



# UDFCD

## SERVICES

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## **INTRODUCTION**

This Summary of Services provides an overview of the organization, funding, and services provided by the Urban Drainage and Flood Control District (UDFCD). Readers are encouraged to contact UDFCD for more detailed information about items discussed in this summary.

UDFCD was established by the Colorado legislature in 1969 to assist local governments in the Denver metropolitan area with multi-jurisdictional drainage and flood control challenges. UDFCD covers an area of 1,608 square miles that includes Denver, parts of the six surrounding counties, and 35 incorporated cities and towns. UDFCD focuses its resources on over 1,600 miles of major streams and serves a population of approximately 2.8 million.



*Utah Park in the City of Aurora*

## **GOVERNING BODY**

UDFCD is an independent, special district governed by a 22-member board of directors. The makeup of the board is unique, in that its 20 appointed members are locally elected officials (mayors, mayors pro tem, county commissioners, city council members). These 20 members select two licensed professional engineers to complete the board. A current list of board members is available at UDFCD's website.

## **FUNDING**

Upon creation of UDFCD, the Colorado legislature authorized a taxing mill levy of 1.0 mill. Through the Colorado Taxpayer's Bill of Rights (an amendment to the Colorado Constitution), the taxing authority has been reduced to approximately 0.56 mill. Taxes collected are returned to the communities in each county pro rata in the form of planning studies, capital improvement projects, flood hazard mapping and warning systems, stream rehabilitation and restoration, routine maintenance services, education and outreach, and review services for new development.

