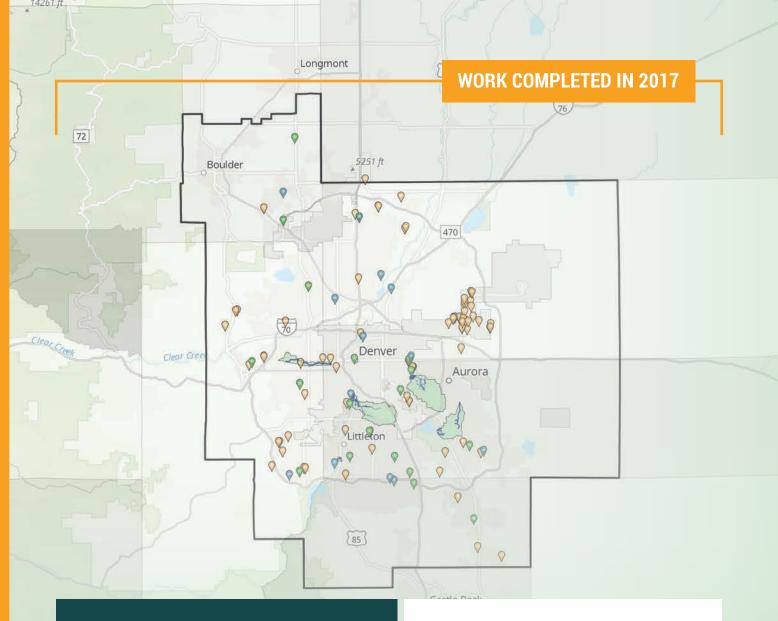
LITTLE DRY CREEK AT WESTMINSTER STATION

Colorado Association of Stormwater & Floodplain Managers Statewide Project of the Year American Public Works Association Statewide Project of the Year



PROJECT SNAPSHOT

- Cost \$16.2 million Timeline 2005 to 2017
- Lowered the 100-year floodplain by five feet
- Integrated 172 acre-feet of flood storage detention
- Relocated and restored 4,100 linear feet of Little Dry Creek
- Restored and created aquatic habitat and riparian corridor
- Planted over 450 trees and 26,000 square feet of shrubs and grasses
- Tunneled 800 feet of utility pipeline up to 108-inch in diameter under Federal Blvd.



FLOOD CONTROL DISTRICT...

- Covers 1,608 square miles
- Includes 7 counties and
 - 35 incorporated cities and towns
- Focus 1,600 miles of major streams
- Serves 2.8 million people

LEGEND

Capital Construction 13 Restoration Maintenance 21 Maintenance Eligibility Projects 83 Planning Studies & Floodplain Mapping 5 —District Boundary



PINEY CREEK CALEY TO LIVERPOOL

After

<u>After</u>

Be

BIG DR



WESTERLY CREEK AT MONTVIEW

CORE VALUES

- *Advocate* for public safety
- Support local governments
- Use public funds responsibly
 Be stewards of watersheds and streams
- Advance the practice

EVERY YEAR BIG STORMS HAPPEN SOMEWHERE IN THE DENVER METRO AREA

Occasionally they cause significant damage and disruption to public services. On rare occasions, the flood impacts are far worse resulting in catastrophic property losses, destruction of public infrastructure, and fatalities.

Although flood warning services cannot prevent a flood, they reduce the consequences. People in harm's way will be warned well before serious flooding strikes through a close partnership with the National Weather Service and local emergency management offices.

2017 HIGHLIGHTS

- 219 support calls & 848 forecast products issued
- 14 million ALERT gage reports collected & archived
- New ALERT base station receiver in Westminster
- Two new ALERT gaging stations in Thornton



Real-time ALERT data, custom weather displays, flood forecasts, subscription services and other early flood detection tools can be found at: <u>alert5.UDFCD.org</u> and <u>UDFCD.onerain.com</u>.

41 DAYS WITH FLOOD POTENTIAL IN 2017					
May	<mark>8</mark> , 9, 17-18, 26, 29	6			
June	1, 2, 5, 6, 7, 11-12	7			
July	8 , 12, 13, 14, 15, 20 , 21, 23 , 25, 26 , 27, 28, 29, 30	14			
August	3 , 5 , 6 , 7 , 10, 12 , 13, 14 , 15, 16, 22, 30	12			
September	11, 17	2			

• Red dates are when automated rain gauges exceeded alarm thresholds.

• <u>Blue dates</u> indicate heavy rainfall only affected areas outside UDFCD's main area of concern such as the Hayman Burn Area in SW Douglas County and watersheds in northern Boulder County.

- Green dates are when a NWS flash flood watch was the highest threat level reached.
- <u>Orange</u> designates a flash flood warning.



THE "1,000 YEAR" FOX HILL FLASH FLOOD OF 2017 Sometimes extreme rainfalls go relatively unnoticed. The storm that occurred on July 26, 2017 that struck a small area south of Parker in unincorporated Douglas County is a notable example. STORM DATE JULY 26 PHOTO DATE JULY 28

KENNEYS RUN, WEST FORK

CAPITAL IMPROVEMENTS CONSTRUCTION FUND Total Expenditures = \$253,156,637

Adams \$30,754,227

Arapahoe \$53,445,966

Boulder \$27,979,082

Broomfield \$3,732,752

Denver \$71,872,011

Douglas \$18,162,781

Jefferson \$47,209,817

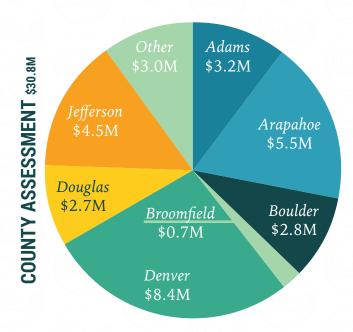
2017 DISTRICT EXPENDITURES \$29.4M

EXPENDITURES (1974-2017)

Construction Projects \$10.5M Maintenance Services \$9.1M Payroll & Benefits \$4.1M South Platte River \$1.6M Office & Operations \$1.3M Flood Warning \$0.9M Drainage Master Plans \$0.6M Flood Plain Management \$0.4M Special Projects \$0.4M

Contract Services \$0.3M Local Expenses & Travel \$0.1M

2017 • Mill levy = 0.56 • Revenue = 30,796,221 • Expenditures = 29,381,951



2017 DISTRICT FINANCIAL INFORMATION

SERVICE FOCUSED WORK STRUCTURE

Watershed Services	Stream Services	Operations & Development Services	Flood Warning & Information Services
Leyden Greek Major Drainageway Plan and real Street Sciences Magnetic MASTER PLANNING	CAPITAL IMPROVEMENTS	CRITERIA ENGINEERING STANDARDS	FLOOD WARNING SYSTEMS
FLOODPLAIN PLANNING	RESTORATION	PERMIT ASSISTANCE	RAIN & STREAM GAGE NETWORK
DEVELOPMENT SERVICES	STREAM	RESEARCH	EMERGENCY MANAGEMENT SUPPORT

WELCOME NEW STAFF



Brooke Seymour started in March and has 11 years of experience, primarily with McLaughlin Water Engineers (Merrick & Company). Brooke is a graduate of Colorado State University.



Morgan Lynch returned to the District in March. She started as an intern with us while attending Colorado State University, worked a short time in Texas, then returned to work for CH2M.



Kelsey Mehan started working as a receptionist for the District in October. She has had 5 + years of Customer Service experience and is thrilled to be a part of the work that goes on at the District.