Senate Committee on Agriculture, Water & Rural Affairs

Interim Report : 2017 Hurricane Harvey Response

to the

86th Legislature

November 2018

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Senate Committee on Agriculture, Water, and Rural Affairs

Senator Charles Perry, *Chairman*

Members: Senator José Rodríguez, Vice-Chair; Senator Brandon Creighton; Senator Bob Hall;
Senator Juan "Chuy" Hinojosa; Senator Lois Kolkhorst; Senator Borris Miles

Dear Members and Fellow Texans:

Enclosed is the 2017 Hurricane Harvey Interim Report from the Senate Committee on Agriculture, Water & Rural Affairs. I and the Committee thank Lieutenant Governor Dan Patrick for his commitment to building a more proactive state flood plan that will mitigate flooding. Over the course of the interim, the Committee has heard from Texans who shared their experiences, which shaped the ideas within the report.

Devastation from Hurricane Harvey stretched from counties, not just along the coast, but hundreds of miles inland. Additionally, flooding in the state is not limited to hurricanes and tropical storms. During the drafting of this report, the state experienced flooding from rain events that overwhelmed river systems. If implemented, this report will impact every area of the state.

To fully understand the events of Hurricane Harvey and catastrophic flooding in Texas, the committee held hearings in the areas directly impacted by the storm. The committee hearings held in New Caney and Wharton drew local, state, and federal officials who provided testimony about what worked and what needs to change. These hearings gave the committee the tools to make recommendations which will benefit the state.

As Chairman, I met with local, state, and federal officials one on one to hear how they believed our state could do better. I traveled to the hardest hit flood regions and spoke with county officials. I made a trip to Washington, D.C. to visit representatives with the Federal Emergency Management Agency, United States Army Corps of Engineers, Environmental Protection Agency, and soil and water conservation personnel. I held follow up meetings in Texas with regional representatives of these agencies to continue to understand where the state can make improvements and assist our federal partners. I was reminded that good things get done because good people care.

In the 86th session, I will introduce legislation detailing the creation of a State Flood Plan and the funding component. The plan will include measures to help prevent against, warn of, and mitigate flooding, and minimize the impact of a flood event, while developing the water supply when possible. The plan will take a comprehensive approach to coordination and collaboration with those charged with the task of flood planning and mitigation.

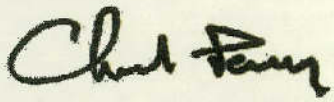
In closing, Texans and citizens from around the country met the initial challenge created by Hurricane Harvey. Events such as these bring out the best in humanity, and there were no better examples of this than the outpouring of help that descended upon Texas. The time is now to respond in a positive and

proactive way. I look forward to working with my colleagues in the legislature as well as federal and state agencies.

This report could not have been done without the support of the committee members, the federal, state, and local personnel being willing to invest the time to deliver real solutions. As Chairman, I would like to take this opportunity to thank them very much. A special thank you goes out to my committee staff and my Senate office staff for their efforts in this report. Katherine Thigpen's attention to detail deserves a special mention.

Once again, Texas has an opportunity to minimize heartbreak and economic loss for future Texans. I have no doubt, Texas will rise to the challenge.

Respectfully,



Chairman Perry,
Senate Committee on Agriculture, Water & Rural Affairs

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Senator Charles Perry, *Chairman*

Members: Senator José Rodríguez, Vice-Chair; Senator Brandon Creighton; Senator Bob Hall; Senator Juan "Chuy" Hinojosa; Senator Lois Kolkhorst; Senator Borris Miles

November 2, 2018

The Honorable Dan Patrick
Lieutenant Governor of Texas
Members of the Texas Senate
Texas State Capitol
Austin, Texas 78701

Dear Lieutenant Dan Patrick and Fellow Members:

The Senate Committee on Agriculture, Water and Rural Affairs of the Eighty-Fifth Legislature hereby submits its interim report including findings and recommendations for consideration by the Eighty-Sixth Legislature.

Respectfully submitted,

Senator Charles Perry, Chair

Senator Jose Rodriguez, Vice-Chair

Senator Brandon Creighton

Senator Bob Hall

Senator Juan "Chuy" Hinojosa

Senator Lois Kolkhorst

Senator Borris Miles

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Executive Summary

The Committee on Agriculture, Water, and Rural Affairs Interim Hurricane Harvey report covers a range of flood planning and response issues. The committee under took multiple hearings, research, and meetings which continually confirmed the complexity of the flood response before, during and after Hurricane Harvey. There was confusion regarding jurisdictional authority for operational aspects of flood issues, including debris removal, reservoir release, planning and prevention, to funding responsibilities of governmental entities who have oversight of flooding events. The committee set out to identify the jurisdictional challenges that exist and make recommendations to redefine roles, promote better communication and coordination between the web of jurisdictions, identify potential funding for the prevention and mitigation of flood related issues, and always consider, where possible, water supply development as a solution for floodwater mitigation.

Interim Charge #1

Testimony taken during the flood related hearings indicated that if previously completed plans and studies were implemented, it could have reduced the amount of damage sustained during Hurricane Harvey. Interim Charge #1 required the committee to look at all possibilities for flood mitigation and coordination among the numerous jurisdictions connected to flooding events and identify projects or strategies that would directly address infrastructure and coordination problems. Federal, state and local entities were identified and studied to gain a thorough understanding of the complicated roles each play in flood mitigation.

Additionally, the committee examined the opportunity for another flood control and/or water supply reservoir in and around the Harris County region. A need for additional off-channel storage via diversion ponds or reservoirs was further confirmed from the recent flooding events. Following Hurricane Harvey, there have been funds designated to update plans for another reservoir, or other alternatives as the updated plan may indicate for Harris County.

Finally, and most importantly, the root of many of the damages created by flood events is the lack of coordination on a watershed basis rather than politically created boundaries. Watersheds represent a scientific delineation in the land which defines drainage of water, streams, and rivers. These regions cross county, city, and regional political boundaries. Coordination between watersheds creates a more cohesive plan because it would consider structures, land development, and independent flood mitigation strategies of the various political subdivisions.

Recommendations

- Update the flood models based on watersheds while considering all jurisdictions potentially affected in a flood event.
- Expand the role of an existing agency or create a new oversight process for the Texas Flood Plan by centralizing all local flood prevention plans. This would be like the State Water Plan. Based on the warehousing and updating of topography data in Texas, which is already in the scope and expertise of the Texas Water Development Board, the committee recommends that the Texas Water Development Board is best suited among current state agencies to gather

recommendations and plans created by local entities to develop and oversee implementation of a statewide flood plan.

- The committee recommends reviewing the implementation of Community Development Block Grants - Disaster Recovery through the General Land Office. All efforts should be made to track these funds and promote inter-agency collaboration which will ensure the funds match their objectives and allow accountability from the legislature.
- Coordinate and consolidate duplicative efforts between political subdivisions to develop community-based solutions which are then coordinated within the State Mitigation Disaster plan based on watersheds rather than individual counties or cities.
- Incorporate communities that have participated in the Community Rating System for the National Flood Insurance Program into the planning process for flood control projects in the State Flood Plan.
- Coordinate and consolidate resources from human and financial capital on established watersheds whenever possible.
- The committee recommends clear delineation of the responsibilities of state agencies and river authorities with regard to dredging and debris removal. This is so that local officials and private landowners have direction on who they can contact for assistance in clearing infrastructure such as roads, bridges, and water ways.
- To help promote coordination and an understanding of new flood related policies and procedures that will be put into place, the committee recommends that state and local emergency response teams go through additional continuing education programs during this transition.
- Encourage communities to participate in the Community Rating System (CRS) through funding and education from TDEM and Texas Water Development Board. Whenever possible, these agencies should work closely with communities to facilitate higher ratings. The CRS gives communities points for mitigation projects which allows them to receive less expensive insurance under the National Flood Insurance Program (NFIP). Local ordinances should at a minimum meet the lowest (CRS) rating to receive assistance.
- Conduct a study to accurately map the opportunity for deepening the existing Addicks and Barker Reservoirs, diversion channels, bayous, and the creation of diversion ponds for flood control. All available opportunities for water supply development through Aquifer Storage & Recovery or transport should be explored.

Funding for Flood-Related Disasters

Following Hurricane Harvey, Governor Greg Abbott created the Governor's Commission to Rebuild Texas. The Commission has set out to act as a state coordinator of the rebuilding efforts of infrastructure damaged by the hurricane. Additionally, the Commission identified areas where local representatives needed more assistance such as education on Federal Emergency Management assistance or who to turn to for debris removal.

Interim Charge #1 requests examination on projects, planning, and response, none of which can occur without adequate funding. According to the Texas Water Development Board flood assessment, stakeholders involved in disaster preparedness strongly recommended funding for flood mitigation activities. By creating a system in which major projects are funded, the state can be well ahead of the next flooding event.

The state has managed an influx in state and federal funds throughout the disaster. The Federal Emergency Management Agency has provided a total of $924,824,469 to agencies in the state. The following chart shows the obligated funds from FEMA to the state since October 1, 2007 and which state agencies and programs they have gone to.[1]

State Agency	Program	Obligated Funds
TDEM	Hazard Mitigation Grant Program	$680,532,709
TDEM	Pre-Disaster Mitigation Program	$13,747,016
TWDB	Flood Mitigation Assistance Grant Program	$137,905,753
TWDB	Repetitive Flood Claims Grant Program	$5,370,626
TWDB	Severe Repetitive Loss	$87,268,365
Total		$924,824,469

Table 1: Information Provided by Federal Emergency Management Agency on Sept. 26, 2018; TDEM = Texas Department of Emergency Management; TWDB = Texas Water Development Board

According to the Federal Emergency Management Agency, 891,893 individuals applied for Individual and Housing Program assistance of which 373,528 were approved. The maximum grant of $33,000 was awarded to 5,256 individuals. The average Individual and Housing Program assistance grant was $4,382. The average is based on the average Housing Assistance grant of $7,128 and the average Other Needs Assistance grant which was $1,297. The average National Flood Insurance Program settlement was $114,269.[2]

The Office of the Governor maintains a disaster fund with discretionary authority to spend on recovery efforts throughout the state.[3] The 2018-2019 General Appropriations Act transferred $110 million from the Economic Stabilization Fund.[4] Per a budget rider in the General Appropriations Act, $10 million transferred to Tarleton State for disaster recovery.[5] Since Hurricane Harvey expenditures started in 2017 and are an ongoing effort, there is not a total expenditure report for the use of the disaster fund. However, current total Harvey expenditures total almost $140 million out of the fund.[6] The following chart depicts the disbursement of the Office of the Governor Disaster fund.

[1] Information Provided by the Federal Emergency Management Agency on Sept. 26, 2018.
[2] Information provided by Federal Emergency Management Agency on Sept. 26, 2018.
[3] General Appropriations Act Article 1 Rider 3, http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2018-2019.pdf.
[4] Information provided by the Office of the Governor on October 8, 2018.
[5] General Appropriations Act Article 1 Rider 2, http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2018-2019.pdf.
[6] Information provided by the Office of the Governor on October 8, 2018.

Office of the Governor Hurricane Harvey Disaster Fund Expenditures

Entity	2017	2018-2019	2017-2019
City of Houston		$50,000,000	$50,000,000
Department of Public Safety	$10,000,000	$26,664,935	$36,664,935
General Land Office		$10,000,000	$10,000,000
Military Department (Texas)	$12,863,664	$30,000,000	$42,863,664
Total	$22,863,664	$116,664,395	$139,528,599

Table 2:Information provided by the Office of the Governor

The Texas Water Development Board has provided assistance through the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund which provide low interest loans and loan forgiveness to cities, counties, and water entities such as utilities and districts. To date, the agency has awarded $3.2 million for infrastructure repair projects. An additional $1.5 million is expected to be awarded in November 2018. The average project award is $469,951.[7]

The Texas General Land Office (GLO) is the agency responsible for the Department of Housing and Urban Development's (HUD) Community Development Block Grants for Disaster Recovery. The General Land Office expects to receive $5 billion, some of which will be eligible for flood mitigation strategies. Over the summer of 2018, the GLO sent HUD a list of recommendations for incorporation into their rules to help determine how and where the funds can be spent.

In addition to public funds, the Hurricane Harvey disaster created an unprecedented outpouring of private donations. The Red Cross, the J.J. Watt Foundation, and the Susan and Michael Dell Foundation are among the hundreds of charities that raised money and have contributed to the rebuilding effort. Without this assistance, Texas would not be recovering at the pace we are today.

The vast amount of funding opportunities can create confusion among local communities looking for assistance for recovery and flood mitigation strategies in response to a disaster because they often are unsure what they would be eligible for or what is the best option for their community. Additionally, confusion exists among entities who may not have the expertise in handling large amounts of funds for tasks which have not resided with them previously. The Federal Emergency Management Agency (FEMA), Environmental Protection Agency (EPA), National Flood Insurance Program (NFIP), and Community Rating System (CRS) along with other funding sources are established based on the coordination with local entities. The lack of understanding of flood insurance often leads many residents to believe that homeowner's insurance is flood insurance or, if not required through the home buying process, then not needed.

Recommendations

- The state should task an agency with tracking and reporting all funds which are available for flood mitigation strategies and publicly post findings online. The information should clearly outline how much funding is available and how to acquire the funds. This committee recommends that the

[7] Information provided by Texas Water Development Board on Sept. 24, 2018.

Texas Water Development Board be the agency responsible for this task and incorporate the information collected onto their flood website.

- Agencies should collaborate when receiving funds for which another agency may have expertise. By incorporating all experts, the state will ensure that the local communities receive the maximum benefit from assistance.
- Create a State Infrastructure Fund with an investment from General Revenue (GR) and/or the Economic Stabilization Fund (ESF) to support flood mitigation strategies detailed in the State Flood Plan.
- Work with Texas Department of Insurance, to make sure the consumer is well aware of the flood coverage or lack of flood coverage that they may currently have thru additional disclosure or education requirements.

Flash Flood Episodes

During the course of drafting the report, flash flood events occurred in the state. Junction, Texas faced a wall of water in the early morning hours of October 8, 2018.[8] The South Llano River RV Park & Resort stood in the path of the wave of water and was washed away. Game Wardens with Texas Parks and Wildlife Department (TPWD) and officers with the Department of Public Safety (DPS) rescued residents from trees.[9] According to the Mayor of Junction, Russell Hammonds, "heavy rain collected in nearby canyons and basins and then poured into the river."[10]

On October 16, 2018, the Llano River once again over ran its banks and reached historic levels, cresting at 39.9 feet which is just under the record from 1935 of 41.5 feet.[11] According to the National Weather Service, the flooding was caused by rainfall in the Llano River watershed which inundated streams and flooded the river.[12] Following the flood event, Governor Greg Abbott declared a total of 54 counties a state disaster area and activated all available state resources to assist residents.[13]

While the scope of this report is not specific to flash flood events, there is an opportunity to learn from the response and prevent loss of life and property damage in the future.

Recommendations

- As supported in testimony, the protocols for planned water releases for reservoirs in Texas is dictated by Operations Manuals which were often written at the construction of the reservoir. These protocols must be reviewed to reflect land development, debris levels, and the science of how accumulations and stream flow will affect reservoir and flood gate capacity. New protocol should address a pre-release of water during a flooding event in order to alleviate inundation downstream.

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[8] McGuinness, Dylan. " 9 rescued as major flooding sweeps Junction, wiping out RV park." The San Antonio Express News. October 8, 2018.
[9] *Id.*
[10] *Id.*
[11] Downs, Caleb. " Llano River expected to crest at similar level Wednesday as rescue operations continue." mySanAtonio.com, https://www.mysanantonio.com/news/weather/article/NWS-urges-residents-near-Llano-River-to-evacuate-13310682.php, (accessed October 20, 2018).
[12] *Id.*
[13] *Id.*

- Create more reservoir capacity where possible by heightening walls and removing debris by dredging.
- In collaboration with Texas Soil and Water Conservation Board, the United States Army Corps of Engineers, and local entities, modify the path of flood waters through additional earthen dams.

Interim Charge #2

Through committee hearings and research, the committee examined the jurisdiction and coordination of the Addicks and Barker Reservoirs in West Harris County. While the reservoirs are under control of the United States Army Corps of Engineers, there is room for improvement regarding collaboration between local, state, and federal officials to accurately communicate information related to flood operations on a more proactive basis.

Reservoirs across the state have varying jurisdictions and overlap from federal, state, and local entities. Interim Charge #2 described the need for the public to have access to timely information from reservoir operators. During testimony, witnesses described the collection of information in scientific terms, but not in terms in which members of the public would be able to easily understand or interpret.

Recommendations

- Texas must support local efforts to partner with the federal government to increase capacity and update reservoir operations.
- For reservoirs managed by the state or local authorities, every effort should be made to collect and provide information, such as lake levels and anticipated releases to the public. This should be done in real time, well in advance of a release, and placed on the Texas Water Development Board flood website.
- For federally managed reservoirs, all efforts to collaborate and share lake levels and anticipated release information well in advance of release should be made a priority.

Interim Charge #3

Hurricane Harvey reaffirmed that Texans and the federal government are still united in times of crisis. An influx of residents from Texas and the country wishing to help with rescues and clean up descended on the state to the affected areas. While the outpouring of assistance and cooperation fulfilled the need for a positive narrative, the storm also highlighted the need for increased coordination during a flooding event.

Specifically, a proper warning system is not in place for residents in the path of a reservoir water release or rising floodwaters. Even if a controlled release occurs in the middle of the night, those in the path of the rising water must receive adequate warning. Interim Charge #3 requested the study of current warning systems and the possibility of creating a statewide system to warn of rising flood waters. The committee examined existing systems which exist on a statewide level and the available gage system and efforts to continue to expand it.

Recommendations

- As a continuation from the recommendations in planning, incorporation of local contacts within each community during a flood event should be contained in a State Flood Plan. Flood response plans and processes need to be formalized, utilizing local and specialized expertise.

- Create a system like the AMBER Alert program, or other means of technology must be available for local officials to adequately communicate a flood evacuation with residents.

Conclusion

Nothing could have prepared the State of Texas for the 60-inch rainfall from Hurricane Harvey in such a short amount of time. However, Texas and its residents can better prepare to meet the next flood through statewide flood planning. Coordination amongst all federal, state, and local communities on a watershed basis will go a long way towards mitigating flood damage in both rural and urban areas. Hopefully, with proper coordination, a warning system can notify residents of impending danger to prevent loss of life. Texas should never again be in a position to make the heartbreaking choice of which neighborhood to send floodwaters. Funding remains the most crucial aspect of flood planning. The choices made in the next legislative session will determine if Texas will be ready for the storms to come.

Interim Report: 2017 Hurricane Harvey Response

Hurricane Harvey made landfall just east of Rockport, Texas as a Category 4 hurricane at 3:00 p.m. on August 25, 2017.[14] Less than three hours after Hurricane Harvey made landfall, the hurricane made a second landfall southeast of Refugio County, Texas. While the storm rapidly weakened to a tropical storm, the Hurricane Harvey storm system stalled over Southeast Texas, and late on August 26, 2018 looped back towards the Houston region. According to the United States Geological Survey, "Hurricane Harvey was the most significant tropical rainfall event in United States history" since records began in the 1880s.[15]

Record rainfall was recorded at over 60 inches in some places, while other rain gages overflowed.[16] Rain fell so rapidly that local experts could not obtain an accurate reading of rainfall. The flooding caused river gages in Harris and Galveston counties to record flood stages that had never been seen before. Flood stages are recorded measurements taken at specific points on a river.[17]

Many parts of the state are still recovering from the effects of the catastrophic nature of Hurricane Harvey, and damages are continuing to be assessed by local and state officials. The National Oceanic and Atmospheric Administration (NOAA) estimated that the storm caused 68 deaths and $125 billion in damages. Immediate damages included 300,000-flooded structures and 500,000 flooded cars. There were 40,000 Texans evacuated or sheltered and 30,000 water rescues.[18]

Texas is no stranger to the challenges of floods and the aftermath of storms. There have been approximately 1,179 flood events since 2000, resulting in 1,175 deaths, over $800 million in damage, and $458 million in damage to crops, none of which includes hurricane flooding or flash flood events in Texas.[19] The United States Geological Survey (USGS) also tracks flooding events in Texas, including those related to hurricane and tropical storm flooding. From 1913 through 2002, there were over 200 major flooding events with $66 billion in damages, an average maximum precipitation of 22.48 inches, and 882 lives lost. The overwhelming narrative associated with the floods contained in the 2003 USGS Report indicated lack of warning or communication as key to moving populations out of harm's way. Additionally, infrastructure projects in need of repair or not yet constructed contributed to property damage and loss of life.[20]

Many of the flooding events throughout the last five years have been classified as 100-year floods according to available information. A 100 or 500-year flood refers to historical information based on rainfall totals, stream gages, or reservoir levels. To calculate the occurrence of such a weather event, hydrologists use at least 10 years or more of information. A 100-year flood refers to a 1 in 100 or 1% chance that a stream flow or rainfall event will happen in a given year and a 500-year flood refers to a 1

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[14] National Hurricane Center Tropical Cyclone Report, "Hurricane Harvey"(May 9, 2018), https://www.nhc.noaa.gov/data/tcr/AL092017_Harvey.pdf, (last visited Aug. 24, 2018).
[15] *Id.*
[16] *Id.*
[17] *Id.*
[18] *Id.*
[19] The National Oceanic and Atmospheric Administrations, *Storm Events Database*, *https://www.ncdc.noaa.gov/stormevents/listevents.jsp?eventType=%28C%29+Flash+Flood&beginDate_mm=05&beginDate_dd=01&beginDate_yyyy=2005&endDate_mm=05&endDate_dd=31&endDate_yyyy=2006&county=ALL&hailfilter=0.00&tornfilter=0&windfilter=000&sort=DT&submitbutton=Search&statefips=48%2CTEXAS* (last visited Aug. 24, 2018).
[20] The United States Geological Survey, *Major and Catastrophic Storms in Texas (2003)*, *https://pubs.usgs.gov/of/2003/ofr03-193/cd_files/USGS_Storms/date.htm* (last visited Aug. 24, 2018).

in 500 or .002% chance this will happen. Streamflow is measured based on the annual peak flow, while rainfall is based on both duration and the amount of precipitation.[21]

Recently, the National Oceanic Atmospheric Administration released updated rainfall amount frequencies for Texas. The updated amounts increase the 100-year flood value by several inches. For example, Houston went from a thirteen-inch rainfall total for a 100-year flood to an eighteen-inch rainfall today for a 100-year flood. The new values will replace old data which was over 40 years old and assist local officials in their assessment of local rainfall totals.[22]

Years prior to Hurricane Harvey, Texas experienced severe flooding events from March 2015 through early 2016 in central Texas and Houston. From April 16, 2015 through April 19, 2015, 65 homes flooded in Houston, cars stalled downtown due to flooded engines, and thousands of people lost power in Houston, which led to a 500,000-gallon sewage spill in the city.[23] Heavy rainfall traveled 350 miles, spreading from as far as Houston to Abilene, flooding homes and streets.[24] In May 2015, record rainfall again occurred throughout Texas. Property damage and loss of life occurred during the Memorial Day flooding event which devastated portions of the state.[25] See the chart below for rainfall in various cities across Texas in 2015.

