

# Jefferson County Drainage District No. 6

2020 Updates  
SETxFCS

Presented by: **Dr. Joseph G. Majdalani, PE, CFM**  
**General Manager**



# History

- ◆ **Jefferson County Drainage District No. 6 (DD6) was Established in 1920**
- ◆ **DD6 is Governed by a 5-Member Board of Directors Appointed by the Jefferson County Commissioners Court**
- ◆ **This 5-Member Board Appoints the General Manager**
- ◆ **DD6 Serves Beaumont, Bevil Oaks, China, Nome and the Communities of Fannett, Northwest Forest, Hillebrandt Acres, Cheek and LaBelle, as well as Farm and Timber Land in Between**



# Mission

◆ **Alleviate Flooding of Private Homes and Businesses Throughout the District by Controlling Storm and Flood Waters from Rivers, Streams and Channels, in an Effort to Drain and Reclaim Overflowed Lands**

◆ **The District Accomplishes its Mission By:**

- ◆ **Devising Flood Damage Reduction Plans**
- ◆ **Implementing the Plans**
- ◆ **Maintaining the Infrastructure**

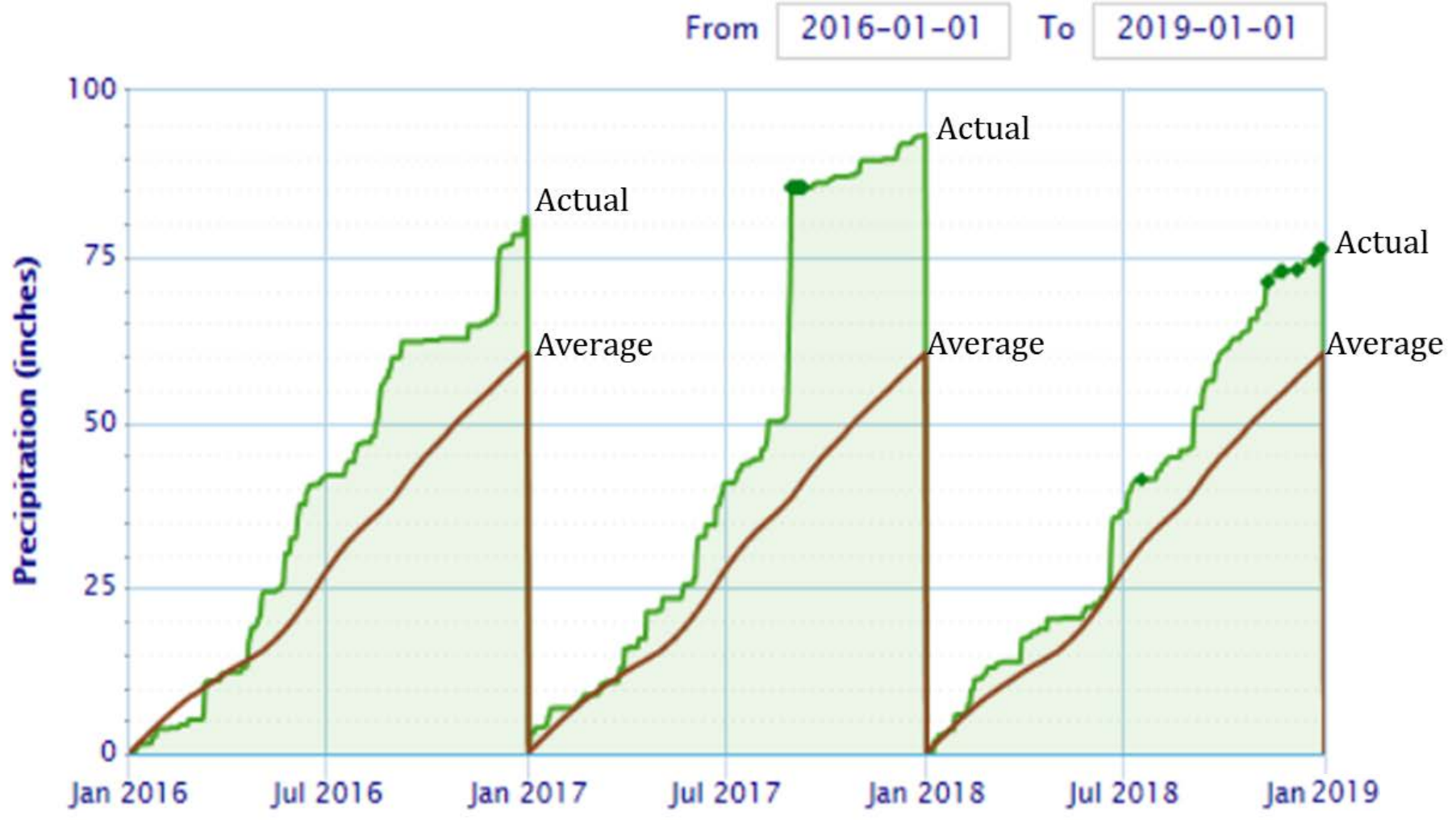


# DD6 at a Glance

- ◆ Covers a Little Over 487 Sq. Miles
- ◆ Drainage Network Consists of Over 1,070 Miles of Channels and 38 Detention Basins
- ◆ The Average Annual Precipitation in Jefferson County is 59” Per Year
- ◆ One Day’s Max Rainfall During Harvey was 27.4”
- ◆ One Day’s Max Rainfall During Imelda was 35.39”
- ◆ Current Design Criteria for One Day’s Rainfall During a 100-Year Flood Event is 13”