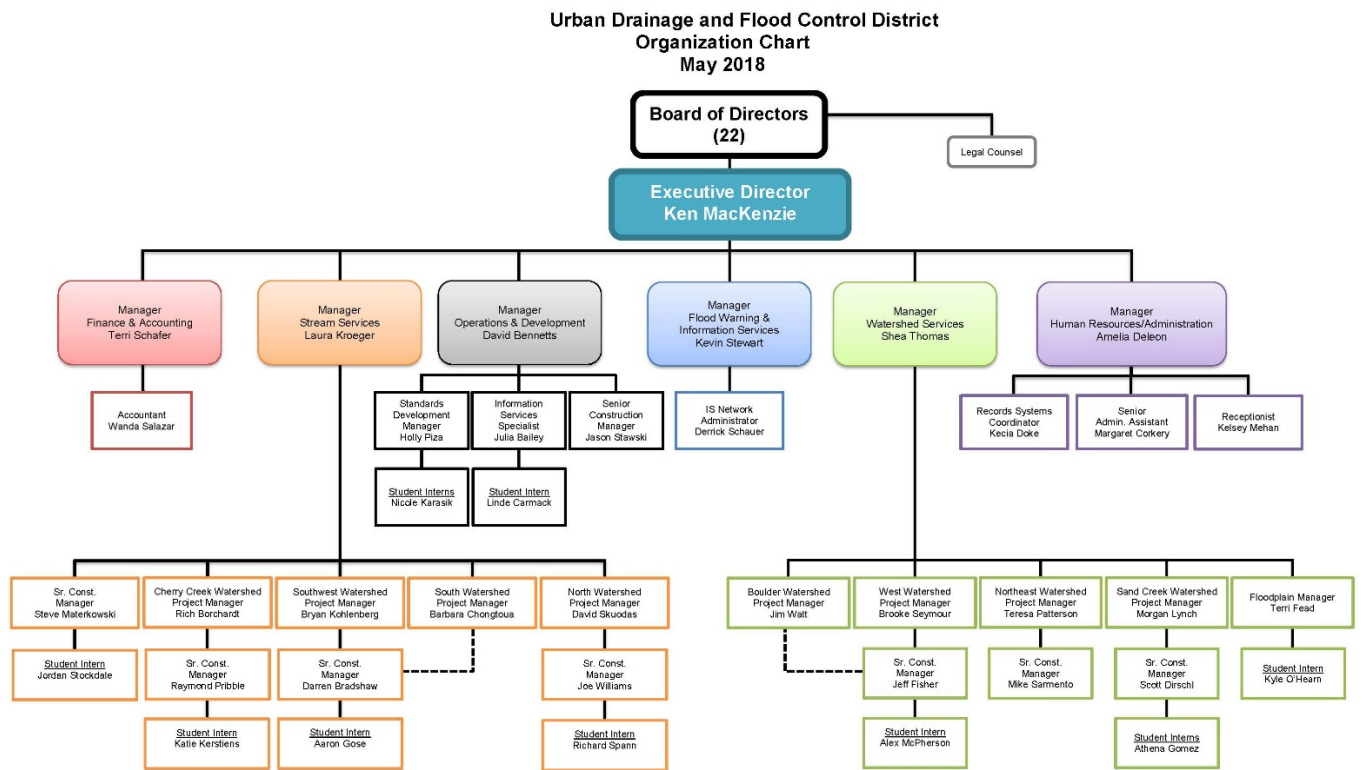
### **MISSION AND VISION STATEMENT**

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

# ORGANIZATIONAL STRUCTURE

As trusted stewards of public funds, the staff of UDFCD focuses on effectively and efficiently implementing strategic goals to protect people, property, and the environment by utilizing teams of experts. UDFCD employs seasoned Project Managers who are licensed Professional Engineers to lead planning, design, construction, and long-term management of flood mitigation projects. UDFCD managers form project teams comprised of outside consultants and contractors who work as an extension of the UDFCD staff to provide technical expertise. Experienced Construction Managers work closely with contractors and local governments to ensure the overall best value project is constructed. This approach to assembling efficient and effective teams enables UDFCD to control overhead costs and focus more funding toward mitigation projects, flood warning, and preservation.

UDFCD services are divided into four program areas, each led by a Program Manager: Watershed Services; Stream Services; Operations and Development; and Flood Warning and Information Services.



## **MASTER PLANNING**

UDFCD partners with communities to develop watershed master plans. Master plans requested by local government(s) are scheduled in accordance with the strategic plan. These studies are an important tool to help identify remedial stormwater quality and flood risk management projects for construction, and to guide new land development projects consistent with regional drainage and flood control needs. Master plans also provide valuable input to UDFCD's Five-Year Capital Improvement Plan by identifying essential rights-of-way and opportunities to preserve open spaces for flood conveyance and other public uses.

Completed master plans can be obtained from our [Interactive Map](#) on UDFCD's website.



*Master Plans recommend improvements*

## **POLICY & ENGINEERING STANDARDS**

The Urban Storm Drainage Criteria Manual (USDCM) consists of three volumes:

- Volume One: Management, Hydrology, and Hydraulics
- Volume Two: Structures, Storage, and Recreation
- Volume Three: Stormwater Quality

UDFCD actively maintains the USDCM, providing updates on an annual basis and revisions that are more significant approximately every 10 years. When significant revisions are made, UDFCD provides pertinent training. In addition to these training sessions, UDFCD takes advantage of other outreach opportunities to inform and educate both public and private entities on how they benefit from the criteria. UDFCD also provides and maintains software and Excel™-based workbook products to assist engineers using the USDCM with design and review. There are currently 17 different software and workbook tools available.



## **NPDES PERMIT ASSISTANCE**

UDFCD maintains a close relationship with the Colorado Department of Public Health and Environment (CDPHE) as well as local governments and other regulatory entities within the District. UDFCD hosts quarterly meetings with CDPHE and municipal separate storm sewer system (MS4) permittees, provides comments to CDPHE on draft permits, and partners with local governments on projects related to obtaining permits.

## **STORMWATER QUALITY RESEARCH**

UDFCD partners with both local governments and private entities to monitor a number of stormwater Best Management Practice (BMP) sites. Monitoring of various stormwater quality facilities provides data useful for understanding the effect of a particular BMP on water quality and for developing new criteria. These data also benefit the stormwater community on an international level as UDFCD submits data to the International BMP Database. UDFCD samples inflow and outflow and collects data on rainfall and runoff at several BMP sites.

UDFCD's stormwater quality research objectives include:

- Measurement of the Event Mean Concentration (EMC) of different constituents for both treated and untreated stormwater.
- Assessment of long-term performance of each BMP with regard to stormwater quality and stormwater volume reduction.
- Evaluation of design, construction, and maintenance practices.



*Collecting water quality samples at the raingarden located at 21<sup>st</sup> Street and Iris Street in Jefferson County*

## **DEVELOPMENT REVIEW**

Local governments can refer development projects to UDFCD for review. Projects typically involve construction in or near a floodplain. This service is provided through the Watershed Services Program of UDFCD, which strongly recommends that the owner and/or owner's representative meet with UDFCD early in the conceptual phase of design.

UDFCD reviews these projects for maintenance eligibility. When approved, these projects become eligible for UDFCD maintenance assistance that local governments may request.