Notable May 2015 Rainfall Totals

Location	Rainfall Total
Amarillo	9.29 inches
Austin	17.59 inches
Brownsville	9.72 inches
Childress	13.21 inches
Corpus Christi	14.32 inches
Dallas-Fort Worth	16.96 inches
Dallas	14.98 inches
Del Rio	10.17 inches
Houston	14.17 inches
Lubbock	12.12 inches
San Angelo	9.12 inches
Wichita Falls	13.33 inches

Figure 1: The Weather Channel, " Texas and Oklahoma Set All-Time Record Wet Month; Other May Rain Records Shattered in Arkansas, Nebraska" (June 1, 2015), https://weather.com/forecast/regional/news/plains-rain-flood-threat-wettest-may-ranking (last visited Aug. 24, 2018).

[21] The United States Geological Survey, *Floods: Recurrence intervals and 100-year floods (USGS),* https://water.usgs.gov/edu/100yearflood.html (last visited Sept. 17, 2018).

[22] National Oceanic Atmospheric Administration, "NOAA Updates Texas Rainfall Frequency Totals," September 27, 2017.

[23] The Weather Channel, " Heavy Rain Floods Houston Homes, Power Outage Causes Massive Sewage Spill" (April 19, 2015), https://weather.com/news/news/flash-flooding-heavy-rain-north-west-texas-alabama-gulf-coast (last visited Aug. 24, 2018).

[24] *Id.*

[25] The Weather Channel, " Texas and Oklahoma Set All-Time Record Wet Month; Other May Rain Records Shattered in Arkansas, Nebraska" (June 1, 2015), https://weather.com/forecast/regional/news/plains-rain-flood-threat-wettest-may-ranking (last visited Aug. 24, 2018).

Flooding is a disaster that can strike anywhere and at any time. While Southeast Texas often bears the greatest impact as it relates to flooding and damage, flooding is by no means isolated to Southeast Texas. Most recently, Governor Greg Abbott issued a proclamation on September 28, 2018 declaring a disaster because of severe weather and flooding in three counties in Texas.[26] Specifically, Sutton County had approximately 250 homes destroyed or had water damage.[27] Tarrant and Ellis counties also experienced great property and infrastructure losses. All three of these counties are far from the coastline of Texas and serve as an example that flooding does occurs all around the state in both urban and rural areas.

Immediately following the catastrophic flooding after the landfall of Hurricane Harvey, Lieutenant Governor Dan Patrick issued a series of interim charges that addressed concerns and problems created by Hurricane Harvey. The Senate Committee on Agriculture, Water, and Rural Affairs received three charges that looked at the overall statewide infrastructure as it relates to flood control.

A summary of the interim charges is below:

> (1) Study and make recommendations on how to move forward with flood projects including a third reservoir in the Houston metro area; and jurisdiction and coordination between state and federal agencies;
>
> (2) Study and identify ways to improve capacity and maintain the Addicks and Barker Reservoirs in Harris County; and
>
> (3) Evaluate data-sharing and utility of early warning systems for the public and local officials to utilize leading up and during a major flood event.

This report will provide an overview of the current jurisdictional structures of different entities as it relates to responding to and planning for floods. Furthermore, this report will look at how to fund flood mitigation projects and provide solutions to meet the challenges to create and maintain a state flood plan for Texas.

The committee held two hearings to address the interim charges. These hearings were held in the flood-affected areas so the committee could gain first-hand knowledge of the devastation experienced. The first hearing was held in New Caney, Texas on October 16, 2017 to discuss the capacity and structure of the Addicks and Barker reservoirs and the effectiveness of the flood warning system. Testimony included first person accounts of flood operations during the storm. The committee heard from local officials who described best practices and issues the state needs to address when providing vital information during a flood.

The committee held its second hearing on January 29, 2018 in Wharton, Texas. This city was hit hard by severe flooding during Hurricane Harvey in 2017 and during other flood events in the past few years. The committee received updates on the status of projects in the area and recommendations for future improvements. Testimony also included jurisdiction information for those entities involved with flood

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[26] The Office of the Governor, *"Governor Greg Abbott Issues Disaster Declaration in Response to Severe Weather and Flooding in North Texas,"* (2018), https://gov.texas.gov/news/post/governor-greg-abbott-issues-disaster-declaration-in-response-to-severe-weather-and-flooding-in-north-texas.

[27] San Angelo Live, *"Reality Sets in for Sonora Residents Who Lost Homes in Flood"*, https://sanangelolive.com/news/business/2018-09-27/reality-sets-sonora-residents-who-lost-homes-flood (Last visited Oct. 8, 2018).

control and post-disaster recovery. Local officials described their experiences working with federal and state agencies involved in flood response and planning.

The scope of entities involved in flood control planning and response is vast and confusing to many local officials and the public. Often, local officials have described that they do not have a central entity to go to for information on funding or assistance for flood control projects. A recurring theme is that the state is facing an infrastructure crisis due to the lack of funding for projects, which would prevent the loss of life and property damage. As the state's population grows, critical flood control planning and water infrastructure is needed. Finally, data-sharing and warning systems are behind in preparing Texans for the next disaster

Following the hearings, the committee continued to focus on the three flood-related interim charges and the response from those who testified at the hearings. Follow up meetings were held with federal, state, and local officials to gather more detailed information that will be laid out in this report. Additionally, Chairman Perry spent time in Washington, D.C. meeting with representatives from the Environment Protection Agency, the Federal Emergency Management Agency, the U.S. Army Corps of Engineers, and members representing watershed groups.

The three charges addressed in this report include information from the hearings, committee findings, and recommendations.

Interim Charge #1:

Study and make recommendations on how to move forward with water infrastructure projects in a State Water Plan that will help mitigate floods through flood control, diversion, and storage projects. Evaluate plans for a possible third reservoir in addition to Addicks and Barker to control and alleviate additional flooding in the region. Additionally, review the current status of reservoir projects in Texas. Examine opportunities for coordination between federal and state agencies to develop flood mitigation infrastructure, and the ongoing maintenance and restoration of critical dam infrastructure.

Committee Hearing Information

The committee held a public hearing on January 29, 2018 in Wharton, Texas to hear invited and public testimony to discuss Interim Charge #1 pertaining to flood mitigation issues facing the state. The committee chose Wharton County because this rural county faces a slow recovery from Hurricane Harvey because of massive flood damages and displacement of its residents. The committee invited local entities, officials, and the public to discuss flood projects which would benefit areas impacted by Hurricane Harvey.

The hearing included invited testimony from the following persons:

- Tim Barker, Mayor of the City of Wharton
- William Benton, Mayor of the City of Rosenberg
- Ty Prause, Colorado County Judge
- Nate McDonald, Matagorda County Judge
- Bryan Shaw, Chairman of the Texas Commission on Environmental Quality
- John Barton, Associate Vice Chancellor with Texas A&M University, Governor's Commission to Rebuild Texas
- Monty Dozier, Associate Professor and Extension Special Assistant with Texas A&M AgriLife Extension
- Coleman Locke, Chairman of the Animal Health Commission
- John Foster, Programs Officer with the Texas State Soil & Water Conservation Board
- Augustus "Auggie" Campbell, President West Houston Association
- Tim Buscha, President of the American Council of Engineering Companies of Houston

Jurisdictional Background of Federal, State and Local Entities

Various federal, state, and local entities have jurisdiction over flood control, disaster events, and recovery. As such, there is often confusion where the jurisdiction of one entity ends and where another one begins in relation to flood related activities. Coordination among all partners is critical to response, recovery, and future planning. In response to the confusion, the committee researched many of the entities that have flood jurisdiction in Texas to clearly delineate for all stakeholders. Without a clear delineation of jurisdictional boundaries, it would be difficult to understand and make recommendations regarding flood control, storage, diversion, or any future planning and coordination.

Office of the Governor

The Office of the Governor (OOG) provides several services during flooding events in the state. The executive office is responsible for issuing disaster declarations on the state level and providing guidance for Federal Disaster Declarations. The state disaster declaration is disseminated in a way that brings

immediate attention to the public and opens various resources that can be made available.[28] By making a declaration, the Governor sets the disaster response in motion by activating the emergency management plan, which coincides with the type of disaster. This sets in motion the deployment of food and water supplies and needed equipment and manpower. It also establishes the governor as "the commander in chief of state agencies, boards, and commissions having emergency responsibilities."[29]

Additionally, the Legislature has appropriated funds to the OOG for use for certain emergencies and disasters. In the 2018-2019 General Appropriations Act, $110 million was appropriated for disaster spending.[30] The appropriation included a $100 million transfer from the Economic Stabilization Fund.[31] The Governor can disperse the emergency appropriations contained within the OOG or, in coordination with the Comptroller's office, expend other funds.[32] Emergency funds are critical in the aftermath of a disaster to draw down federal dollars or provide immediate assistance to Texas residents.[33]

On September 7, 2017, following the events of Hurricane Harvey, Governor Abbott created The Governor's Commission to Rebuild Texas (the Commission). Texas A&M University System's Chancellor, John Sharp, was tasked with leading the Commission to rebuild infrastructure in affected communities.[34] Chancellor Sharp created a structure with a goal to work directly with local officials through information sharing, coordination, and technical assistance.[35]

Texas Department of Emergency Management

The Texas Department of Emergency Management (TDEM) was created through the Texas Disaster Act of 1975 and received its current name in 2009. It operates as a division of the Department of Public Safety (DPS). TDEM is responsible for an emergency management program for Texas and steps in when emergencies strike the state with funding, resources, and manpower. The department also assists local entities creating their own plans when dealing with emergencies.[36]

Besides serving as an integral part of emergency management during a disaster, TDEM provides outreach, training, and planning services to the state and local entities. Field response personnel are located throughout the state to grow relationships and plan with local officials while also readily available when disaster strikes.[37]

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[28] Tex. Gov. Code § 418.014 (2007), https://statutes.capitol.texas.gov/Docs/GV/htm/GV.418.htm#418.011.
[29] Tex. Gov. Code § 418.015 (2017), https://statutes.capitol.texas.gov/Docs/GV/htm/GV.418.htm#418.011.
[30] General Appropriations Act, 85th Leg., R.S., Article I, 2017.
[31] *Id.*
[32] Tex. Gov. Code § 401.063 (2017), https://statutes.capitol.texas.gov/Docs/GV/htm/GV.401.htm#401.063.
[33] Tex. Gov. Code § 418.021 (2017), https://statutes.capitol.texas.gov/Docs/GV/htm/GV.418.htm#418.021.
[34] Rebuild Texas, "Rebuilding Texas after Hurricane Harvey Operational Plan," https://www.rebuildtexas.today/plan/ (last visited Sept. 18, 2018).
[35] *Id.*
[36] Texas Department of Emergency Management, *TDEM Mission, Organization, & Responsibilities* (2018), https://www.dps.texas.gov/dem/mission.htm (last visited Aug. 8, 2018).
[37] Texas Department of Emergency Management, *Field Response Section* (2018), https://www.dps.texas.gov/dem/FieldResponse/index.htm (last visited Aug. 8, 2018).

TDEM facilitates and drafts the State Hazard Mitigation Plan (SHMP) and their mitigation staff administers the Pre-Disaster Mitigation Grant Program. The grant program serves all categories of disasters, including flooding assistances, to cities, counties, and other government entities.[38]

The SHMP is submitted to FEMA, which permits Texas to receive federal funding for mitigation efforts. The plan is drafted by the Mitigation Section at TDEM and utilizes a standing committee called the State Hazard Mitigation Team (SHMT). This committee includes partnerships with agencies, commissions, universities and other entities. The SHMP is updated every to five years. The organization and planning of the SHMP is centered around the State Hazard Mitigation Officer (SHMO).[39]

2013 State Hazard Mitigation Plan Team

State Hazard Mitigation Team	Technical Sub-Committee
Texas Division of Emergency Management*	Texas A&M University*
Texas A&M Forest Service*	Texas Floodplain Management Association
Texas Commission on Environmental Quality*	Texas Geographic Society*
Texas Department of Insurance*	Texas Tech University System*
Texas Department of Transportation*	University of North Texas*
Texas General Land Office*	University of Texas*
Texas Parks and Wildlife Department	**Local Government**
Texas Water Development Board*	Emergency Management Association of Texas
Railroad Commission of Texas	

Table 3: Reprinted from *Texas Department of Emergency Management, "State of Texas Hazard Mitigation Plan," 2013 Update.*
*denoted members that actively participated in the 2013 mitigation planning process.

In addition to the official planning committee, TDEM receives information from stakeholders, other agencies, and technical experts while drafting the plan. The 2013 SHMP ranks flood as the number one hazard in the state and the most frequently occurring disaster in the state, causing over 90% of damage related to disasters. TDEM reiterates there are few areas of the state that would never experience a flood episode.[40]

The 2013 SHMP predicted that Texas would continue to see a high occurrence of flood events throughout the next planning period which will end this year.[41]

Texas General Land Office

When originally established, the General Land Office's (GLO) main function was to maintain and administer land titles.[42] Since the 1800s, the agency has taken on different roles including creating the Community Development and Revitalization Division. Since 2011, the agency has been designated by the Governor to administer Community Development Block Grants - Disaster Recovery (CDBG-DR) to local governments and entities. These grants can be used for housing and infrastructure projects including

[38] Texas Department of Public Safety, *Mitigation* (2000-2018), https://www.dps.texas.gov/dem/Mitigation/index.htm (last visited Aug. 13, 2018).
[39] Texas Department of Emergency Management, "State of Texas Hazard Mitigation Plan" (2013).
[40] Texas Department of Emergency Management, "State of Texas Hazard Mitigation Plan," (2013).
[41] *Id.*
[42] Tex. Nat. Rec. Code § 31.011 (2017), https://statutes.capitol.texas.gov/Docs/NR/htm/NR.31.htm#31.051.

rebuilding homes or flood control projects such as clearing and dredging drainage ditches. The GLO estimates that the timeline for the funding process can take up to 32 months.[43]

Texas experienced flooding disasters in 2015 and 2016 which resulted in a total of $313.5 million in CDBG-DR funds administered by the GLO to 129 eligible counties. September 27, 2018 was the deadline for these communities to submit completed project applications to receive funding for the 2016 disasters.[44]

GLO CDBG-DR Funds as of August 2018

Year	Amounts Drawn for Disbursement
2015	$ 539,479
2016	$ 331,296

Table 4-Information based on communication with GLO staff.

In February 2018, the U.S. Department of Housing and Urban Development (HUD) allocated $5.024 billion in CDBG-DR funds.[45] Under the GLO State Action Plan, the agency allocated just over $413 million for local infrastructure and encouraged them to focus on "prioritization of infrastructure for direct repair of damaged facilities, FEMA cost share and mitigation, and water and flood control facilities due to the limitations of funds available in this allocation."[46] The plan also includes $137,685,446 for local, regional, and state planning to include studies related to flood planning. The agency has invited universities, local entities, and the public to provide input.[47]

Texas Water Development Board

The Texas Water Development Board (TWDB) is the agency responsible for the development and coordination of the Statewide Water Plan and various financial assistance programs, including the State Water Implementation Fund for Texas (SWIFT). This program was created for Statewide Water Plan project funding.[48] TWDB is also the designated agency responsible for the National Flood Insurance Program (NFIP), which is a federal program where assistance is provided if the community adopts federal building standards in a flood zone. If a community adheres to the specific standards, the federal government provides flood insurance.[49] According to the FEMA Community Status Book Report, Texas has 1,250 communities participating in the flood program.[50]

TWDB has funding mechanisms that are available for various water planning and projects. The Clean Water State Revolving Fund (CWSRF) Loan Program is available for "planning, acquisition, design, and

[43] Texas General Land Office, *Community Development & Revitalization* (2017), http://www.glo.texas.gov/recovery/about/about-cdr/index.html (last visited Aug. 8, 2018).
[44] Texas General Land Office, *Floods* (2017), http://www.glo.texas.gov/recovery/disasters/floods/index.html (last visited Aug. 8, 2018).
[45] Texas General Land Office, *State of Texas Plan for Disaster Recovery: hurricane Harvey Round 1* (June 25, 2018).
[46] *Id.*
[47] *Id.*
[48] Tex. Water Code §6.012 (2017), https://statutes.capitol.texas.gov/Docs/WA/htm/WA.6.htm#6.012.
[49] Texas Water Development Board, *National Flood Insurance Program (NFIP)*, http://www.twdb.texas.gov/flood/insurance/index.asp (last visited Aug. 9, 2018).
[50] Federal Emergency Management Agency, *Community Status Book Report* (July 27, 2018), https://www.fema.gov/cis/TX.html, (last visited Aug. 14, 2018).

construction of wastewater, reuse, and storm water infrastructure."[51] Specifically, storm water mitigation planning assists communities by adequately preparing these communities for storms that bring exponential amounts of rain.[52] The CWSRF program also funds an immediate disaster recovery response when communities experience flood damage to their drinking water system and supply.[53] The Texas Water Development Fund (DFund) is a loan program that provides funding for water supply, wastewater, and flood control projects through state funding. The types of flood control projects include construction of storm water retention basins, enlargement of stream channels, modification or reconstruction of bridges, acquisition of floodplain land for use in public open space, relocation of residents of buildings removed from a floodplain, public beach re-nourishment, flood warning systems, control of coastal erosion, and development of flood management plans.[54]

Since 1984, TWDB has committed approximately $217 million in state funds for flood protection grants and nearly $238 million for flood-related projects through other state and federal financial assistance programs. Also, since 1999, TWDB has administered over $259 million in federal grants for flood planning and projects through the FEMA Flood Mitigation Assistance and Severe Repetitive Loss programs.[55]

The Texas Floodplain Management Association (TFMA) is a non-profit organization that was created in 1988 and is made up of 2,800 individuals involved in flood planning and management, the NFIP, and disaster recovery. TWDB and TFMA work together to administer the flood plain manager training for individuals in communities so those communities can be eligible to receive NFIP funds.[56]

Most recently, the TWDB completed the State Flood Assessment which was funded during the 85th Legislative Session through Rider 28 in the General Appropriations Act, directing the Board to conduct a flood assessment of the state.[57] The assessment consisted of the collection of stakeholder input over 12 watershed based regions.[58] Those participating in stakeholder workshops and survey respondents were made up of city and county officials, state agencies, river authorities, businesses, floodplain managers, watershed representatives, coastal associations, emergency operations officials, land developers, property rights organizations, engineers, and the public.[59] The three areas which were described as most important to stakeholders were: state assistance for mitigation including policy considerations, technical

[51] Texas Water Development Board, *Clean Water State Revolving Fund (CWSRF) Loan Program,* http://www.twdb.texas.gov/financial/programs/CWSRF/index.asp (last visited Aug. 9, 2018).
[52] *Id.*
[53] Texas Water Development Board, *Disaster Recovery Response Emergency Relief and Urgent Need Funding Clean and Drinking Water State Revolving Funds* (Oct. 2017), http://www.twdb.texas.gov/publications/shells/Disaster_Recovery_Response.pdf?d=102126.600000076 (last visited Aug. 9, 2018).
[54] Texas Water Development Board, *Texas Water Development Fund (DFund),* http://www.twdb.texas.gov/financial/programs/TWDF/index.asp (last visited Aug. 9, 2018).
[55] Information provided by Texas Water Development Board (Sept. 19, 2018).
[56] Information provided by Texas Floodplain Management Association (July 20, 2018).
[57] General Appropriations Act Article VII, Rider 28, http://www.lbb.state.tx.us/Documents/GAA/General_Appropriations_Act_2018-2019.pdf (last visited Sept. 18, 2018).
[58] Texas Water Development Board, *State Flood Assessment, Report to the 86th Legislature,* (2018).
[59] Information provided by Texas Water Development Board (Sept. 10, 2018).