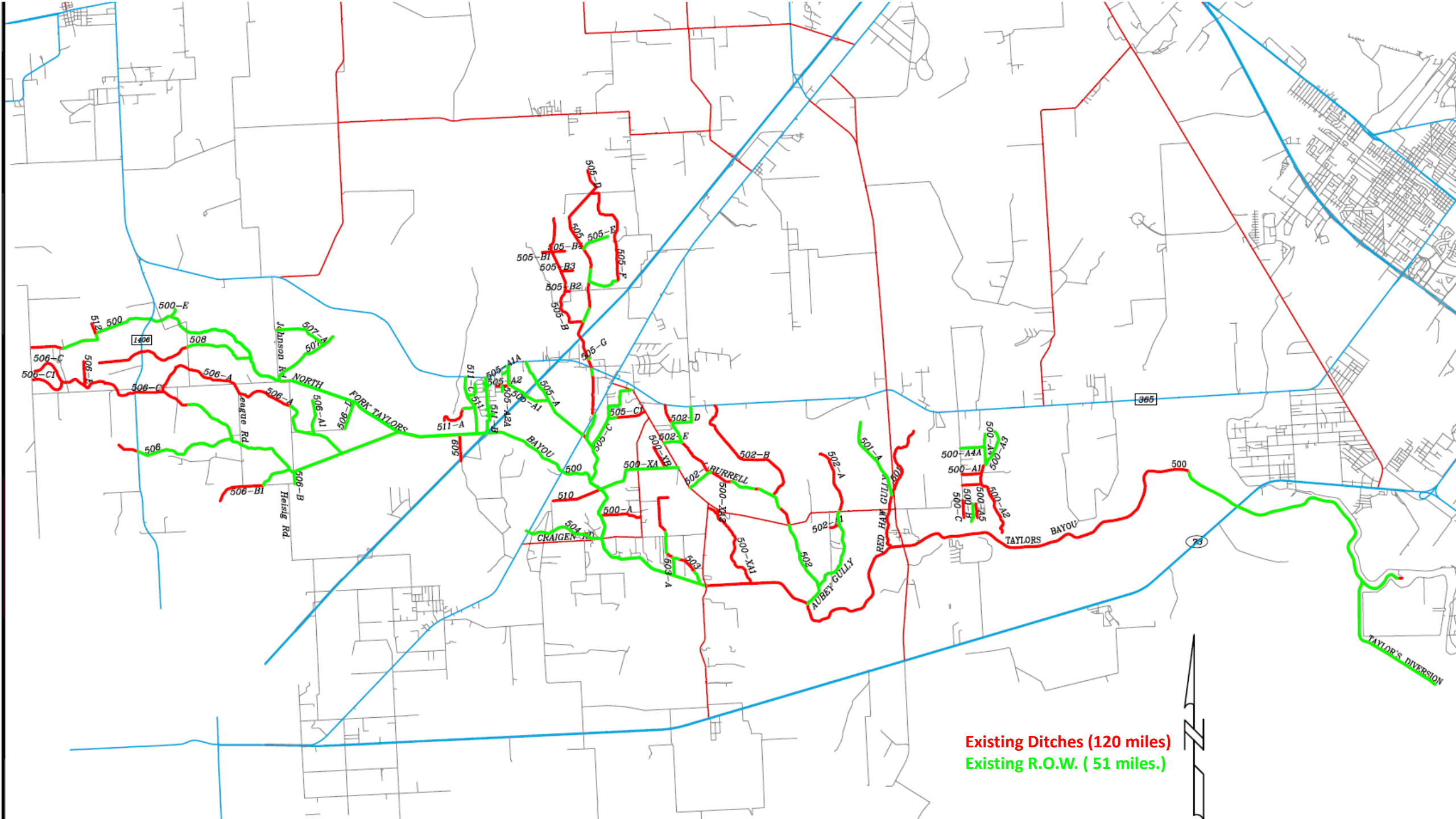
# Precipitation 2016-2019



# Obstacles

- ◆ High Intensity Rain Events Occurring More Frequently
- ◆ Flat Terrain
- ◆ Unstable Soils
- ◆ High and Low Temperatures
- ◆ Aging Infrastructure
- ◆ Flat Tax Base
- ◆ Limited Right-of-Way