UDFCD maintains a maintenance eligibility status report for each community that identifies maintenance eligible reaches on the Interactive Map on UDFCD's website.

New development plans adjacent to a floodplain should be encouraged to preserve the natural floodplain corridor to ensure the beneficial functions of the wetlands and riparian area. Such amenities are healthy components of livable communities and vibrant economies that will create highly desirable character for any new development. See UDFCD's [floodplain preservation brochure](#) for examples.



*Private development construction inspection for UDFCD maintenance eligibility*

## **FLOODPLAIN MAPPING**

Landowners can refer to the Interactive Map on UDFCD's website to determine their proximity to the mapped floodplain. This delineation is based on the best information available. UDFCD assists local governments to identify and update flood risk potential and floodplain boundaries due to both natural and anthropogenic changes that occur over time. This is done by way of Flood Hazard Area Delineation studies (FHADs). FHADs are often performed in conjunction with master planning studies.

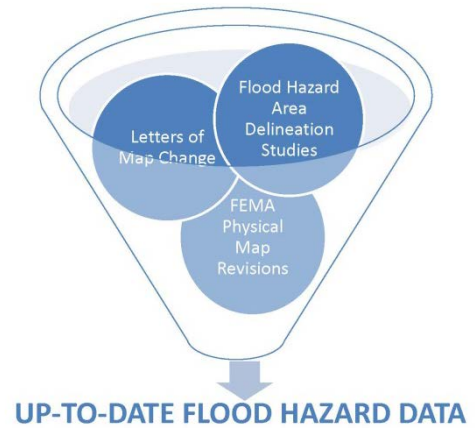
UDFCD works with the Federal Emergency Management Agency (FEMA) as a Cooperating Technical Partner (CTP), receiving annual grants from FEMA to review requests for Letters of Map Change (LOMC) to Flood Insurance Rate Maps (FIRMs) at the local level. Download the [LOMC Database](#) for the status of specific projects and the Letter of Map Revision/Conditional Letter of Map Revision (LOMR/CLOMR) submittal guidelines when submitting these items for review.

UDFCD also assists communities with floodplain regulations to assure conformance with FEMA's National Flood Insurance Program (NFIP). When a community is in the NFIP, it means that flood insurance is available for their citizens. The Community Rating System (CRS) is a program within the NFIP where, through floodplain management activities, local governments can help reduce the cost of flood insurance in their communities.

## **FLOOD SAFETY**

UDFCD works with local governments to ensure the safety of their citizens by providing local officials with early notifications of heavy rain and flood threats in partnership with the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service. Local officials act on these notifications to warn people in affected high-risk areas. The public can also access real-time rainfall, streamflow, and weather information from the ALERT System. Archived data from past events is also available. [Twitter](#) users receive tweets when heavy rainfall is occurring.

UDFCD's flash flood prediction program (F2P2) operates from April through September. Current and archived forecast products and flood threat notifications from available the [F2P2 webpage](#).



*Fourmile Canyon Creek in Boulder County  
September 2013 with ALERT rain gage inlayed.*

## **CAPITAL IMPROVEMENTS**

Capital improvement projects implement master plan recommendations and are carried out through the Five-year Capital Improvement Plan (CIP). Each year, UDFCD Board adopts a Five-year CIP that lists projects and identifies UDFCD anticipated funding. Stream Services staff meet annually with the local government representatives to prioritize projects and is the basis for the Five-year CIP.

UDFCD partners with local governments on CIP projects by providing funding, project management, and technical expertise. Typically, the local governments own the property and are responsible for the drainage improvements. It is important that the project sponsors are committed to the long term benefits and management of projects. Therefore, UDFCD's investment must at least be matched by the other project sponsors and be on publically owned land (or easement).

Preservation is another effective tool to protect people, property, and the environment. UDFCD supports preservation opportunities through capital improvements. UDFCD has funding set aside to assist the local government in purchasing properties in the floodplain that have been identified for preservation at a 50% match of value of the property when they go on the market.. Requests are addressed on a first-come, first-served basis.

The UDFCD [Interactive Map](#) identifies the capital improvement projects completed to date and provides access to the constructed drawings (as-builts) and design reports.



*Havana Pond Dam  
Left: Post 2013 flood Right: During construction*

## **STREAM MANAGEMENT**

Stream management projects, also referred to as maintenance projects, include restoration work on past capital projects or on projects approved by the Maintenance Eligibility Program. The Stream Management Plan is developed on a yearly basis and identifies maintenance projects by county for work to be performed that year. Each year, a Stream Services project request letter is sent to local government representatives to prioritize projects and responses to that letter are the basis for the Stream Management Plan.