help, and data collection; mapping that is up to date and more wide spread; and coordinated, localized flood planning.[60]

Texas Commission on Environmental Quality

The Texas Commission on Environmental Quality (TCEQ) has responsibility over water rights and quality, feasibility of federal projects in particular reservoirs, dam construction and maintenance, water wells, and various other environmental related activities including waste disposal and air quality.[61] While there is not a funding mechanism with the TCEQ for floods specifically, the agency works closely with their federal partners to provide disaster relief.[62] The TCEQ dispatches personnel and mobilizes field personnel during and immediately following a flood event to conduct outreach, inspect drinking water and waste water facilities, track Boil Water Notices, which are sent to the public when drinking water is unsafe, identify issues with dams and provide guidance for repairs, and coordinate debris removal and costs. Technical staff are available for all flood related activities conducted by the agency and often work on site following flood events[63]

According to Texas Water Code Section 11.097, the TCEQ is authorized to remove debris from navigable waterways.[64] The agency inspects waterways based on observing conditions of the waterways or through specific requests. Coordination occurs when there is overlap between jurisdictions, such as when the debris is obstructing a bridge. In cases like this, TCEQ may coordinate with Texas Department of Transportation (TxDOT). But even when coordination occurs, there is often confusion about funding responsibility, as is the case if TxDOT seeks reimbursement from the Federal Highway Administration and other federal transportation partners.[65]

Additionally, TCEQ regulates surface water, water treatment plants, and wells and incorporates flood related planning into the oversight by including requirements and plans submitted to the agency during the permitting process. The plans include engineering plans which TCEQ reviews for compliance.[66]

Texas Department of Transportation

While the major role of the Texas Department of Transportation (TxDOT) covers roads and the movement of vehicles throughout the state,[67] the agency also plays a role in flood control through public information, evacuation, and hazard mitigation.[68] During hurricanes, TxDOT is tasked with the flow of traffic after an

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[60] Id.
[61] Texas Water Code § 5.013 (2017), https://statutes.capitol.texas.gov/Docs/WA/htm/WA.5.htm#5.013.
[62] Information provided by Texas Commission on Environmental Quality (July 31, 2018).
[63] Id.
[64] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, Testimony: Bryan Shaw, TCEQ (Jan. 29, 2018).
[65] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, Testimony: Bryan Shaw, TCEQ (Jan. 29, 2018).
[66] Information provided by Texas Commission on Environmental Quality (July 31, 2018).
[67] Tex. Transportation Code §201.601, (2009), https://statutes.capitol.texas.gov/Docs/TN/htm/TN.201.htm#201.201 (last visited Sept. 18, 2018).
[68] Tex. Transportation Code §201.611, (1997) https://statutes.capitol.texas.gov/Docs/TN/htm/TN.201.htm (last visited Sept. 18, 2018).

evacuation order and upon re-entry to the disaster area. The agency also clears roads for emergency response operations.[69]

Following Hurricane Harvey, 4,968 TxDOT employees logged over 1 million labor hours to provide 24-hour, seven day a week support.[70] This support includes high water rescue support, traffic signal and sign repair, debris cleanup, installation of water-filled barriers, bridge or roadway inspections and repair, equipment resources for local entities, and roadway updates. TxDOT has three funding sources to help cover the costs associated with disaster response. These sources include TxDOT covering the cost with existing funds, TxDOT working with the designated federal agency for federal disaster declaration funds, or the Federal Highway Administration providing funds during state declared disasters.[71]

County and Local Flood Control Districts

County and local water control districts were created to regulate water and storm water in counties and municipalities. TCEQ board members receive and thoroughly review applications that seek to create water related districts. The board members also regulate the issuance of bonds by the water districts and ensure they adhere to state laws.[72] According to TCEQ, there are currently 1,769 active water districts in Texas.[73]

Special purpose districts are often created when a problem has been identified and a community seeks a solution. For example, the Harris County Flood Control District (HCFCD) was created following a series of floods in 1929 and 1935. The district has evolved from the designated entity in the region that partners with the U.S. Army Corps of Engineers (USACE) to one with public and private company partnerships.[74] HCFCD manages 2,500 miles of channels, 130 retention basins, and conducts flood mitigation studies, develops projects, and contracts for construction.[75]

Special purpose districts like HCFCD provide emergency response and flood mitigation tools to local governments. The HCFCD held a bond election on August 25, 2018 for $2.5 billion to finance flood mitigation projects in Harris County. The district plans to participate in several projects over multiple years and keep the public updated on their progress via the HCFCD website.[76]

River Authorities

Texas river authorities are a category of a special purpose districts and 17 river authorities exist in the state. Under Texas' Special District Local Laws Code and Title 30 of the Texas Administrative Code, river authorities are given specific responsibilities and duties related to water quality monitoring, flood control, and the establishment of governing bodies for planning purposes.[77]

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[69] Texas Department of Transportation, *Emergency Operations*, 2017 Educational Series, http://ftp.dot.state.tx.us/pub/txdot-info/sla/education_series/emergency-ops.pdf (last visited July 23, 2018).
[70] Texas Department of Transportation, Hearing Testimony House Committee on Transportation (Feb. 7, 2018).
[71] *Id.*
[72] Texas Commission on Environmental Quality, *Water Districts* (2018), https://www.tceq.texas.gov/waterdistricts. (last visited Aug. 9, 2018).
[73] Information provided by TCEQ on August 10, 2018.
[74] Harris County Flood Control District, *History of the District* (2018), https://www.hcfcd.org/about/history-of-the-district/ (last visited Aug. 9, 2018).
[75] Information provided by Harris County Flood Control District staff, Meeting on July 25, 2018.
[76] Harris County Flood Control District, "2018 HCFCD Bond Program", https://www.hcfcd.org/2018-bond-program/ (last visited Sept. 18, 2018).
[77] Texas Admin. Code, Title 30, Part 1, Chapter 220 (A) Rule §22.4.

River Authorities of Texas

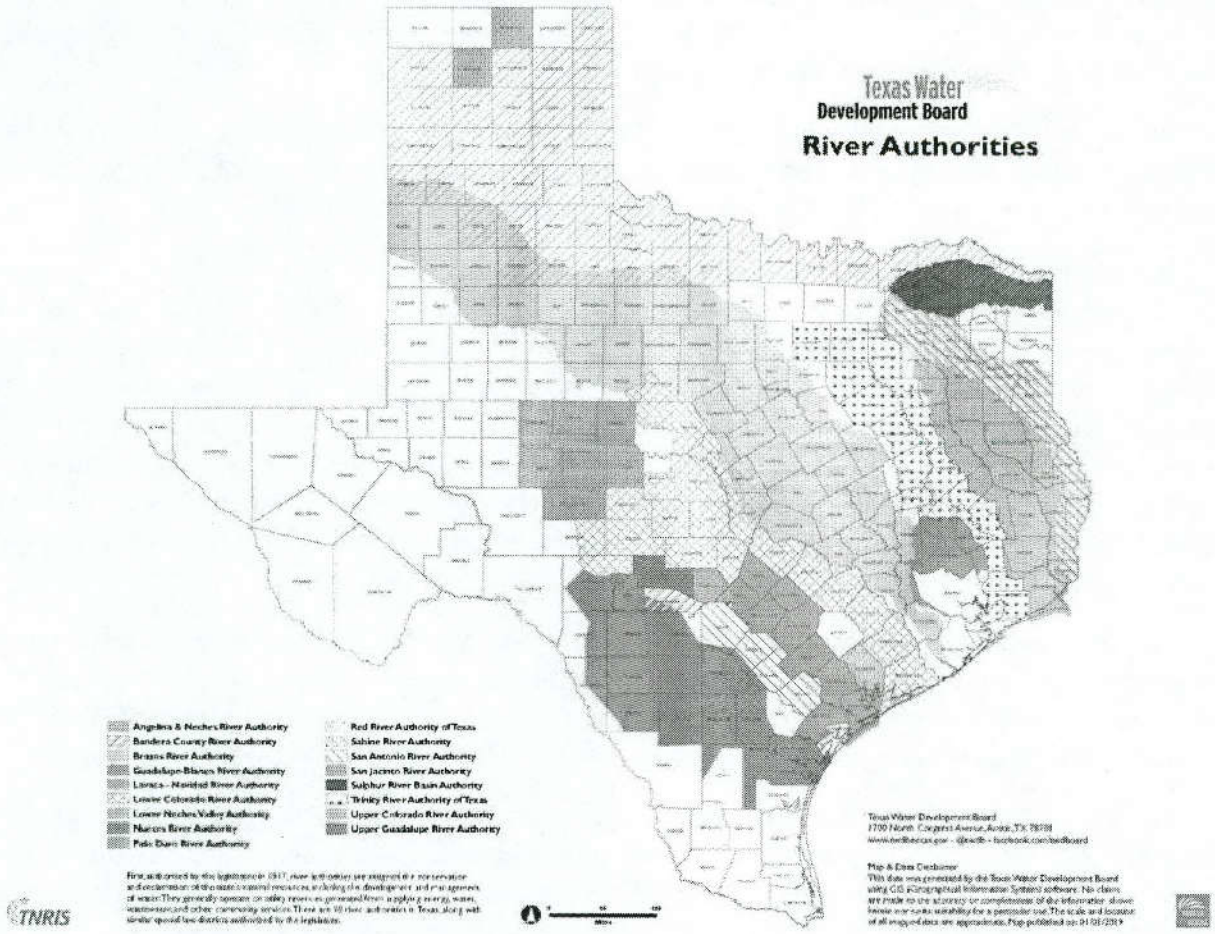

Figure 2: Map Provided by Texas Water Development Board.

United States Geological Survey

The United States Geological Survey (USGS) was created in 1879 to continue mapping the country as population expanded.[78] The agency has kept its original purpose to "classify the public lands, and examine the geologic structure, mineral resources, and products of the national domain."[79] They fulfill their purpose by utilizing new mapping technology that helps produce maps that are more accurate and monitoring of natural hazards. One such use of new technology includes their satellites that continually monitors the planet, volcanos, and landslides. USGS also looks to increase public awareness of earthquakes, water, land, and energy resources.[80]

Some of the state's needs are served by the USGS Texas Water Science Center which partners with "100 municipalities, river authorities, groundwater districts, and state and federal agencies in the state" to

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[78] United States Geological Survey, *Establishment of the U.S. Geological Survey* (2018), https://pubs.usgs.gov/circ/c1050/establish.htm (last visited Aug. 9, 2018).
[79] United States Geological Survey, *Into the Second Century* (2018), https://pubs.usgs.gov/circ/c1050/century.htm. (last visited Aug. 9, 2018).
[80] *Id.*

share scientific data to prevent property damage and loss of life due to flood events.[81] There are eight water centric field offices located throughout the state.[82] In addition to standard operating costs, which cover most flood events, in 2017 and 2018 the USGS Texas Water Science Center received $1.4 million from FEMA and $170,000 from USGS for flood related projects.[83]

The majority of the agency's presence in Texas is through their partnership with state and local entities to deploy a network of river and stream gages throughout waterways. There are 73 program operators currently contracted with the USGS for gage data (see Appendix A for full listing).[84]

United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) was created in the late 1700s to assist with engineering related to wartime efforts and has grown to "deliver vital public and military engineering services" in order to grow the economy and protect the country from natural disasters.[85] The Southwestern Division (SWD) of the USACE was created in 1937 following flood events that caused wide spread damage throughout the southwest.[86] Within the division, the SWD Regional Water Center (SWD RCC) was created to provide water control of dams and reservoirs during periods of drought and flood under the jurisdiction of the USACE. The SWD RCC consists of representatives from the Fort Worth, Little Rock, Galveston, and Tulsa Districts with expertise in hydrology and engineering.[87]

The USACE is responsible for the funding, construction, operation, and maintenance of certain water projects which they have constructed in the state including reservoirs (see Appendix B for all Texas reservoirs).[88] The SWD Dam Safety Program within the SWD's Flood Risk Management provides oversight for multi-purpose dams with inspections and oversight to identify integrity risks.[89]

In 2017, the SWD USACE estimated that the total cost for flood control activities in Texas was $144 million. Approximately $31 million of that amount is for engineering design and construction. The remainder is used for operations and maintenance of the USACE lakes and reservoirs. Additional funding is in the Bipartisan Budget Act of 2018. The Act contains just over $5 billion appropriated for Texas.[90]

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[81] USGS Texas Water Science Center, "Texas Water Science Center Offices and Contacts" (July 18, 2018). United States Geological Survey (July 2018).
[82] *Id.*
[83] Information provided by USGS Texas Water Science Center (July 25, 2018).
[84] *Id.*
[85] US Army Corps of Engineers, *Mission & Vision*, https://www.usace.army.mil/About/Mission-and-Vision/ (last visited Aug. 9, 2018).
[86] US Army Corps of Engineers Southwestern Division, *The Origins of SWD*, https://www.swd.usace.army.mil/About/History/ (last visited Aug. 9, 2018).
[87] US Army Corps of Engineers Southwestern Division, *SWD Regional Water Center*, https://www.swd.usace.army.mil/Missions/Civil-Works/Flood-Risk-Management/Regional-Water-Center/ (last visited Aug. 9, 2018).
[88] Information provided by USACE (Aug. 6, 2018).
[89] US Army Corps of Engineers Southwestern Division, *Flood Risk Management*, https://www.swd.usace.army.mil/Missions/Civil-Works/Flood-Risk-Management/ (last visited Aug. 9, 2018).
[90] Office of the Governor, *U.S. Army Corps Of Engineers Announces Nearly $5 Billion For Disaster Recovery Projects In Texas* (Press Release) (April 10, 2018), https://gov.texas.gov/news/post/u.s.-army-corps-of-engineers-announces-nearly-5-billion-for-disaster-recovery-projects-in-texas.

Bipartisan Budget Act of 2018

Texas Long Term Recovery Investment Plan - Studies

Study Name	Cost in Millions
Brazos River in Fort Bend County	$3.0
Buffalo Bayou and Tributaries Resiliency	$6.0
Coastal Texas Protection and Restoration	$1.9
Houston Regional Watershed Assessment	$3.0
Guadalupe and San Antonio River Basins	$2.0
TOTAL	**$15.9**

Table 5: Information provided by the USACE.

The Act lists five studies for Texas. The Corps will also deliver ten construction projects totaling $4.8 billion. These construction projects may include dredging, bayou expansion, or detention ponds needed for flood prone regions.

Bipartisan Budget Act of 2018

Texas Long Term Recovery Investment Plan - Construction

Project Name	Cost in Millions
Brays Bayou	$75.0
Buffalo Bayou and Tributaries	$1.5
Clear Creek	$295.0
Dallas Floodway Extension	$53.0
Dallas Floodway	$223.0
Hunting Bayou	$65.0
Lewisville Dam	$92.0
Lower Colorado River Phase 1 (Wharton)	$73.3
Sabine Pass to Galveston Bay	$3,957.1
White Oak Bayou	$45.0
TOTAL	**$4,879.9**

Table 6: Information provided the USACE.

United States Bureau of Reclamation

The United States Bureau of Reclamation (USBR) was created in 1902 to develop and manage water projects in the 17 western states. The agency provides water to more than 31 million people and 140,000 farmers for irrigation of 10 million acres of farmland.[91]

[91] United States Bureau of Reclamation, *About Us - Mission/Vision* (March 29, 2017), https://www.usbr.gov/main/about/mission.html (last visited Aug. 9, 2018).

United States Bureau of Reclamation Projects in Texas

Project Name	Operator	Location	Completion Date
Balmorhea Project	Reeves County Water Improvement District No.1	Balmorhea	1938
Canadian River Project	Canadian River Municipal Water Authority	Sanford	1968
Lower Rio Grande Rehabilitation Project	Hidalgo & Cameron Counties Water Control and Improvement District No. 9 and La Feria Irrigation District Cameron County. No 3	Hidalgo and Cameron Counties	1968
Nueces River Project	Nueces River Authority	Uvalde	1984
San Angelo Project	Tom Green County Water Control and Improvement District No 1 and San Angelo City Manager	San Angelo	1936
Choke Canyon Dam	City of Corpus Christi	Corpus Christi	1982
Sanford Dam	Canadian River Municipal Water Authority	Sanford	1965
Twin Buttes Dam	USBR	San Angelo	1963

Table 7: Information obtained from: https://www.usbr.gov/projects/facilities.php?state=Texas

Within the state of Texas, the USBR has been responsible for a total of eight completed projects and in most cases, transferred operations to local operators. The projects which have transferred to local operators and are complete are listed in the table above.[92]

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA), officially created in 1979, is the federal agency responsible for assisting residents before, during, and following a disaster. Prior to 1979, the federal government assisted the country in times of disaster but not through a specific agency. FEMA administers grant programs, federal insurance, and other disaster response and preparation programs including putting representatives in place in emergency response centers or regional offices prior to a forecasted disaster.[93]

The FEMA Flood Map Service Center (MSC) is the public resource that the agency maintains for NFIP. Visitors to the MSC website can find the flood map for their area and access flood plain information. To keep the maps as up-to-date as possible, FEMA relies on states and communities to collect flood data such as areas where flooding has occurred in previous disasters. FEMA maps typically go through a public

[92] United State Bureau of Reclamation, *Projects and Facilities*, https://www.usbr.gov/projects/facilities.php?state=Texas (last visited Aug. 10, 2018).
[93] Federal Emergency Management Agency, *About the Agency* (March 26, 2018), https://www.fema.gov/about-agency (last visited Aug. 10, 2018).

review and appeal process as the results of these new maps could change building requirements in a community.[94]

To date in Texas, FEMA has awarded $2.4 million for 328 losses reported in 2018. In 2017, there were 92,693 losses reported for a total amount paid of almost $8.8 billion in Texas. The total payments included the cost of buildings, contents, and increased cost of compliance claims. FEMA also awarded $56.8 million for 11 grants in 2017 and has awarded one grant for a total award of $259,376 in 2018.[95]

National Weather Service

The National Weather Service (NWS) is a division of the National Oceanic and Atmospheric Administration (NOAA) and is charged with providing weather and water forecasts. They also provide up-to-date warnings to the public and state and local governments. The NWS has regional offices located throughout the country, with a focus on the science of weather and providing the most up-to-date information to avoid loss of life and property damage through warnings. The local offices also closely monitor water conditions and gages to accurately release information to the public. There are hundreds of weather stations throughout the state that report on local conditions.[96] The following table lists the cities where weather stations are headquartered. These stations provide weather updates to Texans.

National Weather Service Headquarters in Texas

Headquarter City
Amarillo, TX
Lubbock, TX
Oklahoma, TX
Dallas/Ft. Worth, TX
Shreveport, LA
San Angelo, TX
Midland/Odessa, TX
El Paso, TX
Austin/San Antonio, TX
Houston/Galveston, TX
Lake Charles, LA
Corpus Christi, TX
Brownsville, TX

Table 8: The National Weather Service, "NWS Weather Forecast Offices," https://www.weather.gov/srh/nwsoffices?site=tae, (last visited Sept.27, 2018).

During a storm which produces flooding, the NWS is critical to forecasting current and future conditions for local officials.

[94] Federal Emergency Management Agency, *Overview: Flood Hazard Mapping Updates* (July 13, 2016).
[95] Information provided by Federal Emergency Management Agency on August 7, 2018.
[96] National Weather Service, *Who We are*, https://www.weather.gov/about/nws/ (last visited Aug. 10, 2018).

Texas Silver Jackets - Federal & State Partnership

The Silver Jackets program was created to bridge the gap between state, federal, and local entities during flooding events and to facilitate flood planning. The Texas Silver Jackets focus on flood risk management and developing solutions. The team operates as a centralized entity to share coordination information and guidance on future projects such as new drainage systems, conduct studies utilizing data and models, handle public outreach, and keep open communication to avoid duplication of efforts across entities.[97]

Texas Silver Jackets Participating Agencies

Federal Entities	State Entities
U.S. Army Corps of Engineers - Ft. Worth and Galveston Districts	Texas Division of Emergency Management
Federal Emergency Management Agency - Region VI	Texas Water Development Board
U.S. Geological Survey	State Hazard Mitigation Office
National Weather Service	Texas Floodplain Management Association

Table 9: Silver Jackets, Texas, https://silverjackets.nfrmp.us/State-Teams/Texas (last visited Aug. 10, 2018).

Texas State Soil and Water Conservation Board

The Texas State Soil and Water Conservation Board (TSSWCB) was created in 1939 to coordinate conservation and abatement programs throughout the state. The TSSWCB provides technical assistance to 216 Soil and Water Conservation Districts (SWCD) who conduct various outreach activities, operate and maintain flood control structures, and conduct educational programs. TSSWCB also provides financial assistance to the SWCDs.[98]

The TSSWCD was appropriated $16.9 million per year in the General Appropriation Act for the 2018-2019 biennium, of which $6.7 million is allocated per year to dam maintenance. The board also employs flood control staff who provides engineering expertise, operation and maintenance program management, and state funded repair management.[99]

Reservoirs in Texas

Before exploring the status of reservoir operation in Texas and how best to track reservoir releases, the committee researched reservoir jurisdiction and the permitting process.