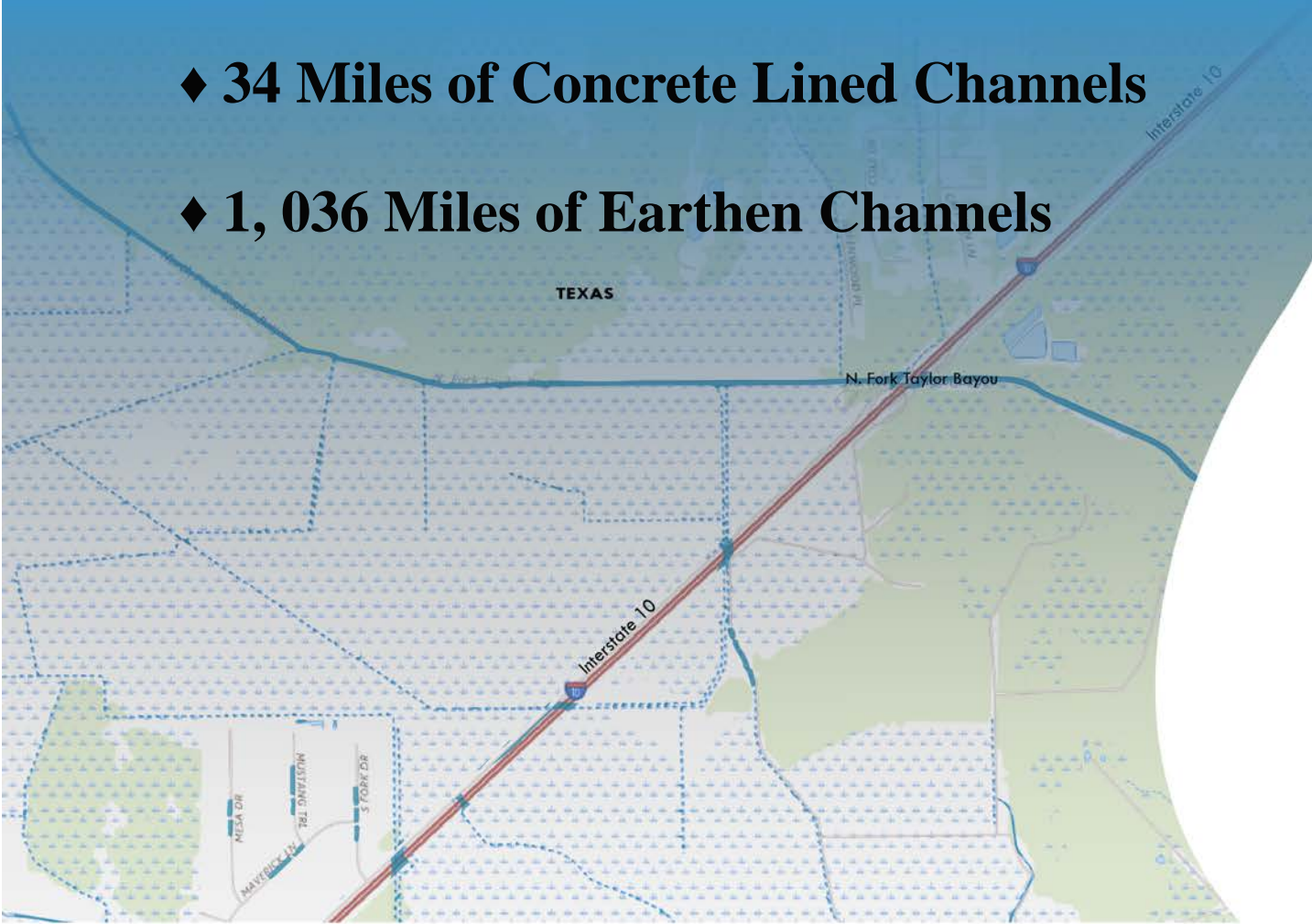


Existing Ditches (120 miles)  
Existing R.O.W. ( 51 miles.)