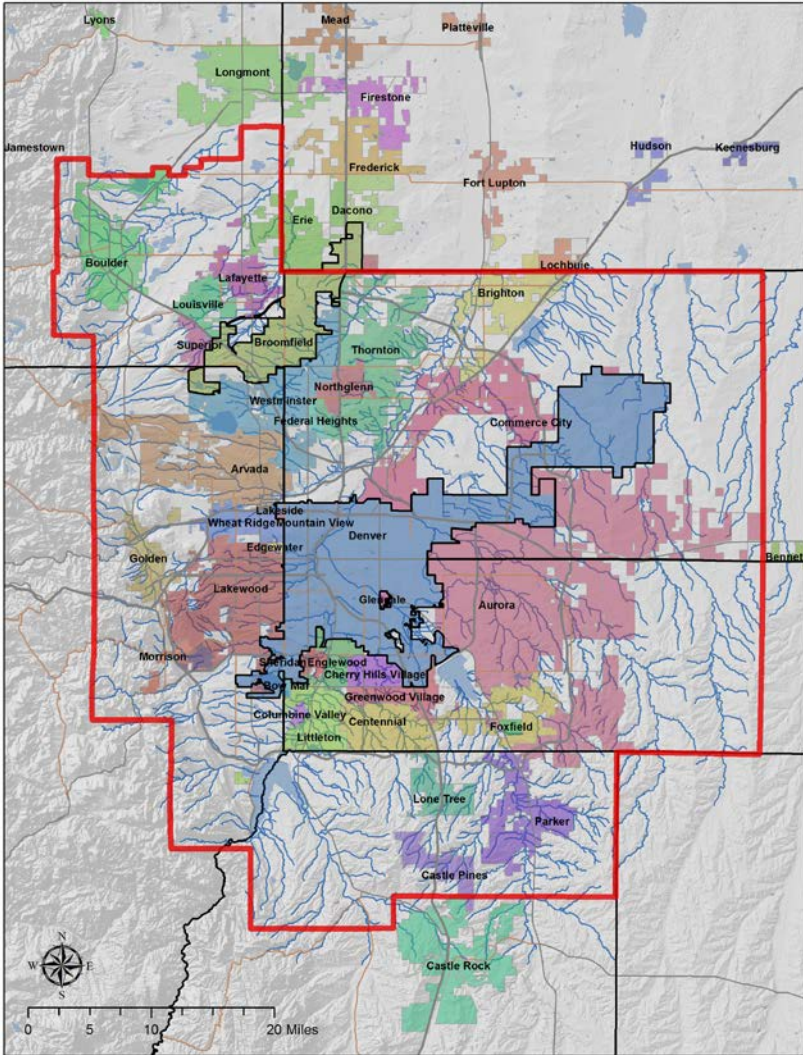
Stream management projects maintain the network of streams for the purpose of reducing flood risks and promoting the natural beneficial functions of the floodplain. This type of work includes routine debris removal, vegetation management, sediment removal, as well as bank stabilization and drainage structure repairs. Please see our [Stream Management webpage](#) for plans and schedules.



*Babi Yar Tributary after a storm event*

Stream management restoration project as-built drawings and maintenance eligible stream and river reaches can be found on the [Interactive Map](#).

## **DISTRICT MAP**



Please visit [www.udfcd.org](http://www.udfcd.org) for:

- A current list of members of the Board of Directors and the District staff
- Copies of our annual newsletter, Flood Hazard News
- Lists of current and future construction projects
- Local government links
- Information on all of the District's services"
- Real-time weather conditions, rainfall totals, and stream and reservoir water levels

## **HOW TO CONTACT US**

**ADDRESS:**

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**PHONE:** (303) 455-6277

**E-MAIL:** [udfcd@udfcd.org](mailto:udfcd@udfcd.org)

### **UDFCD CORE VALUES**

1. Advocate for public safety by reducing flood damage, by increasing community awareness of flood risk, and through responsible design and community development.
2. Support local governments by building partnerships, influencing responsible practices, and promoting community welfare.
3. Use public funds responsibly through flexible and efficient processes and by leveraging resources to maximize community and environmental benefit.
4. Be stewards of watersheds and streams by promoting natural and beneficial functions of floodplains and responsible watershed management.
5. Advance the practice of science, engineering, and management of watersheds and streams through research, innovation, and education.