There are 51 reservoirs in Texas, of which the USACE operates 23, including the Addicks and Barker Reservoirs being studied through the interim charges.[100] Other reservoirs and dams are operated by cities, river authorities, water districts, power companies, and the United State Bureau of Reclamation (USBR).[101] Operators of reservoirs are responsible for the operation and maintenance, flood planning and mitigation,

[97] Silver Jackets, *Texas*, https://silverjackets.nfrmp.us/State-Teams/Texas (last visited Aug. 10, 2018).
[98] Texas State Soil and Water Conservation Board, *About*, https://www.tsswcb.texas.gov/about (last visited Aug. 10, 2018).
[99] Texas State Soil and Water Conservation Board, *Flood Control Budget - 10 Year Plan* (July 24, 2018).
[100] Information provided by U.S. Army Corps of Engineers (Aug. 6, 2018).
[101] U.S. Army Corps of Engineers, *Report: Texas Floods of 2015-2016*, ftp://ftpext.usgs.gov/pub/cr/tx/austin/lfahlquist/2015%20Flood%20Report%20-%20USACE.pdf (last visited Aug. 3, 2018).

and general overall supervision of the reservoirs. A full listing of reservoirs, their operators, and counties that have reservoirs can be found in Appendix B.

The TCEQ is the agency with jurisdiction for permitting new reservoirs. Any reservoir that utilizes state water or built on a state watercourse requires a state water permit from TCEQ. The process spans different federal and state partners and can take decades to complete. According to TCEQ, there is not a set timetable for the timing of the reservoir approval process. The reservoir permitting process begins with a distinction of the type of reservoir being built. This gives the agency the information it needs to determine whether the applicants need to obtain a water right permit or not. If the applicant does not need a water permit, the reservoir project can skip several steps. If the applicant does need a water permit, the reservoir must be an approved project in the State Water Plan, go through several reviews and studies, and receive an approved water right permit. Both types of reservoirs must meet certain requirements from other entities and meet requirements if over 5 acres.[102] The following chart depicts the process for permitting at TCEQ for a reservoir.

[102] Information provided by TCEQ on August 8, 2018.

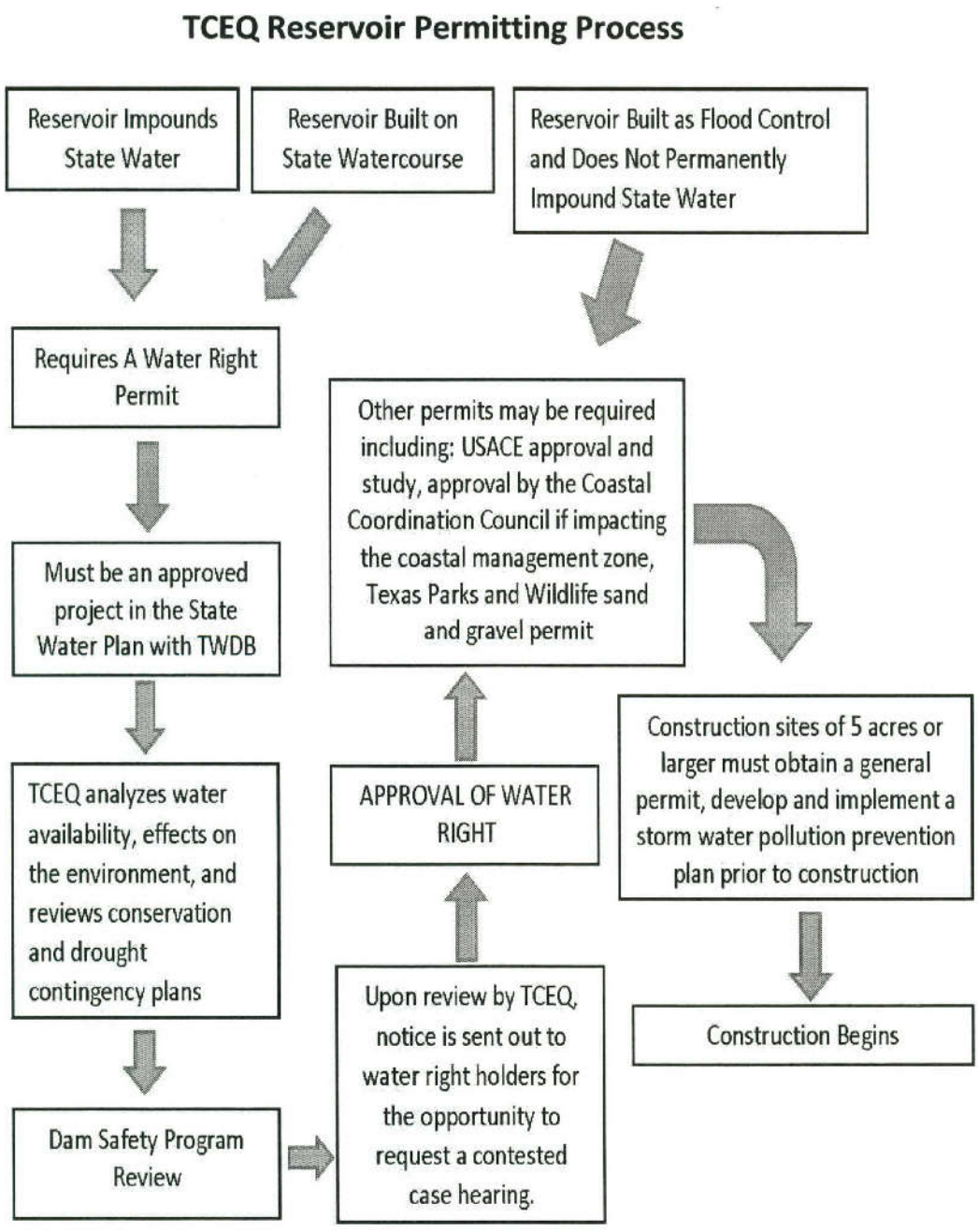

Figure 3: Information provided by TCEQ (Aug. 10, 2018); Chart created by Committee staff.

TCEQ currently has three pending water right applications for reservoirs: Lake Ringgold (Wichita Falls), Jim Bertram Lake (Lubbock), and Cedar Ridge Reservoir (Abilene).[103]

Previous Flood Control Reservoir Plans in Harris County

The Addicks and Barker Reservoirs were constructed by the USACE in response to devastating flood episodes in 1929 and 1935 in Houston, Texas. They are located close to the intersection of I-10 and State

[103] Information provided by TCEQ on August 8, 2018.

Highway 6 in Harris and Fort Bend counties.[104] The Addicks Dam is located on South Mayde Creek and the Barker Dam is located on the Buffalo Bayou. The reservoirs are not consistently full but serve as floodwater detention during rain events and protect Houston from experiencing the floods which prompted their construction.[105]

Originally, the federal flood control plan for the city included a third reservoir, White Oak, which would have provided additional flood management north of Houston into the San Jacinto River. The third reservoir construction plan was scrapped due to a rapid increase in land costs and development. A levee was to be constructed along Cypress Creek to prevent water overflow from the watershed and prevent water from over-running the Addicks Reservoir. Due to economic reasons, the levee with Cypress Creek was also deleted from the plans and the capacity for Addicks dam was instead increased. Construction was completed in 1948.[106]

A planning study published in August 2015 by Harris County Flood Control District and Texas Water Development Board estimated peak overflow into Addicks Reservoir from Cypress Creek during a 100-year flood was 12,678 cubic feet per second (cfs).[107] During Hurricane Harvey, prior to the release from the reservoir, a peak maximum flow of 72,200 cfs was recorded as flowing into the Addicks Reservoir.[108] Over five times the peak overflow for a 100-year flood was recorded prior to the controlled release. The 2015 Cypress Creek Overflow Report examined several options to facilitate the increase runoff from land development into Addicks and Barker Reservoirs.[109]

Cypress Creek Overflow Report Preferred Plans

Project Name	Approximate Cost	Overflow Impacts in the 100 Year Flood Area	Conservation Footprint
Plan 3 - Mound Creek Reservoir	$271 million $177 million w/in kind contributions	18,500 acres	3,100 acres
Plan 5 - Katy-Hockley N- Cypress Reservoir	$369 million $243 million w/in kind contributions	18,000 acres	5,000 acres

[104] U.S. Army Corps of Engineers: Galveston District, *Addicks and Barker Dams*, https://www.swg.usace.army.mil/Missions/Dam-Safety-Program/ (last visited Aug. 10, 2018).
[105] U.S. Army Corps of Engineers: Galveston District, *Addicks and Barker Reservoirs, Buffalo Bayou and Tributaries, San Jacinto River Basin, TX: Water Control Manual* (2012), https://www.swg.usace.army.mil/Portals/26/docs/water%20control%20manual/2012%20water%20control%20manual.pdf (last visited Aug. 10, 2018).
[106] *Id.*
[107] Texas Water Development Board, *Final Study Report: Cypress Creek Overflow Management Plan* (Aug. 18, 2015), https://www.hcfcd.org/media/1805/cypresscreekoverflowreport_fin.pdf (last visited Aug. 10, 2018).
[108] Harris County Flood Control District, "Immediate Report - Final, Hurricane Harvey - Storm and Flood Information" (June 4, 2018), https://www.hcfcd.org/media/2678/immediate-flood-report-final-hurricane-harvey-2017.pdf (last visited Aug. 10, 2018).
[109] Texas Water Development Board, *Final Study Report: Cypress Creek Overflow Management Plan* (Aug. 18, 2015), https://www.hcfcd.org/media/1805/cypresscreekoverflowreport_fin.pdf (last visited Aug. 10, 2018).

Table 10: Texas Water Development Board, Final Study Report: Cypress Creek Overflow Management Plan (Aug. 18, 2015), https://www.hcfcd.org/media/1805/cypresscreekoverflowreport_fin.pdf (last visited Aug. 10, 2018).

Staff with the Harris County Flood Control District indicated that while these plans can still be discussed, they require updating as land development in both plans has changed over the past three years.[110]

Dam Infrastructure

The safety of the state's dam infrastructure is critical as more areas in the state are developed in areas which would face loss of property and life in the event of a dam failure. Texas relies on dam structures to shape the landscape for land use development.

National Inventory of Dams

The National Inventory of Dams (NID) is maintained by the USACE. To be included in the NID, dams must meet one of the following: high hazard classification, significant hazard classification, equal or exceed 25 feet in height and exceed 15 acre-feet in storage; or equal or exceed 50 acre-feet storage and exceed 6 feet in height.[111] A high hazard classification refers to a dam in which loss of life is likely if the dam fails. A significant hazard classification is when there may not be probable loss of life, but there could be other factors such as economic loss, environmental damage, or disruption of vital services.[112]

NID Dams by Hazard Potential

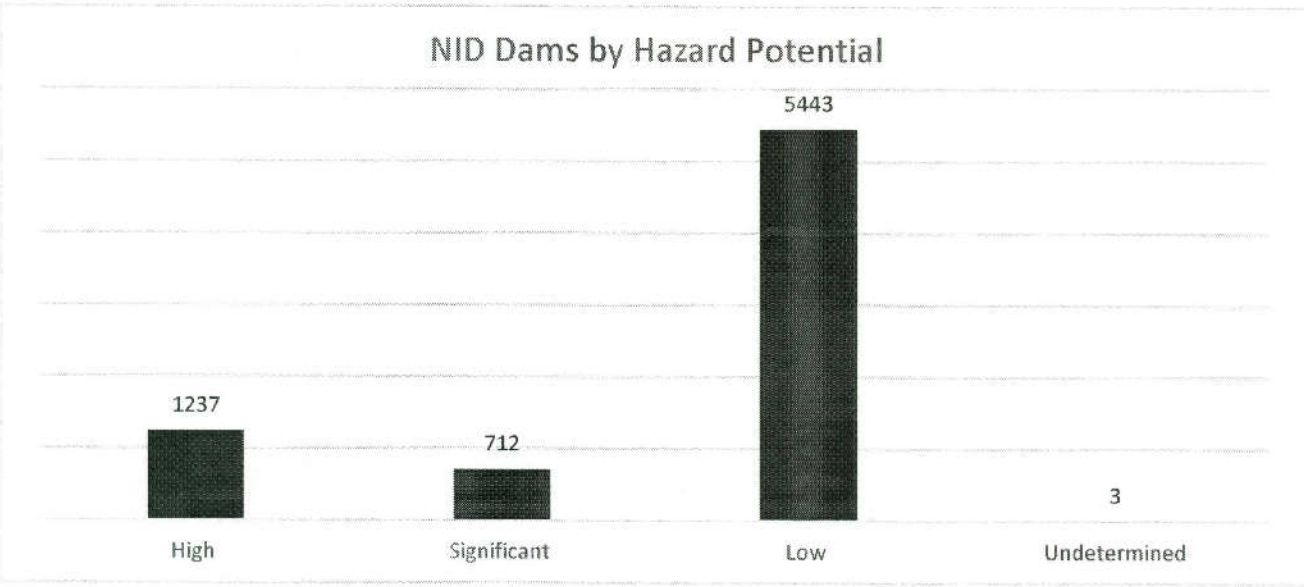

Figure 4: Chart data from NID state information.

Texas has 7,395 dams tracked by the NID and 7,101 of them are classified as earthen dams. About 31%, or 2,256 dams, are used for flood control and 795 are used for water supply.[113] The USACE maintains the

[110] Harris County Flood Control District Staff, Meeting Discussion (July 25, 2018).
[111] U.S. Army Corps of Engineers, *Introduction*, http://nid.usace.army.mil/cm_apex/f?p=838:1:0::NO (last visited Aug. 10, 2018).
[112] *Id.*
[113] U.S Army Corps of Engineers, National Inventory of Dams: Texas, http://nid.usace.army.mil/cm_apex/f?p=838:3:0::NO::P3_STATES:TX (last visited Aug. 10, 2018).

NID based on the best available information. Most dams are regulated either federally or by the state which simplifies the process for collecting data because state owned dams are tracked uniformly. This database is published every two years.[114]

National Inventory of Dams: Texas

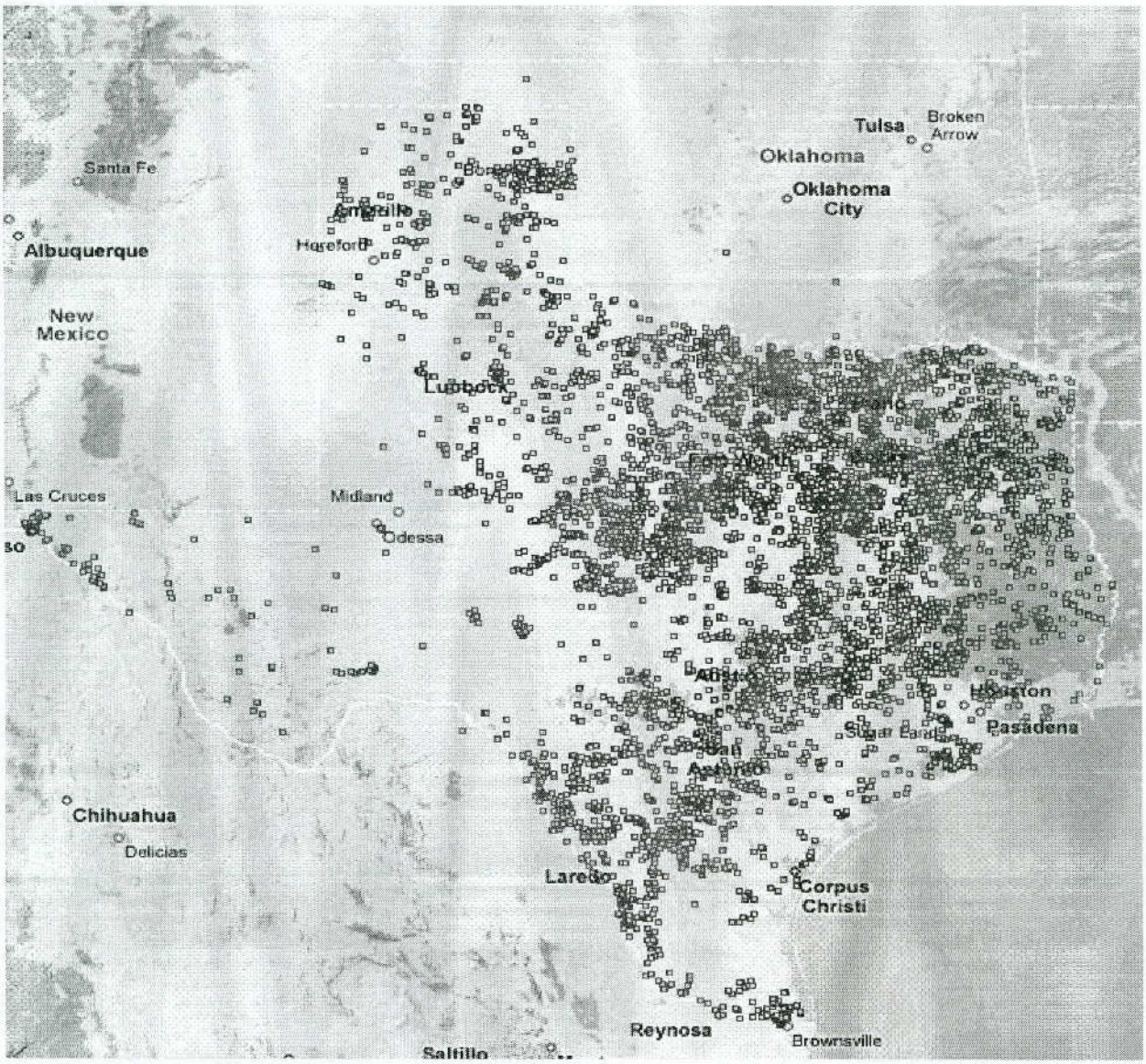

Figure 5: Information from the National Inventory of Dams

Earthen Dam Infrastructure

In 1936, a federal law was passed authorizing the creation of a nationwide watershed identification program to complement the United State Army Corps of Engineers (USACE) flood program which was created in response to major flood episodes in the state. The Flood Control Act identified 11 watersheds

[114] U.S. Army Corps of Engineers, *Introduction*, http://nid.usace.army.mil/cm_apex/f?p=838:1:0::NO (last visited Aug. 10, 2018).

with two entirely and one partial in the state. An appropriation 27 years later of $5 million was obtained by the U.S. House and Senate Appropriations Committees which created a pilot watershed program for four watersheds in Texas. The watershed program was made permanent one year later by passage of the Watershed Protection and Flood Prevention Act of 1954 which authorized technical and financial assistance to watershed groups who would then plan, negotiate, and secure sponsorship for watershed conservation and flood control. Since 1954, Texas has had 99 approved watershed plans.[115]

There are 2,041 flood control or erosion control dams that were built because of the establishment of the watershed program (see Appendix C). The U.S. Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS) assisted in construction of the structures. Of the 2,041 dams, 604 are considered high hazard, of which 481 built as low hazard but require upgrades due to land development. A higher hazard designation means there can be more damage done by failure.[116] "The number of dams needing rehabilitation which are upgraded to high hazard criteria because of urban development growth is about 21 dams per year."[117] With current funding, TSSWCB estimates that two dams can be rehabilitated per year.[118] A high hazard dam is one that faces loss of life if it fails.[119]

The program life of a dam under the jurisdiction of TSSWCD refers to the economic evaluation period used during the watershed development for the dam. During the program life, the expected benefits are realized which offset the federal investment in the project.[120] The chart below depicts the status of TSSWCB dams and their current program life status.

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[115] Texas State Soil and Water Conservation Board, *Watershed Program Briefing* (July 2018).
[116] *Id.*
[117] Texas State Soil and Water Conservation Board, *Executive Summary, Flood Control Budget - 10 Year Plan* (July 24, 2018).
[118] *Id.*
[119] Texas State Soil and Water Conservation Board, *Watershed Program Briefing*, (July 2018).
[120] Information provided by Texas State Soil and Water Conservation Board on Sept. 27, 2018.

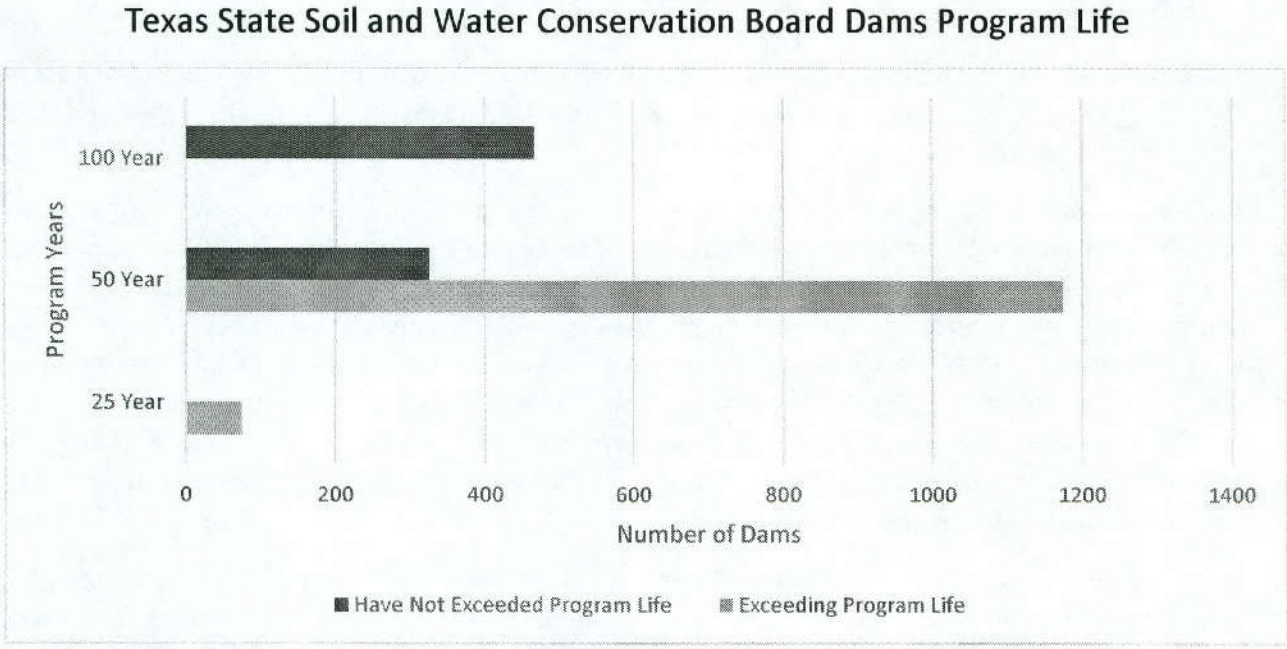

Figure 6: Information provided by Texas State Soil and Water Conservation Board (July 17, 2018).