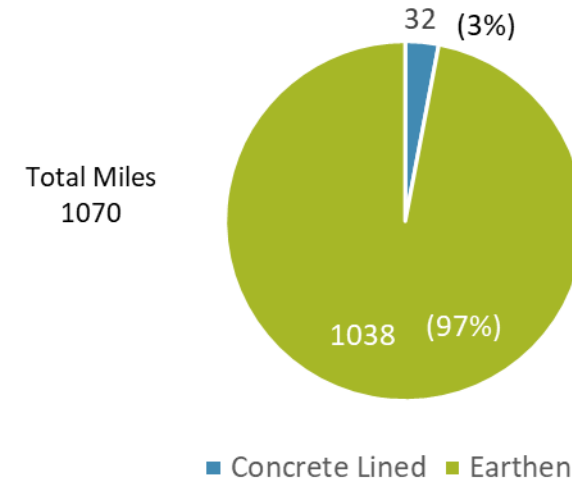
# Special Projects Condition Assessment

◆ 34 Miles of Concrete Lined Channels

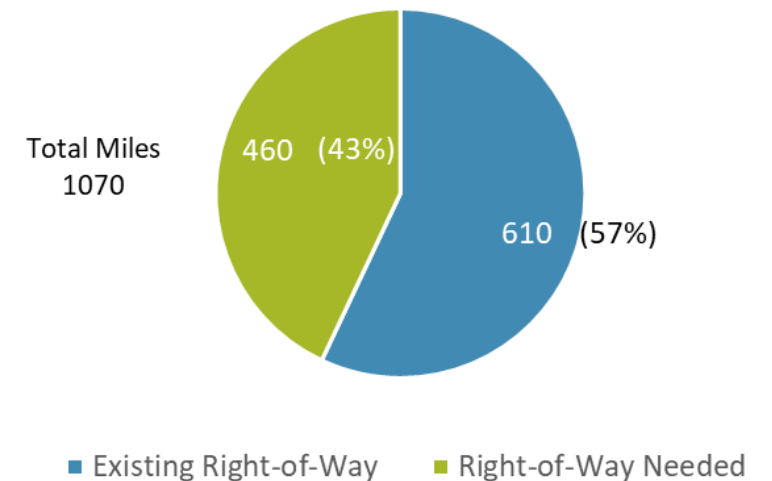
◆ 1, 036 Miles of Earthen Channels



Concrete and Earthen Channels Within DD6



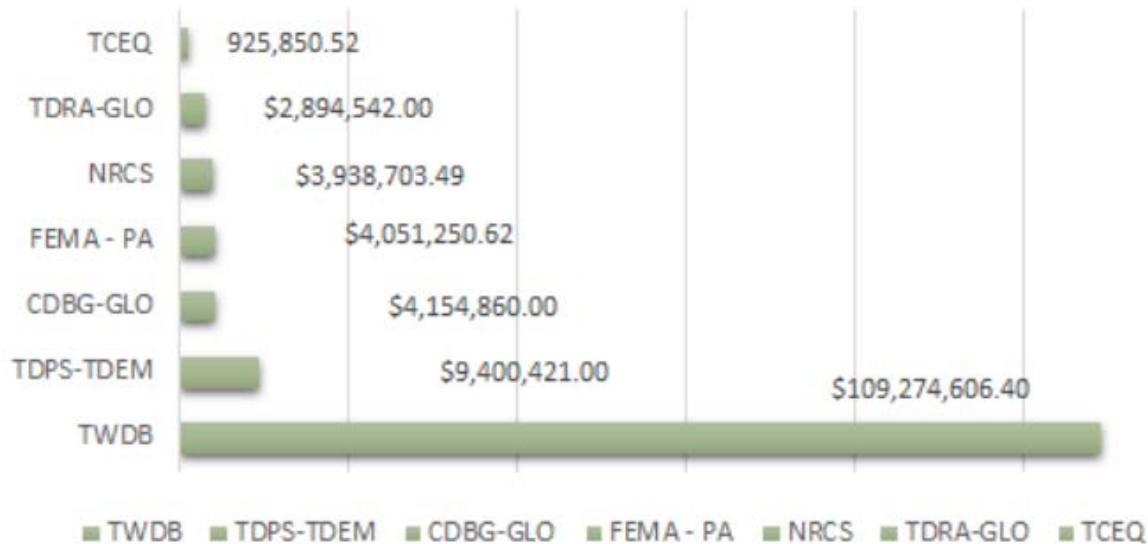
Concrete and Earthen Channels Within DD6



# Past Grant Projects

- ◆ Since 2003 DD6 Has Been Awarded Federal Grants for More Than 50 Projects
- ◆ Totaling \$134,640,234.03

Funding Dollars by Grantor



FEMA



# Current Grant Projects

## Totaling \$21,261,684

- ◆ Amelia Cutoff Community Flood Mitigation Project- Awaiting Award
- ◆ Ditch 1205 Byrd Gully Community Flood Mitigation Project- Awarded
- ◆ Elinor Street Project Community Flood Mitigation Project- Awarded
- ◆ McLean Community Flood Mitigation Project- Awarded
- ◆ Ditch 609 China Relief- Contract Executed
- ◆ Taylor's Bayou Drainage Project- Contract Executed
- ◆ Ditch 107 Rehabilitation Project- Awaiting Award
- ◆ Ditch 110 Rehabilitation Project- Awaiting Award



# Amelia Cutoff Flood Mitigation

- ◆ Located South of Washington Boulevard, East of the LNVA Canal, and West of IH-10 in South Beaumont
- ◆ The Detention and Diversion Channel Project will Redirect Flood Water Away from Amelia Cutoff Flume Structure
- ◆ The Estimated Cost is \$4,246,000