According to information provided by TSSWCB, 1,250 total dams in the TSSWCB have exceeded their expected program life. If these dams are properly maintained and repaired as needed, they can be expected to continue to function.[121]

Similar to reservoirs, rising costs for maintenance and construction are issues faced by the TSSWCB for repairing or upgrading the structures. Each dam is sponsored by a SWCD which lacks taxing authority. Co-sponsors are needed to find funds which include cities, counties, WCIDs, river authorities, and other special purpose districts. The TCEQ is the designated agency which regulates the dams and performs safety inspections every 5 years.[122] According to TSSWCB, current needs for dam operation and maintenance is estimated to be $14 million. The dams need funding to update and keep from falling behind due to lack of sponsors to contribute to the local match for federal funds. Going forward, annual dam operation and maintenance should be about $2 million per year.[123]

The TSSWCB has assisted sponsors in meeting matching requirements for the USDA-NRCS for the Emergency Watershed Protection (EWP) program for dam repair. All federal funds have been expended which are set aside for dam repair. Future repairs will need to be solely state and sponsor funded. TSSWCB faces similar difficulties with dam rehabilitation. There are too many dams with not enough funding to cover the costs.[124]

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[121] Information provided by State Soil and Water Conservation Board (July 17, 2018).
[122] Texas State Soil and Water Conservation Board, *Watershed Program Briefing*, (July 2018).
[123] Texas State Soil and Water Conservation Board, *Executive Summary, Flood Control Budget - 10 Year Plan* (July 24, 2018).
[124] *Id.*

Committee Testimony on Interim Charge #1

Local, state, and federal entities provided an update regarding the status of current water infrastructure before, during, and after Hurricane Harvey at the Senate Committee on Agriculture, Water, and Rural Affairs hearing on January 29, 2018.

According to the City Manager of Wharton, Texas, they face a slow recovery from Hurricane Harvey flood related expenses due to the existing damages and rebuilding efforts from the 2015-2016 floods.[125] The city has been working with the United States Army Corps of Engineers (USACE) on flood control projects which included a levee system. Most importantly, the city would like more transparency from the General Land Office (GLO), Federal Emergency Management Agency (FEMA), and the Texas Department of Emergency Management (TDEM). For example, the city has struggled to get information on which residents in their jurisdiction need assistance. Wharton officials would like more transparency, communication, and coordination for flood projects, studies, and funding for the future so that local representatives can better track opportunities.[126]

According to the Mayor of Wharton, Texas, there is a flood control plan for the Lower Colorado River which has been partially funded by the federal government. Both the Travis County and Austin portions of the project were funded by the federal government leaving the $77 million City of Wharton portion unfunded. The city would need to pay for 35% of the project in order to receive matching funds for the rest of the project. The mayor stated the city is prepared to contribute to their portion to fund the project. The Mayor further stated that if the project had been completed, Wharton would not have experienced the catastrophic flooding during the storm.[127]

Colorado County, Texas, approximately 36 miles northwest of Wharton, estimated Harvey caused $3 million in damage to infrastructure and 172 homes were damaged in the City of Columbus. During the flooding event, the Brazos and Colorado River joined together to form one large lake. As of January 2018, FEMA funding had not reached Colorado County. The county judge recommends increasing the number of gages on streams and creeks for local officials to gather more information to pass along to local residents for more warning when flood conditions deteriorate.[128]

Generally, the county judges and mayors rely on the river authorities for assistance with flood events. It is their mindset that the Lower Colorado River Authority oversees the river basin in Colorado County and has the authority to manage releases based on their modeling. According to Ty Prause with Colorado County, more information and planning can only help.[129]

The big concern from the Matagorda County Judge, as it relates to flood control projects, is that most of the funding and attention will go to the urban centers as opposed to rural areas. The biggest

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[125] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Andres Garza with the City of Wharton).
[126] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Andres Garza with the City of Wharton).
[127] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Tim Barker with the City of Wharton).
[128] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Ty Prause with Colorado County).
[129] *Id.*

recommendation from Matagorda County is that in order to get flood control projects, such as levees and infrastructure, off the ground would be for a baseline appropriation to assist the local communities. Matagorda County, Texas has continued to work on projects related to Hurricane Ike in 2008.[130] Additionally, the Judge mentioned there is an opportunity for the state to collect floodwater in detention ponds and pipe the water to other communities.[131]

Montgomery County, Texas was in the process of completing the first phase of a drainage study prior to Hurricane Harvey. Since the storm, the county has continued to work on the study and recommends building channels to divert water to detention ponds for storage for later use. The early estimates for the project are $1.6 billion which would benefit Montgomery County and surrounding counties. Specifically, for the state, the county requested communication and influence assistance with federal agencies, specifically FEMA; and assistance with state matching funds to make up the difference to access federal matching funds.[132]

The Texas Commission on Environmental Quality (TCEQ) has the authority to remove debris from navigable waterways.[133] TCEQ works together with the Texas Parks and Wildlife Department (TPWD), GLO, and USACE depending on who owns land leading to the waterway.[134] Expertise is often with another entity besides TCEQ. For example, a request may be sent in for debris collected up against the supports of a bridge. In this situation, TCEQ would request assistance from TxDOT for their expertise in bridge engineering when removing the debris.[135]

Texas A&M Agrilife Extension Service partners with federal, state, and local entities to create plans for emergencies. The Service is an education agency with a network across the state made up of educators, volunteers, and county offices.[136] Prior to Hurricane Harvey, the agency set up shelters to streamline the process for sheltering animals. The Service stated they were responsible for sheltering over 1,200 animals in the aftermath of Hurricane Harvey. Additionally, animal supply points were created with food and water for both livestock and household pets. The A&M Agrilife Service mentioned they faced difficulty getting through flooded infrastructure to assist the agricultural producers with shelter and feed.[137]

According to John Barton with the Governor's Commission to Rebuild Texas, they have been working with local and state leaders to be the single point of contact for disaster related needs for public infrastructure. During a disaster there is also an emphasis on housing. The GLO is responsible for housing and private

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[130] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Nate McDonald with Matagorda County).
[131] *Id.*
[132] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Craig Doyle from Montgomery County).
[133] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Bryan Shaw with the Texas Commission on Environmental Quality).
[134] *Id.*
[135] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Bryan Shaw with the Texas Commission on Environmental Quality).
[136] Texas A&M AgriLife Extension, *Who We Are*, https://agrilifeextension.tamu.edu/about/who-we-are/ (last visited Sept. 18, 2018).
[137] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Monty Dozier with the Texas A&M AgriLife Extension Service).

property as opposed to the Commission which is responsible for public infrastructure. Debris removal was the first focus of the Commission to clear roadways.[138]

The Governor's Commission has been researching and communicating with local officials about the possibility for a third reservoir in the Harris County area. All proposed flood projects are eligible for discussion. The Commission is working to weigh the cost-benefit of different projects and studying land use patterns. The goal is to find the best use of funds but with local coordination and involvement. Specifically, for the third reservoir, the commission would like to assemble stakeholders to find the best plan for the region.[139]

The Animal Health Commission coordinated with agencies, organizations, and private citizens to set up operations 21 days in advance and served livestock for 15 days.[140] During the flooding event 37,855 livestock were assessed, 16,202 were assisted, and 2,352 sheltered. Coleman Locke with the Texas Animal Health Commission indicated the biggest issue during a flooding event is disease and taking care of the livestock after being exposed to standing water.[141]

The Texas State Soil and Water Conservation Board (TSSWCB) is responsible for the operation and maintenance for over 2,000 earthen dam structures in the state. The dams are increasingly being upgraded to high hazard status as population continues to grow. TCEQ has reclassified 21 flood control dams per year as high hazard. The current funding does not cover the cost to rehabilitate the growing list of dams which need repair. In response to Hurricane Harvey, the TSSWCB is working to rehabilitate five dams which were damaged during the storm.[142]

To best protect the state, TSSWCB recommends that earthen dams in the state be considered part of the state infrastructure plan.[143]

The West Houston Association was created in 1979 to be an advocate for better infrastructure within a 1,000 square mile area from Missouri City to Hempstead. The Hurricane Harvey had a large amount of flooding for their association area. Investment is needed based on the worst possible flooding to prevent a reoccurrence. The association is looking for investments and projects that will pay for themselves. As an example, Sims Bayou was a $390 million project which upgraded the bayou system to withstand 12 inches of rain in a 24-hour period. Zero houses flooded along Sims Bayou during Hurricane Harvey.[144]

A third reservoir has been studied several times including during the original construction of Addicks and Barker Reservoirs. The West Houston Association believes that the state needs to move from studies to construction on projects that are shovel-ready. Texas Water Development Board has been one of the

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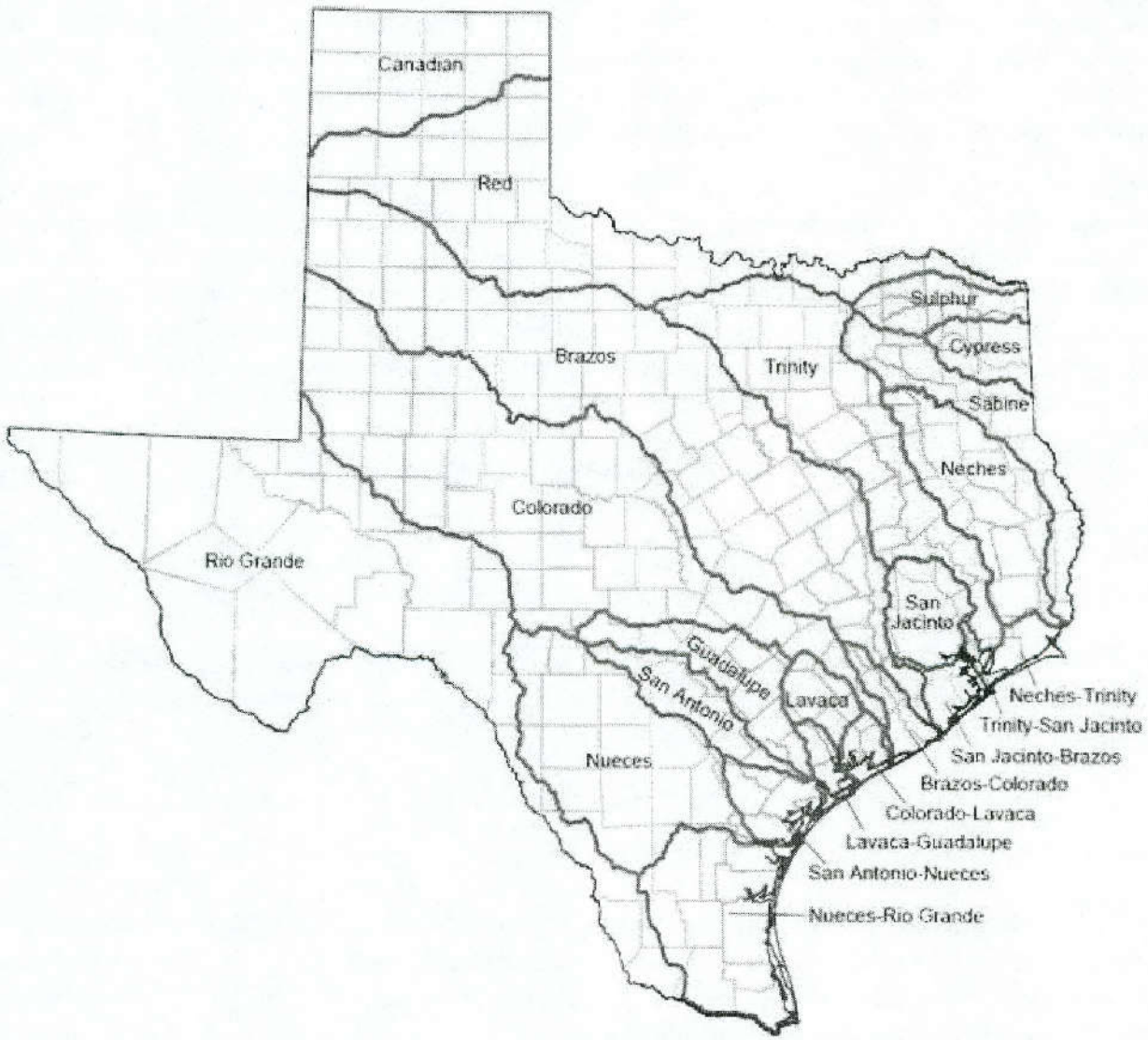
[138] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from John Barton with the Governor's Commission to Rebuild Texas).
[139] *Id.*
[140] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Coleman Locke with the Texas Animal Health Commission).
[141] *Id.*
[142] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Rex Isom with the Texas State Soil and Water Conservation Board).
[143] *Id.*
[144] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, January 29, 2018 (oral testimony from Augustus Campbell with the West Houston Association).

agencies helping local entities with projects that are ready through their funding avenues.[145] As previously discussed, TWDB has several funds such as the Clean Water State Revolving Fund and the Texas Water Development Fund which are both eligible to be used for flood control projects.

Recommendations

State Flood Plan

Applying the best principles learned from over 50 years of creating the State Water Plan, Texas Water Development Board (TWDB) should take the lead on coordinating and overseeing regional flood control planning. TWDB has been a leader in flood projects with local communities. As the state agency most familiar with stakeholders, TWDB will be able to manage the organization of the groups, technical assistance, and final submissions of flood control plans.



Texas is a state of 23 of river basins with cities, towns, watersheds, districts, river authorities, and

[145] *Id.*

countless other groups which serve a vital role in flood control planning; therefore, it is recommended that the state undertake basin-wide flood control planning using science and mapping coupled with collaborative efforts to adequately protect property and the lives of Texas residents.

Each flood control planning group's river basin will be made up of a representative from each county in the flood basin who will be able to convey the best possible plans for their communities. River authorities will serve as key stakeholders in the overall coordination of flood mitigation. Utilizing their expertise and knowledge, the river authorities will serve as the host entities for their basins. Their duties will be both organizational and in a leadership capacity to make sure the regional plan is completed in the timeline set forth by the TWDB.

Each representative from a county serving on the flood control-planning group must receive input from the public, local officials, industry, and other stakeholders, including communities actively participating in the Community Rating System program, critical to creating the comprehensive plan. TWDB will develop rules to ensure that input is received from the bottom up. Included in the rule making and process for group development created by the agency, the counties will be required to hold public meetings to receive input and incorporate the information in the planning process.

TWDB will need additional resources to undertake this new role. The agency has already begun the process for expanding their current efforts in mapping and research with their 2020-2021 biennium Legislative Appropriations Request (LAR). To implement the State Flood Plan (SFP), TWDB estimates total costs including collection and development of supporting science, data, and information, at around $182 million which includes the $4.4 million in the LAR request. The costs are estimated to move the state in the right direction, but a full mapping of the state for flood control purposes is estimated at $600 million total which includes the portion from the agency's LAR.

Estimated Costs in Millions	Explanation of Expenditure
$64	Base-level engineering, including data collection, modeling, and mapping activities.
$16	Public discovery process that helps communities identify areas at risk for flooding and solutions for reducing that risk.
$86	Analysis and planning activities, including map and mitigation strategy analysis, production of mitigation plan, and a public process to support the plan's development.
$2.138	Included in TWDB 2020-21 LAR for data hub, research, TexMesonet expansion, and reservoir flood pools.
$14	Administrative costs which include 31 new FTEs, 11 of which are included in the 2020-21 LAR.

TWDB estimates the initial timeline for coordinating the creation of the planning groups would take two years to host stakeholder meetings, develop the rules, and receive public input. Following the two years to coordinate, the planning groups would be given two to three years to complete their plans for the TWDB to compile it into a statewide plan and publish.

Flash Flood Episodes

The Operation Manuals and protocol for planned water releases for reservoirs should be reviewed and updated based on new science and data for stream flows. Since many of the operations have been decided based on land development at the time, updates may be needed in order to better protect against property damage and loss of life. Additionally, owners and operators should expand the capacity of reservoirs whenever possible. By dredging or removing debris, the capacity can be expanded for a future flash flood.

Collaboration with the TSSWCB, USACE, and local entities to build earthen dams and infrastructure to assist stream flow levels into rivers and reservoirs will lessen the amount of water that inundates residents.

Clear Jurisdiction for Debris Removal

While TCEQ has jurisdiction for debris removal, there is considerable confusion for accountability and coordination when GLO, TxDOT, DPS, river authorities, or another agency steps in to remove debris.

The committee recommends clear delineation of the responsibilities of state agencies and river authorities with regard to dredging and debris removal so that local officials and private landowners have direction on who they can contact for assistance in clearing infrastructure such as roads, bridges, and water ways.

Earthen Dam Repair and Replacement

Earthen dams in the state need immediate repair. By neglecting this piece of state infrastructure while land development has continued, large populations are now at risk from flooding if a damaged dam was no longer able to hold back water. This committee recommends that TSSWCB prioritize dams in the most need of repair and that the state assist with funding the local portion of the costs, paired with the federal portion. Earthen dams should also receive full consideration as part of state infrastructure and incorporation required into a state flood plan.

Education and Coordination

To help promote coordination and an understanding of new flood related policies and procedures that will be put into place, the committee recommends that state and local emergency response teams go through additional continuing education programs during this transition.

Encourage communities to participate in the Community Rating System (CRS) through funding and education from TDEM and Texas Water Development Board. Whenever possible, these agencies should work closely with communities to facilitate higher ratings. The committee recommends expanding the education for communities for participation in the NFIP.

Addicks and Barker Reservoirs

Conduct a study to accurately map the opportunity for deepening the existing Addicks and Barker Reservoirs, diversion channels, bayous, and the creation of diversion ponds for flood control. In order to prevent further flooding, an additional reservoir with a water supply component would benefit the region. All available opportunities for water supply development through Aquifer Storage & Recovery or transport should be explored.

Funding Resources

To prevent future damage from flooding, Texas needs an infrastructure funding for water projects that will last through budget cycles which acts similarly to the State Water Implementation Fund of Texas (SWIFT). A State Infrastructure Fund, with funds set aside from GR and the ESF, and held outside of the treasury, could support infrastructure projects, including multi-year flood control projects. These projects have the possibility to extend beyond a two-year budget cycle. It is incumbent upon the legislature to allow for the time needed to plan, construct and complete the projects envisioned in this report, along with projects yet to be determined, in any funding solutions.

Following devastating floods, there is often an influx of federal and state funding sources. At hearings in Wharton and New Caney regarding Hurricane Harvey, countless local officials and residents explained the need for a centralized source for funding opportunities. TWDB is continuing to consolidate information, such as how to prepare for a flood and gage data, on the www.TexasFlood.org website. The agency should be designated as the centralized source for information on applying and tracking federal funds related to flood planning and projects. The information will be made available on the website as a tool for the public, local officials, and state leaders to follow funds and account for every available dollar.

To collect the most accurate and timely information, state agencies with funds which can be used for flood planning or mitigation projects must submit quarterly reporting to TWDB. The information would include the original total of funds, spent-to-date amounts, and information for eligibility for the funds.

Interim Charge #2:

Study and identify ways to improve the capacity and maintain the structure of the Addicks and Barker Reservoirs. Report on mechanisms that would ensure the public has access to timely and transparent release figures from reservoirs across the state.

Committee Hearing Information

The committee held a public hearing on October 16, 2017 to hear invited and public testimony regarding the Addicks and Barker Reservoirs operation during and after Hurricane Harvey. Lieutenant Governor Dan Patrick welcomed the committee and explained that in the future, the state can take steps to mitigate flooding, create better transparency, build new reservoirs, designate debris clearing activities, and build up the state roads and bridges. The issue of flood control planning is multi-faceted.[146]

The hearing included invited testimony from the following persons:

- Craig Doyal, Montgomery County Judge
- Roy Turner, Chambers County Emergency Management Coordinator
- Russ Poppe, Executive Director of the Harris County Flood Control District
- Byron Williams, Chief of the Project Management Branch of the United States Army Corps of Engineers
- Bech Bruun, Chairman of the Texas Water Development Board
- Robert Mace, Deputy Executive Administrator of Water Science and Conservation at the Texas Water Development Board
- Chuck Finney, State Coordinator for the Texas Department of Emergency Management
- Quincy Allen, Houston District Engineer for the Texas Department of Transportation
- John Hofmann, Executive Vice President of Water for the Lower Colorado River Authority
- David Montagne, General Manager with the Sabine River Authority
- Jace Houston, General Manager with the San Jacinto River Authority

Jurisdiction of Addicks and Barker Reservoirs

During Hurricane Harvey, the Addicks Reservoir north spillway was breached, and an uncontrolled flow impacted businesses and housing subdivisions. The Barker Reservoir did not encounter a breach on its spillways. Due to the increased flooding north of the reservoirs and the predictions for continued overflow from Cypress Creek, the Corps made the decision to conduct a controlled release. This sent 16,000 cubic feet of water per second downstream. The result of the release flooded neighborhoods and businesses, required water rescues of residents, and did not recede until September 12, 2017.[147]

According to the USACE, in order to warn neighboring communities of reservoir operations, each project has an Emergency Action Plan that identifies local, county, state, and federal contacts used for

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[146] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Lieutenant Dan Patrick).

[147] Harris County Flood Control District, "Immediate Report - Final, Hurricane Harvey - Storm and Flood Information" (June 4, 2018), https://www.hcfcd.org/media/2678/immediate-flood-report-final-hurricane-harvey-2017.pdf (last visited Aug. 10, 2018).

coordination before, during, and after flood events. The contacts are meant to keep emergency officials and the public advised of operations.[148]

Since the construction was completed in the 1930's, there have been numerous studies and improvements to Addicks and Barker reservoirs, dams, canals, and embankments. The gages that report on a constant basis are owned in a collaborative agreement with USGS and the NWS monitors rainfall effecting the reservoirs.[149]

Committee Testimony on Interim Charge #2

Orange County, Texas Judge Stephen Colton explained that the county was severely impacted by Hurricane Harvey related damage. There were 24,000 homes damaged out of 40,000 and 28,000 Federal Emergency Management Agency (FEMA) registrations. They estimated about 20% of their residents have flood insurance. There are two rivers that cause flooding in Orange County, the Nueces and Sabine Rivers. Both flooded their banks due to heavy rainfall and dam releases from the north. The dams which release water are owned and operated by the United States Army Corps of Engineers (USACE). The USACE is required to operate under guidelines set forth by the federal government so they are unable to do pre-release of water before a major storm.[150]

According to Judge Colton, the damage from Hurricane Harvey is estimated in the millions of dollars and the state would benefit from a statewide flood mitigation plan that would address drainage issues as Orange County, Texas has faced. The cost associated with planning and implementing a risk assessment outweighs the cost associated with disaster recovery following a storm.[151]

USACE plans in the region originally included a third flood control reservoir.[152] While the reservoir was never constructed, in the case of Hurricane Harvey, county officials in Orange County, Texas believe significant damages would have been avoided if it had existed. Additionally, the USACE is continuing to work on the Coastal Spine or the levee system which is being built along the coast to protect communities; however, local communities are being asked to meet the federal matching requirements in a way that is impossible due to the high cost of the match.[153]

Chambers County, Texas is a coastal county which does not usually act as a shelter county, which is a county who provides emergency and basic needs for others, as opposed to being part of an evacuation zone. According to Roy Turner with Chambers County, in the case of Hurricane Harvey, the county operations needed to provide basic emergency needs to their residents as opposed to evacuating. Mr.

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[148] Department of the Army: U.S. Army Corps of Engineers, *Guidance For Emergency Action Plans, Incident Management And Reporting, And Inundation Maps For Dams And Levee Systems (2020)*, https://www.publications.usace.army.mil/Portals/76/Publications/EngineerCirculars/EC_1110-2-6074.pdf?ver=2018-01-22-100438-250 (last visited Sept. 18, 2018).

[149] *Id.*

[150] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Judge Stephen Carlton, Orange County).

[151] *Id.*

[152] U.S. Army Corps of Engineers: Galveston District, *Addicks and Barker Reservoirs, Buffalo Bayou and Tributaries, San Jacinto River Basin, TX: Water Control Manual* (2012), https://www.swg.usace.army.mil/Portals/26/docs/water%20control%20manual/2012%20water%20control%20manual.pdf (last visited Aug. 10, 2018).

[153] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Judge Stephen Carlton, Orange County).

Turner also explained that the most important thing that the state can do is to work with local officials to keep their bayous clear of debris so that water can move through the county efficiently.[154]

Montgomery County, Texas is researching options for reservoirs in the county that would interact with Harris County to stop floodwaters. The county has been actively pursuing flood control within the county to discourage residential and commercial building in flood zones and to develop flood control strategies that will better serve the residents.[155] According to Judge Doyle with Montgomery County, instead of one large reservoir there has been discussion about several small reservoirs along Lake Creek. Many of the creeks could use small reservoirs to help mitigate water moving into the San Jacinto River. Several smaller reservoirs could stall and move water away from more populated areas.[156]

The Harris County Flood Control District (HCFCD) was created in response to devastating floods in Harris County in the 1930s. HCFCD oversees 1,800 square miles of land and 2,500 miles of channels.[157] In working to complete projects, HCFD looks for partnership opportunities. According to Russ Poppe with the HCFCD, one of the most common partners is the USACE who currently has four construction-ready projects underway with HCFCD.[158]

The first is the Clear Creek project which received the highest rainfall total of 47 inches during Hurricane Harvey. The second is the Brays Bayou which is 80% complete. The total cost for the project is $450 million which equates to $15-20 million per inch of water reduction. The project has been in the process in some capacity for the last 15 years. The Whiteoak Bayou project has focused on the lower portions of the bayou as they receive the most flooding. Last, Hunting Bayou, while small, receives significant flooding which makes the LBJ Hospital located on the bayou inaccessible during storms. The average time for getting the projects to construction-ready status is 10 years.[159]

HCFCD explained that they need assistance with upfront funding and not annual appropriations so that the district can move forward with the USACE for their projects. Federal programs in which the HCFCD participates are typically a 65:35 match for federal and local funds. The Sims Bayou project which included widening and deepening of 19 miles of the bayou, is an example of a $400 million project that ultimately paid for itself in damages saved during Hurricane Harvey.[160]

The USACE facilitates flood risk management and currently has a study in partnership with HCFCD which would include another reservoir or dam for the area. Before a study is completed, there is no way to know what option would best benefit a region because of the changes in land development. The USACE can partner with local entities to clear out bayous and drainage channels.[161]

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[154] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Roy Turner, Chambers County).
[155] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Craig Doyle, Montgomery County).
[156] *Id.*
[157] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony form Russ Poppe, Harris County Flood Control District).
[158] *Id.*
[159] *Id.*
[160] *Id.*
[161] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Byron Williams, Chief of the Project Management Branch of the United States Army Corps of Engineers).

Dredging and clearing authority for local entities is available through the USACE with up to $500,000 in funds accessible to complete projects. The USACE encourages communities to partner with them to clear channels and drainage ditches.[162]

There are multiple programs that exist at TWDB for flood projects and the agency has the framework in place to make interest-free loans for projects which meet certain criteria including disaster related infrastructure. In their 60-year history, TWDB has never experienced a default on a loan.[163]

Over the past several sessions, the Legislature made it easier for entities to participate in Aquifer Storage and Recovery (ASR) with the passage of HB 1989 in the 74th Legislative Session which enabled ASR and HB 655 in the 84th Legislative Session which made the permitting process more conducive.[164] There has been a greater interest from across the state of inquiries with TWDB for projects related to ASR. It is possible to take floodwater and store it in an aquifer; however, the water must be cleared of contamination or sediment before it is stored underground. All water which is used in ASR must meet Federal Drinking Water requirements.[165]

The Texas Department of Emergency Management (TDEM) processes the information such as release rate in cubic feet per second (cfs) for water releases and flooding information. The information is interpreted for the public to best understand and make decisions.[166]

According to John Hofmann with the Lower Colorado River Authority (LCRA), the river authority has jurisdiction over the lower Colorado River basin and provides public recreation, water supply, electricity, and maintains a hydromet system with 275 gages that shares information available to the public on LCRA's website. During Hurricane Harvey, the LCRA website devoted to river flow and gage reads received 90,000 visitors, 475,000 website page views, and an average 13 minutes per page view. The website is updated on a 15-minute interval. The NWS also utilizes the information to estimate river levels. While using the USGS gage system, the LCRA added additional gages throughout the river basin to accurately measure flooding in possible rocky areas.[167]

The LCRA has five reservoirs in the river authority with an agreement in place with the Federal Emergency Management Agency (FEMA) which creates the guidelines for flood stage activities. LCRA has full operational jurisdiction over the reservoirs.[168] Lake Travis has a similar plan with the USACE.[169] The LCRA

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[162] *Id.*

[163] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Bech, Texas Water Development Board).

[164] Texas Water Development Board, "Aquifer Storage and Recovery," http://www.twdb.texas.gov/innovativewater/asr/index.asp (last visited Sept. 18, 2018).

[165] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Robert Mace, Texas Water Development Board).

[166] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Chuck Finney, Texas Division of Emergency Management).

[167] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from John Hofmann, Lower Colorado River Authority).

[168] *Id.*

[169] *Id.*

has had up to 30-35-inch rainfall events occur over their history and, in those situations, as explained by John Hofmann, "the flood pool gets used in order to hold the water upstream."[170]

The Lower Colorado River Authority flood operations notification system is a subscription program where the public can sign up to be notified when flood procedures begin at a reservoir.[171]

According to the LCRA, the off-channel reservoirs in the lower basin do not assist in flood protection because when it was time to pump the water to the off-channel storage, the pumps would be clogged. There is an opportunity to pump the floodwaters at the end of a flooding event once the debris has moved through the river and utilize the water for supply needs.[172]

The committee requested information from LCRA with their involvement with debris removal. LCRA has limited experience in doing debris removal because the amount of debris is overwhelming for a river authority their size. However, for the Hurricane Harvey event, LCRA will be dredging or clearing some of their waterways but not on a large scale.[173]

David Montagne explained that the Sabine River Authority (SRA) does not have the authority to remove debris from the river. The SRA has authority over the projects in which they have purchased the land to construct the three reservoirs.[174] According to the SRA, the General Land Office (GLO) has authority over the river. There are several different state agencies over different aspects of the rivers. [175]

According to Jace Houston, the San Jacinto River Authority oversees Lake Conroe in Montgomery County which is a water supply reservoir and has no flood control aspects. The lake is designed to operate at full lake level and the operational guidelines have limited discretion during flood episodes. There is no option to hold the water in Lake Conroe, as it cannot act as a flood control reservoir.[176]

Pre-release of water as a flood control strategy is not generally a policy for the SJRA as any release would burden Lake Houston and the city systems. Due to the way the river and streams interact, any releases would need to be complete months in advance.[177]

Jace Houston explained that the SJRA has a notification system in place to continually send updates regarding the emergency management operations as flood releases occur during a flooding event. The SJRA is working with the HCFCD, Montgomery County, and other local officials to unify the gages to a regional site so that the public can accurately see their river forecasts. Ultimately, SJRA would like their information to be incorporated into a state website.[178]

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[170] *Id.*
[171] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from John Hofmann, Lower Colorado River Authority).
[172] *Id.*
[173] *Id.*
[174] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from David Montagne, Sabine River Authority).
[175] *Id.*
[176] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Jace Houston, San Jacinto River Authority).
[177] *Id*
[178] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Jace Houston, San Jacinto River Authority).

The SJRA works with the NWS and local forecasters to prepare for major storms and flooding events. For Hurricane Harvey, the SJRA was getting misleading forecasts of 6-10 inches a day as the storm was making landfall. The SJRA would have launched communications and notification differently if they had known the exact outcome of the hurricane.[179]

Recommendations

While there have been some updates to canals and bayous along the Addicks and Barker Reservoirs, there has been little done to the structures themselves. The committee recommends clearing reservoirs of brush and large trees to create more capacity for floodwaters. The HCFCD has projects listed within the recently passed bond election which address the capacity issues within Addicks and Barker Reservoirs.[180] The state legislature should support these efforts and partner with the federal government to increase capacity and update the reservoirs through a deliberate effort to provide for multi-year funding to address the movement of water during a flood event, considering every opportunity to conserve that same water through aquifer storage and recovery, holding ponds and other water supply development opportunities

As recommended in Interim Charge #1, assign debris removal to a designated agency or private vendors with the contracting oversight by the best applicable state agency.

In reservoirs which are managed by the state and local authorities, real time information should be collected in one location on a website for local emergency response officials to communicate to their residents. TWDB and river authorities should partner together to better communicate to the public that a release of water from the reservoir is going to happen through the TWDB flood website.

[179] *Id.*

[180] Harris County Flood Control District, Bond Project Map, http://www.harriscountyfemt.org/cb (last visited Sept. 18, 2018).

Interim Charge #3:

Evaluate current state data-sharing standards for rainfall and stream gages and whether regional flood management projects and flood warnings should be hosted in a centralized location, such as a state agency web page. Determine whether a statewide real-time flood warning system could be developed and coordinated through mobile devices, TxDOT electronic signage, communication devices and whether existing local and regional forecasting infrastructure could be integrated into a centralized inclement weather forecasting system.

Committee Hearing Information

The committee held a public hearing on October 16, 2017 to hear invited and public testimony regarding a statewide flood warning system. The committee invited local entities, officials, and the public to testify about the benefits and challenges to adequate communication during flood episodes.

The hearing included invited testimony from the following persons:

- Craig Doyal, Montgomery County Judge
- Roy Turner, Chambers County Emergency Management Coordinator
- Russ Poppe, Executive Director of the Harris County Flood Control District
- Stephen Carlton, Orange County Judge
- Mark Keough, State Representative - District 15
- Byron Williams, Chief of the Project Management Branch of the United States Army Corps of Engineers
- Bech Bruun, Chairman of the Texas Water Development Board
- Robert Mace, Deputy Executive Administrator of Water Science and Conservation at the Texas Water Development Board
- Chuck Finney, State Coordinator for the Texas Department of Emergency Management
- Quincy Allen, Houston District Engineer for the Texas Department of Transportation
- John Hofmann, Executive Vice President of Water for the Lower Colorado River Authority
- David Montagne, General Manager with the Sabine River Authority
- Jace Houston, General Manager with the San Jacinto River Authority

Gages and Warning Systems in Texas

There are over 10,000 USGS stream gages providing current conditions in the country and 766 in Texas that provide current conditions in 15-60 minutes intervals.[181] The different entities which contract with USGS for stream gage operation include five federal partners, four state agencies, eighteen cities, and three private companies.[182] Stream gages provide streamflow and water height which is sent via satellite to a data storage center and to the USGS website for real time information.[183]

[181] United States Geological Survey, *National Water Information System: Web Interface*, https://waterdata.usgs.gov/nwis (last visited Aug. 13, 2018).
[182] Information provided by United States Geological Survey (July 23, 2018).
[183] United States Geological Survey, "How Does a U.S. Geological Survey Streamgage Work?," Fact Sheet 2011.

The USGS utilizes rapid-deployment gages (RDG) which are temporarily deployed during a flood event on rivers, streams, lakes, and along the coast. A temporary RDG can be placed close to a permanent gage to serve as a backup.[184]

In partnership with the USGS, TWDB maintains 99 streamflow, lake, and rain gages throughout the state in which 82 of them are specifically for flood forecasting and warning. In 2018, 12 streamflow gages were installed for flood forecasting and warning at approximately $56,000 each.[185] The TWDB estimates installation in 2019 will be $52,000 per gage. [186]In total, for flood forecasting and warning gages, it will cost close to $1.7 million. The total includes the added cost in 2019 for rain gages which were not regularly maintained by USGS in years prior.[187]

TWDB uses the gage information both within their network and from other gages in the state and maintains an informational website which provides information on river levels, road closures, weather forecasts, and lake levels. The site also gives information on what to do before, during, and after a flood. During a flooding event, TWDB can give real time information for officials and the public.

The Lower Colorado River Authority (LCRA) has 275 gages available for real time data which is published on their website. The LCRA created a Flood Operations Notification System that serves as a subscription service which pushes notifications when flood operations commence.[188]

Flood Warning Systems

Currently, Texas does not have a uniform warning system for flood events in the state. The National Weather Service (NWS) is the federal agency that issues flood warnings which are disseminated to the appropriate local entities. Through the Wireless Emergency Alerts (WEA) system, the NWS partners with federal agencies to send alerts on mobile devices. Types of alerts that are included are extreme weather warnings, local evacuation alerts, AMBER alerts, and presidential alerts during a national emergency. Weather related alerts are sent for tornados, tsunamis, flash floods, hurricanes, typhoons, dust storms, and extreme wind warnings. Over 100 mobile carriers participate in the WEA program including all the major carriers. [189]

The NWS alerts disseminated to local authorities will notify an individual about a warning in their area or an evacuation due to flood, but they do not send an alert that flooding is an immediate danger. As an example, you may get a warning that a flash flood is in effect in the area for several hours, but if a flash flood occurs, there is no follow up alert sent to move to higher ground or evacuate.

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[184] United States Geological Survey, "Rapid-Deployment Gages."
[185] Texas Water Development Board, *Item 10,* http://www.twdb.texas.gov/board/2018/08/Board/Brd10.pdf?d=14774.800000013784 (last visited Aug. 13, 2018).
[186] Information provided by Texas Water Development Board (Aug. 14, 2018).
[187] Texas Water Development Board, *Item 10,* http://www.twdb.texas.gov/board/2018/08/Board/Brd10.pdf?d=14774.800000013784 (last visited Aug. 13, 2018).
[188] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, Testimony: John Hoffman, Lower Colorado River Authority (Oct. 16, 2017).
[189] National Weather Service, *Wireless Emergency Alerts Save Lives*, Fact Sheet, https://www.weather.gov/media/wrn/WEA_flyer_final.pdf (last visited Aug. 15, 2018).

AMBER Alert System - A Statewide Warning System

The Texas Department of Public Safety (DPS) administers the AMBER system. The AMBER Alert system which alerts the public of missing children was created in 2002 via Executive Order RP-16 by Governor Rick Perry and affirmed in legislation on the national level the following year with the passage of the PROTECT Act.[190] Resource partners who participate in the system include: TxDOT, NWS, law enforcement, the media, the Texas Lottery Commission, Independent Bankers Association of Texas, the National Center for Missing and Exploited Children, and the Texas Department of Public Safety.[191]

The AMBER Alert system was originally set up as an agreement with the Federal Communication Commission (FCC) before the national alert system was created. Local law enforcement sends potential alert information to the State Operations Center (SOC) housed within DPS which is verified and turned around quickly into an alert to the public.[192]

Committee Testimony on Interim Charge #3

According to Orange County Judge, Stephen Carlton, Orange County received heavy rains which led to the road closures of I-10 in both directions and cut off transportation options moving north. County officials believe the county would benefit from stronger infrastructure to evacuate residents out of the path of the storm and to get supplies to their communities in need after a disaster.[193] According to Judge Carlton, the USACE was unable to provide a model of where the water was going to move and did not provide information that would give Orange County officials more time to plan.[194]

Chambers County Emergency Operations worked closely with the Trinity River Authority to stay up-to-date on floodwater releases as explained by the Chambers County Emergency Management Coordinator, Roy Turner. The county believes that the River Authority was good at providing the information and posting to their websites, but the residents complained that the information was not in a format they could understand. Instead, information was in water related terms. Roy Turner of Chambers County explained that the residents want to know how many feet water would be rising and when to evacuate as opposed to data with little explanation. Officials with Chambers County believe they did receive timely warning of the water releases with about four hours' notice between big events.[195]

According to Roy Turner, the county utilized social media including Facebook and Twitter along with reverse 911 services to warn residents. Information posted was very similar to the information shared by the Trinity River Authority, such as stream gage numbers, with additional information about where flooding may occur.[196]

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[190] Pub.L. 108–21, 117 Stat. 650, S. 151, enacted April 30, 2003.
[191] Texas Department of Public Safety, *Alert Programs Brochure* (Feb. 25, 2016), https://www.dps.texas.gov/dem/Operations/alertPrgmsBrochure.pdf (last visited Aug. 15, 2018).
[192] Texas Department of Public Safety, Phone conversation (July 23, 2018).
[193] Senate Committee on Agriculture, Water, and Rural Affairs, Hearing, October 16, 2017 (oral testimony from Judge Stephen Carlton, Orange County).
[194] *Id.*
[195] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Roy Turner, Chambers County).
[196] *Id.*

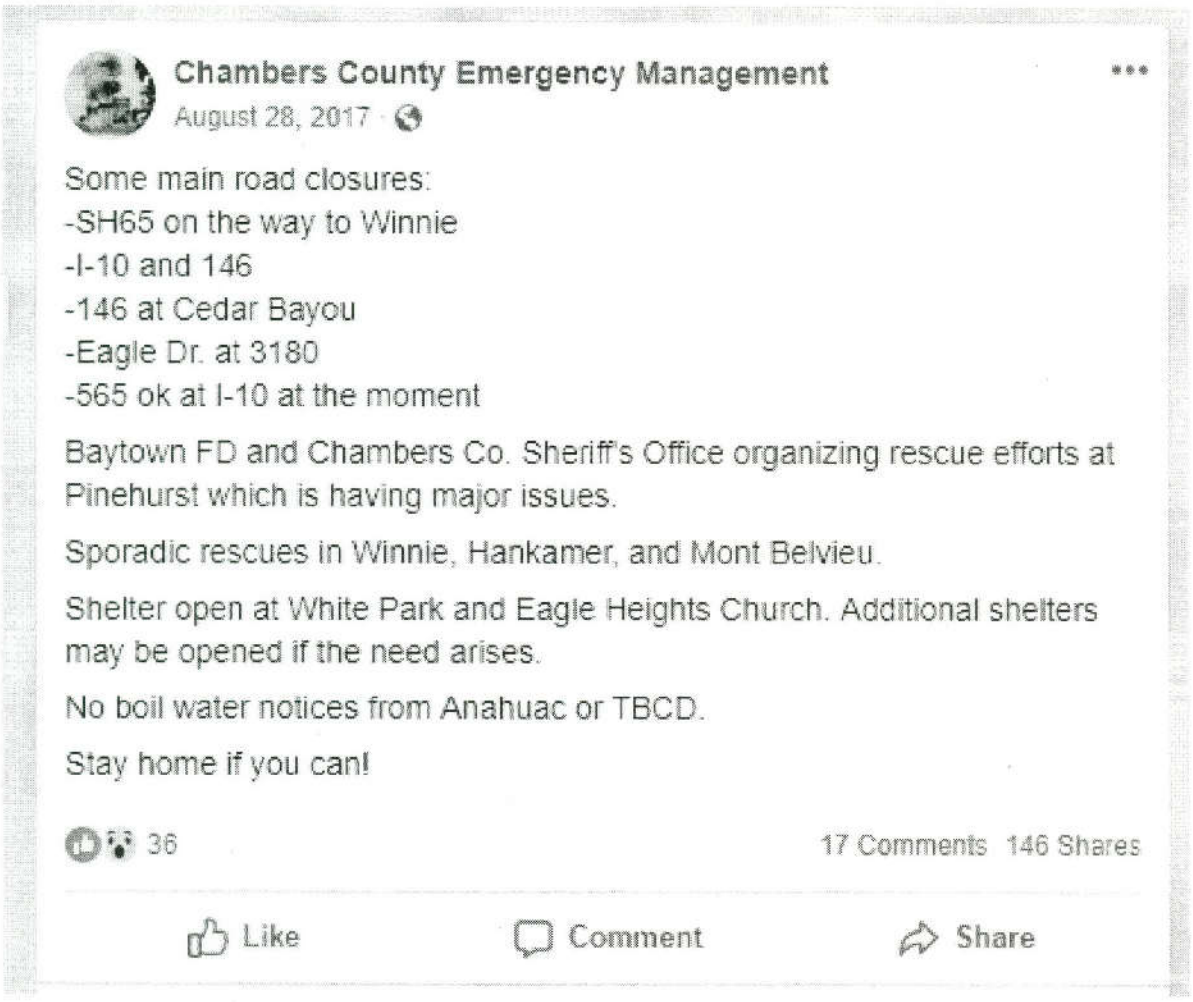

Figure 7: Social Media post from Chambers County Emergency Management, posted August 28, 2017.