# Ditch 1205 Byrd Gully

- ◆ Begins at Dishman Road and Ends at Pine Island Bayou
- ◆ Channel and Crossing Improvements will Enhance Drainage System Performance and Mitigate Flooding
- ◆ The Estimated Cost is \$711,800



# Elinor Street Flood Mitigation

- ◆ Located in Central Beaumont Begins at the Intersection of Elinor Street and Eighth Street and Ends at the District's Ditch No. 110 Located Just North of Washington Boulevard
- ◆ Designed to Deliver Stormwaters from Roadside Ditches in the Surrounding Area to the District's Ditch No. 110 to Alleviate Area Flooding
- ◆ The Estimated Cost is \$1,493,000



# McLean Flood Mitigation Project

- ◆ Located in the Amelia Area, West of Beaumont
- ◆ New Storm Sewer Begins at Ney Street and Runs Along Calhoun Street, Ending at the Existing Gulf Terrace Detention Basin
- ◆ The Proposed Project will Address and Relieve Repetitive Shallow Home Flooding in the Area
- ◆ The Estimated Cost is \$4,040,480





# Taylor's Bayou Drainage Project

- ◆ Located Eight Miles Southwest of Beaumont On State Highway 124 Toward Fannett
- ◆ Project will Widen and Deepen the Bayou 500 Feet on Both Sides of the Existing Bridge
- ◆ Replace the Existing Bridge to Accommodate the Proposed Improvement
- ◆ Will Enhance Drainage
- ◆ The Estimated Cost is \$2,500,860



# Ditch 107 Rehabilitation Project

- ◆ Ditch 107 is Located in South Beaumont, Between Sarah Street and Cardinal Drive (Hwy-69), East of Fannett Road
- ◆ The New Concrete Liner Along Ditch 107 will Enhance the Performance of the Drainage Ditch and Improve Drainage for the Surrounding Area
- ◆ The Estimated Cost is \$958,000



# Ditch 110 Rehabilitation Project

- ◆ Ditch 110-B is Located in South Beaumont Between Seventh and Eighth Streets, North of Washington Boulevard
- ◆ Replacing the Failed Concrete Wall and Bottom of the Existing Ditch will Capture Lost Capacity and Restore the Structural Integrity of the System
- ◆ The Estimated Cost is \$696,000



# Current Grant Application

- ◆ **Project Name: Jefferson County DD6 Regional Watershed Plan Study**
- ◆ **Funded by Texas State Flood Infrastructure Fund**
- ◆ **The Estimated Cost is \$8.5 Million**

Drainage Area	HUC10 Name	HUC10 Number	Partially/fully included
Hillebrandt Bayou	Hillebrandt Bayou	1204020102	Fully
Taylor's Bayou	Lower Neeches Valley Authority Canal- Taylor's Bayou	1204020101	Fully
	Salt Bayou	1204020103	Partially
Pine Island Bayou	Pine Island Bayou	1202000701	Fully
	Little Pine Island Bayou- Pine Island Bayou	1202000702	Fully
	Boggy Creek- Black Creek	1202000703	Fully



# Developing CDBG Grant Applications

- ◆ Project Name: Cartwright Corley Area River Diversion \$100 Million
- ◆ Project Name: Russell Place Area River Diversion \$100 Million
- ◆ Project Name: Rehabilitation of Concrete Ditches \$100 Million
- ◆ Project Name: South Highland Area River Diversion \$100 Million
- ◆ Project Name: Bayou Din Detention Basin with Channel Improvements \$80 Million
- ◆ Project Name: Fannett Detention Basin Facility \$25 Million



# Needmore Diversion Channel and Structure



# Intracoastal Outfall Structure



# Maintenance



# QUESTIONS?

TEXAS

N. Fork Taylor Bayou