In partnership between Montgomery County, the San Jacinto River Authority, the City of Conroe, and TWDB, they are working to identify the amount of water that Lake Conroe intakes and the water that travels down the San Jacinto River to get needed information to residents living downstream. The county is creating a reverse 911 system with registered cell phones to send out warnings during release episodes and to share information in a manner which is understood by the public.[197]

During the storm event, Craig Doyle explained that the San Jacinto River Authority (SJRA) was providing information in a timely manner for the emergency operations center to disseminate information.[198] According to Judge Doyle with Montgomery County, the issue was not getting the information to emergency officials or first responders but getting the warnings to the public. The emergency operations center with the county was receiving information every 15 minutes as the floodgates were adjusting their release levels at Lake Conroe. The biggest challenge was measuring the amount of rain that fell in the Lake

[197] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Craig Doyle, Montgomery County).
[198] *Id.*

Conroe basin as properties flooded the basin and those downstream. Montgomery County is working closely with SJRA for warning systems that best serve the public.[199]

Robert Mace explained that the Texas Water Development Board has been developing the TexMesonet website which is a unified weather network across the state. The agency and the National Weather Service (NWS) have partnered to find areas where the measuring devices do not already exist; and partner with local entities to distribute their data on the site. According to Robert Mace, there are 2,000 weather stations in Texas available to the public on the TexMesonet system. The agency maintains 13 of their own stations and they continue to work with NWS to fill in gaps in the system.[200] Additionally, TWDB has worked with local communities to fund reverse 911 systems.[201]

TWDB created TexasFlood.org to provide an online flood viewer that compiles gage information from across the state in real time. This information is used by local officials who can make decisions based on the river levels and rainfall totals.[202]

Chuck Finney explained that emergency communications from TDEM to the public are the responsibility of the local officials. First responders receive information from TDEM from their local emergency management representatives.[203]

According to Quiney Allen, the Texas Department of Public Safety (DPS) partners with local law enforcement agencies to coordinate the AMBER Alert system. The coordination is not at 100% participation and is voluntary. In comparison, DPS oversees highway or road electronic signage which is through the Federal Highway Administration which provides guidelines. DPS can put messaging up manually on the signs. Additionally, DriveTexas.org uses real time information to post road closures so that the public and officials can navigate roadways in the state.[204]

Recommendations

Statewide Flood Warning System

Loss of life during flooding is often the result of little warning. A flash-flood warning alerts residents that conditions are conducive to flooding, but it may not warn of a reservoir overflowing or gates opening.

It is recommended for the state to create a Flood Alert system like the AMBER alert system. Local officials would be responsible for notifying the State Operations Center (SOC) of impending conditions and the SOC will send out the warning to cellular devices. The warnings would be similar to the text message and alert tone which notifies cell phone users of an AMBER Alert. With notifications of impending conditions, the public can stay informed of conditions across the state. Additionally, a more coordinated message in

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[199] *Id.*
[200] *Id.*
[201] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Robert Mace, Texas Water Development Board).
[202] *Id.*
[203] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Chuck Finney, Texas Division of Emergency Management).
[204] Senate Committee on Agriculture, Water, and Rural Affairs Hearing, October 16, 2017 (oral testimony from Quiney Allen, Texas Department of Transportation).

layman's terms, not scientific terms, with regional data long before an anticipated release. By example, "a release of 2 foot, is expected to occur at 3 AM, this will "FLOOD" all citizens within 3 miles of the dam."

Additionally, TxDOT and TWDB should work together to integrate the road closure information and the flood map. By incorporating the two, Texans will be able to see real time road closure information as well as plan-ahead for floodwater in their path.

Appendix A

United States Geological Survey Stream Gage Operators

Entity Name
US Bureau of Reclamation - Billings, MT
US Army Corps of Engineers - Tulsa District
US Army Corps of Engineers - Fort Worth District
US Army Corps of Engineers - Galveston District
Exelon Corporation
USGS - Federal Priority Streamgages
Sabine River Compact Administration
Luminant Generation Co. LLC
Texas Department of Transportation (Austin-HQ)
Texas Water Development Board
Sabine River Authority
City of Dallas
City of Houston
City of Austin
Bexar-Medina-Atascosa Counties, Texas, Water Control and Improvement District 1
Brazos River Authority
City of Abilene
City of Corpus Christi
City of Gainesville
City of Graham
City of Lubbock
City of Nacogdoches
City of San Angelo
City of San Antonio
CPS Energy
San Antonio Water System
City of Wichita Falls
Coastal Water Authority
Colorado River Municipal Water District
Edwards Aquifer Authority
Galveston County
Greenbelt Municipal & Industrial Water Authority
Guadalupe-Blanco River Authority
Lavaca-Navidad River Authority
Lower Colorado River Authority
Lower Neches Valley Authority

Northeast Texas Municipal Water District
San Antonio River Authority
San Jacinto River Authority
Tarrant Regional Water District
Titus County, Fresh Water Supply District No. 1
Trinity River Authority of Texas
Upper Guadalupe River Authority
West Central Texas Municipal Water District
Wichita County Water Improvement District No. 2
City of Dallas, Trinity Watershed Management
Texas Parks and Wildlife Department
Canadian River Municipal Water Authority
City of Fort Worth
North Texas Municipal Water District
Red River Authority of Texas
Texas State Soil and Water Conservation Board
Somervell County Water District
City of Terrell
Dallas County Park Cities Municipal Water District
Lone Star Groundwater Conservation District
Upper Trinity Regional Water District
City of New Braunfels
City of Cleburne
Harris County Flood Control District
Bandera County River Authority and Groundwater District
Upper Brushy Creek Water Control & Improvement District
Cow Creek Groundwater Conservation District
Bistone Municipal Water Supply District
City of Sweetwater
Clearwater Underground Water Conservation District
Central Texas Groundwater Conservation District
Fort Bend County Drainage District
City of College Station
City of Laredo
Wells Branch Municipal Utility District
Franklin County Water District
The Woodlands Township

* Information provided by USGS Texas Water Science Center, July 25, 2018.

Appendix B

Texas Reservoirs by Entity of Jurisdiction

Name	Entity	Location
Addicks Reservoir and Dam	USACE	Harris and Waller Counties
Lake Aquilla	USACE	Hill County
Lake Bardwell	USACE	Ellis County
Barker Reservoir and Dam	USACE	Harris County
Lake Belton	USACE	Bell and Coryell Counties
Lake Benbrook	USACE	Tarrant County
Lake Bridgeport	Tarrant Regional Water District	Wise County
Lake Buchanan	Lower Colorado River Authority	Burnet and Llano Counties
Lake Caddo	Northeast Texas Municipal Water District	Harrison and Marion County
Lake Canyon	USACE	Comal County
Cedar Creek Reservoir	Tarrant Regional Water District	Henderson and Kaufman Counties
Choke Canyon Reservoir	City of Corpus Christi and Nueces River Authority	Live Oak County
Cleto Creek Reservoir	American Electric Power	Victoria
Lake Conroe	San Jacinto River Authority	Walker and Montgomery Counties
Cooper Lake	USACE	Delta and Hopkins Counties
Lake Corpus Christi	City of Corpus Christi	Live Oak, San Patricio, and Jim Wells Counties
Eagle Mountain Lake	Tarrant Regional Water District	Tarrant County
Ferrell's Bridge Dam - Lake O'The Pines	USACE	Marion, Harrison, Upshur, Morris and Camp Counties
Lake Granbury	Hood County	Hood County
Granger Dam and Lake	USACE	Williamson County
Lake Grapevine	USACE	Tarrant and Denton Counties
Hords Creek Lake	USACE	Coleman County
Lake Houston	City of Houston and Coastal Water Authority	Harris County
Hubbard Creek Reservoir	West Central Texas Municipal Water District	Stephens County
J.B. Thomas Reservoir	Colorado River Municipal Water District	Scurry County
Joe Pool Lake	USACE	Tarrant, Dallas and Ellis Counties

Lake Kemp	City of Wichita Falls and Wichita County Water Improvement District No.2	Baylor County
Lake Lavon	USACE	Collin County
Lake Lewisville	USACE	Denton County
Lake Limestone	Brazos River Authority	Leon and Robertson Counties
Lake Livingston	Trinity River Authority, City of Houston	Polk, San Jacinto, Trinity and Walker Counties
North San Gabriel Dam - Lake Georgetown	USACE	Williamson County
O.C. Fisher Dam and Lake	USACE	Tom Green County
O.H. Ivie Reservoir	Colorado River Municipal Water District	Coleman, Concho, and Runnels Counties
Lake Palestine	Upper Neches River Municipal Water Authority	Anderson, Henderson, Smith and Cherokee Counties
Possum Kingdom Lake	Brazos River Authority	Palo Pinto County
Proctor Lake	USACE	Comanche County
Lake Ray Hubbard	City of Dallas, Dallas Water Utilities	Dallas, Kaufman, Collin, and Rockwall Counties
Ray Roberts Lake	USACE	Denton, Cooke, and Grayson Counties
Richland Chambers Reservoir	Tarrant Regional Water District	Navarro and Freestone Counties
Sam Rayburn Dam and Reservoir	USACE	Angelina, Nacogdoches, San Augustine, Jasper, and Sabine counties
Lake Somerville	USACE	Burleson, Washington, and Lee Counties
Stillhouse Hollow Lake	USACE	Bell County
Lake Texana	Lavaca-Navidad River Authority	Jackson County
Toledo Bend Reservoir	Sabine River Authorities (Texas and Louisiana)	Newton, Sabine, Shelby, and Panola Counties
Town Bluff Dam - B.A. Steinhagen Lake	USACE	Tyler and Jasper Counties
Lake Travis and Mansfield Dam	Lower Colorado River Authority	Burnet and Travis Counties
Twin Buttes Reservoir	USBR	Tom Green County
Lake Waco	USACE	McLennan County
Lake Whitney	USACE	Bosque and Hill Counties
Wright Patman Dam and Lake	USACE	Bowie and Cass Counties

* Information provided by USACE, August 6, 2018; United States Army Corps of Engineers, *Army Corps Report: Texas Floods of 2015-2016*, ftp://ftpext.usgs.gov/pub/cr/tx/austin/lfahlquist/2015%20Flood%20Report%20-%20USACE.pdf. Accessed August 7, 2018.

Appendix C

Texas State Soil and Water Conservation Board Dams in the Flood Control Program

DAM_NAME	COUNTY	YEAR BUILT	SERVICE LIFE	River_Basin*	Year Eval. Life Expired
A.H. Bywaters, Jr.	Lamar	1984	25	Sulphur	2009
Alamo Arroyo WS NRCS Site 1	Hudspeth	1960	50	Rio Grande	2010
Alamo Arroyo WS NRCS Site 3	Hudspeth	1960	50	Rio Grande	2010
Anderson & Mclendon	Red River	1981	25		2006
Aquilla-Hackberry Creek NRCS Gss 14-1	Hill	1975	25	Brazos	2000
Aquilla-Hackberry Creek NRCS Gss 15-1	Hill	1976	25	Brazos	2001
Aquilla-Hackberry Creek NRCS Gss 20-1	Hill	1976	25	Brazos	2001
Aquilla-Hackberry Creek NRCS Site 10	Hill	1985	100	Brazos	2085
Aquilla-Hackberry Creek NRCS Site 15	Hill	1978	100	Brazos	2078
Aquilla-Hackberry Creek NRCS Site 17	Hill	1979	100	Brazos	2079
Aquilla-Hackberry Creek NRCS Site 19A	Hill	1980	100	Brazos	2080
Aquilla-Hackberry Creek NRCS Site 2	Hill	1978	100	Brazos	2078
Aquilla-Hackberry Creek NRCS Site 20	Hill	1977	100	Brazos	2077
Aquilla-Hackberry Creek NRCS Site 21A	Hill	1982	100	Brazos	2082
Aquilla-Hackberry Creek NRCS Site 23A	Hill	1988	100	Brazos	2088
Aquilla-Hackberry Creek NRCS Site 3	Hill	1978	100	Brazos	2078
Aquilla-Hackberry Creek NRCS Site 6	Hill	1979	100	Brazos	2079
Aquilla-Hackberry Creek NRCS Site 7	Hill	1979	100	Brazos	2079
Aquilla-Hackberry Creek NRCS Site 8	Hill	1978	100	Brazos	2078
Aquilla-Hackberry Creek NRCS Site 9	Hill	1979	100	Brazos	2079

Attoyac Bayou WS NRCS Site 11	Shelby	1971	100	Neches	2071
Attoyac Bayou WS NRCS Site 12	Shelby	1976	100	Neches	2076
Attoyac Bayou WS NRCS Site 15	Shelby	1976	100	Neches	2076
Attoyac Bayou WS NRCS Site 18A	Nacogdoches	1971	100	Neches	2071
Attoyac Bayou WS NRCS Site 2	Rusk	1972	100	Neches	2072
Attoyac Bayou WS NRCS Site 20	Nacogdoches	1977	100	Neches	2077
Attoyac Bayou WS NRCS Site 21	Nacogdoches	1977	100	Neches	2077
Attoyac Bayou WS NRCS Site 23A	Nacogdoches	2006	100	Neches	2106
Attoyac Bayou WS NRCS Site 3	Rusk	1973	100	Neches	2073
Attoyac Bayou WS NRCS Site 5	Rusk	1980	100	Neches	2080
Attoyac Bayou WS NRCS Site 7	Shelby	1974	100	Neches	2074
Attoyac Bayou WS NRCS Site 8	Shelby	1974	100	Neches	2074
Attoyac Bayou WS NRCS Site 9	Shelby	1980	100	Neches	2080
Auds Creek WS NRCS Site 1	Lamar	1967	50	Sulphur	2017
Auds Creek WS NRCS Site 10	Lamar	1967	50	Sulphur	2017
Auds Creek WS NRCS Site 11	Lamar	1965	50	Sulphur	2015
Auds Creek WS NRCS Site 12	Lamar	1960	50	Sulphur	2010
Auds Creek WS NRCS Site 13	Lamar	1960	50	Sulphur	2010
Auds Creek WS NRCS Site 14	Lamar	1960	50	Sulphur	2010
Auds Creek WS NRCS Site 2	Lamar	1960	50	Sulphur	2010
Auds Creek WS NRCS Site 3	Lamar	1961	50	Sulphur	2011
Auds Creek WS NRCS Site 4	Lamar	1960	50	Sulphur	2010
Auds Creek WS NRCS Site 5	Lamar	1965	50	Sulphur	2015
Auds Creek WS NRCS Site 6A	Lamar	1965	50	Sulphur	2015
Auds Creek WS NRCS Site 7	Lamar	1965	50	Sulphur	2015
Auds Creek WS NRCS Site 8A	Lamar	1964	50	Sulphur	2014
Bennett Creek NRCS Site 1	Mills	1973	100	Brazos	2073
Bennett Creek NRCS Site 2	Mills	1973	100	Brazos	2073
Bennett Creek NRCS Site 3	Mills	1976	100	Brazos	2076
Bennett Creek NRCS Site 4	Mills	1974	100	Brazos	2074
Bennett Gss	Washington	1982	25		2007

Big Creek WS NRCS Site 5	Brazos	1968	100	Brazos	2068
Big Creek WS NRCS Site 6	Brazos	1974	100	Brazos	2074
Big Sandy Creek WS NRCS Gss 104	Montague	1990	25	Trinity	2015
Big Sandy Creek WS NRCS Gss 108	Montague	1990	25	Trinity	2015
Big Sandy Creek WS NRCS Gss 110	Wise	1990	25	Trinity	2015
Big Sandy Creek WS NRCS Gss 125A	Wise	1986	25	Trinity	2011
Big Sandy Creek WS NRCS Site 10	Montague	1957	50	Trinity	2007
Big Sandy Creek WS NRCS Site 11	Montague	1957	50	Trinity	2007
Big Sandy Creek WS NRCS Site 12	Montague	1958	50	Trinity	2008
Big Sandy Creek WS NRCS Site 13	Montague	1958	50	Trinity	2008
Big Sandy Creek WS NRCS Site 13A	Montague	1980	50	Trinity	2030
Big Sandy Creek WS NRCS Site 13C	Montague	1980	50	Trinity	2030
Big Sandy Creek WS NRCS Site 14	Montague	1958	50	Trinity	2008
Big Sandy Creek WS NRCS Site 14A	Wise	1997	50	Trinity	2047
Big Sandy Creek WS NRCS Site 18	Montague	1967	50	Trinity	2017
Big Sandy Creek WS NRCS Site 1A	Clay	1984	50	Trinity	2034
Big Sandy Creek WS NRCS Site 1B	Clay	1984	50	Trinity	2034
Big Sandy Creek WS NRCS Site 2	Clay	1966	50	Trinity	2016
Big Sandy Creek WS NRCS Site 20	Montague	1967	50	Trinity	2017
Big Sandy Creek WS NRCS Site 22B	Montague	1982	50	Trinity	2032
Big Sandy Creek WS NRCS Site 23A	Wise	1984	50	Trinity	2034
Big Sandy Creek WS NRCS Site 24A	Wise	1988	50	Trinity	2038
Big Sandy Creek WS NRCS Site 24B	Wise	1983	50	Trinity	2033
Big Sandy Creek WS NRCS Site 24C	Wise	2006	50	Trinity	2056

Big Sandy Creek WS NRCS Site 24D	Wise	1989	50	Trinity	2039
Big Sandy Creek WS NRCS Site 25A	Wise	1988	50	Trinity	2038
Big Sandy Creek WS NRCS Site 26	Wise	1984	50	Trinity	2034
Big Sandy Creek WS NRCS Site 27	Wise	1997	50	Trinity	2047
Big Sandy Creek WS NRCS Site 28	Wise	1989	50	Trinity	2039
Big Sandy Creek WS NRCS Site 32	Wise	1988	50	Trinity	2038
Big Sandy Creek WS NRCS Site 33	Wise	2000	50	Trinity	2050
Big Sandy Creek WS NRCS Site 35	Wise	1999	50	Trinity	2049
Big Sandy Creek WS NRCS Site 36	Wise	1983	50	Trinity	2033
Big Sandy Creek WS NRCS Site 37	Wise	1995	50	Trinity	2045
Big Sandy Creek WS NRCS Site 4	Clay	1966	50	Trinity	2016
Big Sandy Creek WS NRCS Site 43	Wise	1981	50	Trinity	2031
Big Sandy Creek WS NRCS Site 44	Wise	1981	50	Trinity	2031
Big Sandy Creek WS NRCS Site 5A	Clay	1968	50	Trinity	2018
Big Sandy Creek WS NRCS Site 5B	Montague	1966	50	Trinity	2016
Big Sandy Creek WS NRCS Site 6	Montague	1971	50	Trinity	2021
Bill Jones	Red River	1981	25		2006
Blanket Creek WS NRCS Site 1	Brown	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 10	Brown	1966	100	Colorado	2066
Blanket Creek WS NRCS Site 11	Brown	1972	100	Colorado	2072
Blanket Creek WS NRCS Site 12	Comanche	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 13	Comanche	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 14	Brown	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 15	Brown	1965	100	Colorado	2065

Blanket Creek WS NRCS Site 16	Brown	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 17A-1	Mills	1969	100	Colorado	2069
Blanket Creek WS NRCS Site 18	Mills	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 19	Mills	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 20	Mills	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 2-A	Comanche	1969	100	Colorado	2069
Blanket Creek WS NRCS Site 3	Brown	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 4	Brown	1965	100	Colorado	2065
Blanket Creek WS NRCS Site 6	Brown	1966	100	Colorado	2066
Blanket Creek WS NRCS Site 7	Brown	1966	100	Colorado	2066
Blanket Creek WS NRCS Site 8	Brown	1972	100	Colorado	2072
Blanket Creek WS NRCS Site 9	Brown	1969	100	Colorado	2069
Bosque Bottomlands WS NRCS Site 1	Bosque	1980	100	Brazos	2080
Bosque Bottomlands WS NRCS Site 2	Bosque	1980	100	Brazos	2080
Brady Creek WS NRCS Site 1	McCulloch	1956	50	Colorado	2006
Brady Creek WS NRCS Site 10	McCulloch	1957	50	Colorado	2007
Brady Creek WS NRCS Site 11	McCulloch	1958	50	Colorado	2008
Brady Creek WS NRCS Site 12	McCulloch	1959	50	Colorado	2009
Brady Creek WS NRCS Site 13	McCulloch	1957	50	Colorado	2007
Brady Creek WS NRCS Site 14	McCulloch	1956	50	Colorado	2006
Brady Creek WS NRCS Site 15	McCulloch	1959	50	Colorado	2009
Brady Creek WS NRCS Site 16	Concho	1959	50	Colorado	2009
Brady Creek WS NRCS Site 17	McCulloch	1962	50	Colorado	2012
Brady Creek WS NRCS Site 18A	Menard	1961	50	Colorado	2011
Brady Creek WS NRCS Site 19	Concho	1958	50	Colorado	2008
Brady Creek WS NRCS Site 20	Concho	1959	50	Colorado	2009
Brady Creek WS NRCS Site 21	Concho	1957	50	Colorado	2007
Brady Creek WS NRCS Site 22	Concho	1957	50	Colorado	2007
Brady Creek WS NRCS Site 23	Concho	1957	50	Colorado	2007
Brady Creek WS NRCS Site 24	Concho	1959	50	Colorado	2009

Brady Creek WS NRCS Site 25	Concho	1959	50	Colorado	2009
Brady Creek WS NRCS Site 26	Concho	1959	50	Colorado	2009
Brady Creek WS NRCS Site 27	Concho	1956	50	Colorado	2006
Brady Creek WS NRCS Site 28	Concho	1957	50	Colorado	2007
Brady Creek WS NRCS Site 29	Concho	1955	50	Colorado	2005
Brady Creek WS NRCS Site 30	Concho	1959	50	Colorado	2009
Brady Creek WS NRCS Site 31	Concho	1958	50	Colorado	2008
Brady Creek WS NRCS Site 32	Concho	1958	50	Colorado	2008
Brady Creek WS NRCS Site 33	Concho	1958	50	Colorado	2008
Brady Creek WS NRCS Site 34	Concho	1955	50	Colorado	2005
Brady Creek WS NRCS Site 35	Concho	1957	50	Colorado	2007
Brady Creek WS NRCS Site 36	Concho	1955	50	Colorado	2005
Brady Creek WS NRCS Site 37	Concho	1955	50	Colorado	2005
Brady Creek WS NRCS Site 38	Concho	1957	50	Colorado	2007
Brady Creek WS NRCS Site 39	McCulloch	1955	50	Colorado	2005
Brady Creek WS NRCS Site 4	McCulloch	1957	50	Colorado	2007
Brady Creek WS NRCS Site 40	McCulloch	1955	50	Colorado	2005
Brady Creek WS NRCS Site 41	McCulloch	1955	50	Colorado	2005
Brady Creek WS NRCS Site 43A	McCulloch	1960	50	Colorado	2010
Brady Creek WS NRCS Site 43B	McCulloch	1960	50	Colorado	2010
Brady Creek WS NRCS Site 44	McCulloch	1955	50	Colorado	2005
Brady Creek WS NRCS Site 45	McCulloch	1956	50	Colorado	2006
Brady Creek WS NRCS Site 46	McCulloch	1956	50	Colorado	2006
Brady Creek WS NRCS Site 5	McCulloch	1958	50	Colorado	2008
Brady Creek WS NRCS Site 6	McCulloch	1958	50	Colorado	2008
Brady Lake Dam	McCulloch	1963	50	Colorado	2013
Brainard Dam	Hemphill	1982	25	Canadian	2007
Brown-Mullin WS NRCS Site 1	Mills	1972	100	Colorado	2072
Brown-Mullin WS NRCS Site 2	Mills	1973	100	Colorado	2073
Brown-Mullin WS NRCS Site 3	Mills	1972	100	Colorado	2072
Brown-Mullin WS NRCS Site 4	Mills	1973	100	Colorado	2073
Brown-Mullin WS NRCS Site 5A	Mills	1973	100	Colorado	2073
Brown-Mullin WS NRCS Site 6	Mills	1972	100	Colorado	2072
Brown-Mullin WS NRCS Site 7	Mills	1972	100	Colorado	2072

Brownwood Laterals WS NRCS Site 1	Brown	1977	100	Colorado	2077
Brownwood Laterals WS NRCS Site 10A	Brown	1970	100	Colorado	2070
Brownwood Laterals WS NRCS Site 11	Brown	1968	100	Colorado	2068
Brownwood Laterals WS NRCS Site 13	Brown	1968	100	Colorado	2068
Brownwood Laterals WS NRCS Site 14	Brown	1968	100	Colorado	2068
Brownwood Laterals WS NRCS Site 15	Brown	1968	100	Colorado	2068
Brownwood Laterals WS NRCS Site 16A	Brown	1968	100	Colorado	2068
Brownwood Laterals WS NRCS Site 17	Brown	1968	100	Colorado	2068
Brownwood Laterals WS NRCS Site 19	Brown	1966	100	Colorado	2066
Brownwood Laterals WS NRCS Site 20	Brown	1966	100	Colorado	2066
Brownwood Laterals WS NRCS Site 21	Brown	1966	100	Colorado	2066
Brownwood Laterals WS NRCS Site 22	Brown	1973	100	Colorado	2073
Brownwood Laterals WS NRCS Site 23	Brown	1972	100	Colorado	2072
Brownwood Laterals WS NRCS Site 25	Brown	1972	100	Colorado	2072
Brownwood Laterals WS NRCS Site 26A-1	Brown	1977	100	Colorado	2077
Brownwood Laterals WS NRCS Site 2A	Brown	1975	100	Colorado	2075
Brownwood Laterals WS NRCS Site 2Rev.	Brown	1978	100	Colorado	2078
Brownwood Laterals WS NRCS Site 3	Brown	1973	100	Colorado	2073
Brownwood Laterals WS NRCS Site 4A	Brown	1975	100	Colorado	2075
Brownwood Laterals WS NRCS Site 4B	Brown	1975	100	Colorado	2075
Brownwood Laterals WS NRCS Site 6	Brown	1971	100	Colorado	2071
Brownwood Laterals WS NRCS Site 8	Brown	1968	100	Colorado	2068
Calaveras Creek WS NRCS Site 10	Bexar	1958	50	San Antonio	2008

Calaveras Creek WS NRCS Site 3	Bexar	1954	50	San Antonio	2004
Calaveras Creek WS NRCS Site 5	Bexar	1954	50	San Antonio	2004
Calaveras Creek WS NRCS Site 6	Bexar	1956	50	San Antonio	2006
Calaveras Creek WS NRCS Site 7	Bexar	1956	50	San Antonio	2006
Calaveras Creek WS NRCS Site 8	Bexar	1954	50	San Antonio	2004
Calaveras Creek WS NRCS Site 9	Bexar	1955	50	San Antonio	2005
Camp Rice Arroyo WS NRCS Site 1	Hudspeth	1963	50	Rio Grande	2013
Campbell Dam	Fannin	1990	25	Sulphur	2015
Caney Creek WS NRCS Site 1	Grayson	1975	50	Red	2025
Caney Creek WS NRCS Site 10	Fannin	1967	50	Red	2017
Caney Creek WS NRCS Site 11	Fannin	1968	50	Red	2018
Caney Creek WS NRCS Site 12	Fannin	1967	50	Red	2017
Caney Creek WS NRCS Site 13	Fannin	1967	50	Red	2017
Caney Creek WS NRCS Site 14	Fannin	1967	50	Red	2017
Caney Creek WS NRCS Site 15	Fannin	1967	50	Red	2017
Caney Creek WS NRCS Site 2	Fannin	1969	50	Red	2019
Caney Creek WS NRCS Site 3A	Fannin	2008	50	Red	2058
Caney Creek WS NRCS Site 5	Fannin	1966	50	Red	2016
Caney Creek WS NRCS Site 7	Fannin	1975	50	Red	2025
Caney Creek WS NRCS Site 8	Fannin	1966	50	Red	2016
Castleman Creek WS NRCS Site 1	McLennan	1970	100	Brazos	2070
Castleman Creek WS NRCS Site 2	McLennan	1970	100	Brazos	2070
Castleman Creek WS NRCS Site 3	McLennan	1971	100	Brazos	2071
Castleman Creek WS NRCS Site 4	McLennan	1975	100	Brazos	2075
Castleman Creek WS NRCS Site 6	McLennan	1971	100	Brazos	2071
Castleman Creek WS NRCS Site 7	McLennan	1975	100	Brazos	2075

Cedar Creek WS NRCS Site 101	Van Zandt	1969	50	Trinity	2019
Cedar Creek WS NRCS Site 102	Van Zandt	1969	50	Trinity	2019
Cedar Creek WS NRCS Site 103	Van Zandt	1968	50	Trinity	2018
Cedar Creek WS NRCS Site 104	Van Zandt	1968	50	Trinity	2018
Cedar Creek WS NRCS Site 105	Van Zandt	1968	50	Trinity	2018
Cedar Creek WS NRCS Site 105A	Van Zandt	1967	50	Trinity	2017
Cedar Creek WS NRCS Site 109	Van Zandt	1974	50	Trinity	2024
Cedar Creek WS NRCS Site 11	Rockwall	1967	50	Trinity	2017
Cedar Creek WS NRCS Site 110	Van Zandt	1968	50	Trinity	2018
Cedar Creek WS NRCS Site 111F	Van Zandt	1984	50	Trinity	2034
Cedar Creek WS NRCS Site 113	Van Zandt	1974	50	Trinity	2024
Cedar Creek WS NRCS Site 114	Van Zandt	1974	50	Trinity	2024
Cedar Creek WS NRCS Site 117	Kaufman	1977	50	Trinity	2027
Cedar Creek WS NRCS Site 120	Kaufman	1976	50	Trinity	2026
Cedar Creek WS NRCS Site 121A	Kaufman	1976	50	Trinity	2026
Cedar Creek WS NRCS Site 122A	Kaufman	1989	50	Trinity	2039
Cedar Creek WS NRCS Site 123	Van Zandt	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 124	Van Zandt	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 126	Van Zandt	1965	50	Trinity	2015
Cedar Creek WS NRCS Site 127	Van Zandt	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 128	Van Zandt	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 129	Van Zandt	1965	50	Trinity	2015
Cedar Creek WS NRCS Site 13	Rockwall	1967	50	Trinity	2017
Cedar Creek WS NRCS Site 130A	Van Zandt	1966	50	Trinity	2016

Cedar Creek WS NRCS Site 130B	Kaufman	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 131	Van Zandt	1965	50	Trinity	2015
Cedar Creek WS NRCS Site 134	Van Zandt	1965	50	Trinity	2015
Cedar Creek WS NRCS Site 135A	Van Zandt	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 135B	Van Zandt	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 135C	Van Zandt	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 136	Van Zandt	1965	50	Trinity	2015
Cedar Creek WS NRCS Site 137	Van Zandt	1965	50	Trinity	2015
Cedar Creek WS NRCS Site 138	Van Zandt	1968	50	Trinity	2018
Cedar Creek WS NRCS Site 139	Van Zandt	1968	50	Trinity	2018
Cedar Creek WS NRCS Site 140	Van Zandt	1968	50	Trinity	2018
Cedar Creek WS NRCS Site 143A	Henderson	1984	50	Trinity	2034
Cedar Creek WS NRCS Site 14A	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 15	Kaufman	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 16	Rockwall	1969	50	Trinity	2019
Cedar Creek WS NRCS Site 16A	Rockwall	1969	50	Trinity	2019
Cedar Creek WS NRCS Site 18	Kaufman	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 19	Kaufman	1973	50	Trinity	2023
Cedar Creek WS NRCS Site 1A	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 1B	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 2	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 3	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 31	Kaufman	1975	50	Trinity	2025
Cedar Creek WS NRCS Site 32	Kaufman	1977	50	Trinity	2027
Cedar Creek WS NRCS Site 33	Kaufman	1975	50	Trinity	2025
Cedar Creek WS NRCS Site 4	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 43A	Kaufman	1982	50	Trinity	2032
Cedar Creek WS NRCS Site 46 Rev	Kaufman	1982	50	Trinity	2032

Cedar Creek WS NRCS Site 47A	Kaufman	1986	50	Trinity	2036
Cedar Creek WS NRCS Site 5	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 50C	Kaufman	1979	50	Trinity	2029
Cedar Creek WS NRCS Site 55B	Kaufman	1979	50	Trinity	2029
Cedar Creek WS NRCS Site 57	Kaufman	1962	50	Trinity	2012
Cedar Creek WS NRCS Site 58	Kaufman	1962	50	Trinity	2012
Cedar Creek WS NRCS Site 59	Kaufman	1962	50	Trinity	2012
Cedar Creek WS NRCS Site 6	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 60	Kaufman	1955	50	Trinity	2005
Cedar Creek WS NRCS Site 61	Kaufman	1955	50	Trinity	2005
Cedar Creek WS NRCS Site 63	Kaufman	1975	50	Trinity	2025
Cedar Creek WS NRCS Site 64R	Kaufman	1988	50	Trinity	2038
Cedar Creek WS NRCS Site 65	Kaufman	1975	50	Trinity	2025
Cedar Creek WS NRCS Site 66	Kaufman	1975	50	Trinity	2025
Cedar Creek WS NRCS Site 67A	Kaufman	1989	50	Trinity	2039
Cedar Creek WS NRCS Site 68	Kaufman	1975	50	Trinity	2025
Cedar Creek WS NRCS Site 68A	Kaufman	1982	50	Trinity	2032
Cedar Creek WS NRCS Site 69	Kaufman	1974	50	Trinity	2024
Cedar Creek WS NRCS Site 7	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 70	Kaufman	1974	50	Trinity	2024
Cedar Creek WS NRCS Site 71	Kaufman	1974	50	Trinity	2024
Cedar Creek WS NRCS Site 72	Kaufman	1979	50	Trinity	2029
Cedar Creek WS NRCS Site 73Rev	Kaufman	1980	50	Trinity	2030
Cedar Creek WS NRCS Site 76	Kaufman	1962	50	Trinity	2012
Cedar Creek WS NRCS Site 77A	Kaufman	1962	50	Trinity	2012
Cedar Creek WS NRCS Site 82	Kaufman	1982	50	Trinity	2032
Cedar Creek WS NRCS Site 83	Kaufman	1974	50	Trinity	2024
Cedar Creek WS NRCS Site 84	Kaufman	1974	50	Trinity	2024
Cedar Creek WS NRCS Site 85	Kaufman	1974	50	Trinity	2024
Cedar Creek WS NRCS Site 87A	Kaufman	1969	50	Trinity	2019
Cedar Creek WS NRCS Site 88	Kaufman	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 89	Kaufman	1966	50	Trinity	2016
Cedar Creek WS NRCS Site 9	Rockwall	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 90	Kaufman	1967	50	Trinity	2017

Cedar Creek WS NRCS Site 92	Kaufman	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 94B	Kaufman	1979	50	Trinity	2029
Cedar Creek WS NRCS Site 94C	Kaufman	1977	50	Trinity	2027
Cedar Creek WS NRCS Site 95A	Kaufman	1971	50	Trinity	2021
Cedar Creek WS NRCS Site 96	Kaufman	1969	50	Trinity	2019
Chambers Creek WS NRCS Gss 12	Johnson	1989	25	Trinity	2014
Chambers Creek WS NRCS Site 1	Ellis	1957	50	Trinity	2007
Chambers Creek WS NRCS Site 10	Ellis	1959	50		2009
Chambers Creek WS NRCS Site 100	Ellis	1964	50	Trinity	2014
Chambers Creek WS NRCS Site 101A	Navarro	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 101C	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 102	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 103B	Navarro	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 104A	Navarro	1965	50	Trinity	2015
Chambers Creek WS NRCS Site 104B	Navarro	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 105A	Navarro	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 105B	Navarro	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 106	Ellis	1975	50	Trinity	2025
Chambers Creek WS NRCS Site 107	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 108	Ellis	1959	50	Trinity	2009
Chambers Creek WS NRCS Site 108A	Ellis	1981	50	Trinity	2031
Chambers Creek WS NRCS Site 109	Ellis	1959	50	Trinity	2009
Chambers Creek WS NRCS Site 11	Ellis	1959	50		2009
Chambers Creek WS NRCS Site 110	Ellis	1959	50	Trinity	2009

Chambers Creek WS NRCS Site 111&112	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 113	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 115	Ellis	1959	50	Trinity	2009
Chambers Creek WS NRCS Site 116	Ellis	1959	50	Trinity	2009
Chambers Creek WS NRCS Site 117	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 118	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 119A	Navarro	1968	50	Trinity	2018
Chambers Creek WS NRCS Site 119B	Navarro	1968	50	Trinity	2018
Chambers Creek WS NRCS Site 12	Ellis	1959	50		2009
Chambers Creek WS NRCS Site 120A	Navarro	1983	50	Trinity	2033
Chambers Creek WS NRCS Site 120B	Navarro	1983	50	Trinity	2033
Chambers Creek WS NRCS Site 121	Navarro	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 121A	Ellis	1963	50	Trinity	2013
Chambers Creek WS NRCS Site 121C	Navarro	1962	50	Trinity	2012
Chambers Creek WS NRCS Site 121D-1	Navarro	1962	50	Trinity	2012
Chambers Creek WS NRCS Site 121D-2	Navarro	1962	50	Trinity	2012
Chambers Creek WS NRCS Site 121E	Navarro	1962	50	Trinity	2012
Chambers Creek WS NRCS Site 122A	Navarro	1970	50	Trinity	2020
Chambers Creek WS NRCS Site 122B	Navarro	1970	50	Trinity	2020
Chambers Creek WS NRCS Site 123A	Navarro	1970	50	Trinity	2020
Chambers Creek WS NRCS Site 123B	Navarro	1970	50	Trinity	2020
Chambers Creek WS NRCS Site 124	Navarro	1963	50	Trinity	2013
Chambers Creek WS NRCS Site 124A-1	Navarro	1976	50	Trinity	2026

Chambers Creek WS NRCS Site 124B	Navarro	1981	50	Trinity	2031
Chambers Creek WS NRCS Site 124C	Navarro	1989	50	Trinity	2039
Chambers Creek WS NRCS Site 125	Ellis	1966	50	Trinity	2016
Chambers Creek WS NRCS Site 126	Ellis	1965	50	Trinity	2015
Chambers Creek WS NRCS Site 127A	Navarro	1976	50	Trinity	2026
Chambers Creek WS NRCS Site 127B	Navarro	1987	50	Trinity	2037
Chambers Creek WS NRCS Site 128	Navarro	1962	50	Trinity	2012
Chambers Creek WS NRCS Site 129	Navarro	1962	50	Trinity	2012
Chambers Creek WS NRCS Site 13	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 130B	Navarro	1983	50	Trinity	2033
Chambers Creek WS NRCS Site 131Rev	Navarro	1980	50	Trinity	2030
Chambers Creek WS NRCS Site 136	Navarro	1975	50	Trinity	2025
Chambers Creek WS NRCS Site 136A	Navarro	1983	50	Trinity	2033
Chambers Creek WS NRCS Site 139	Navarro	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 14	Ellis	1959	50		2009
Chambers Creek WS NRCS Site 140	Navarro	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 141	Navarro	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 15	Ellis	1959	50		2009
Chambers Creek WS NRCS Site 16	Ellis	1959	50	Trinity	2009
Chambers Creek WS NRCS Site 17	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 19	Ellis	1957	50	Trinity	2007
Chambers Creek WS NRCS Site 20	Ellis	1957	50	Trinity	2007
Chambers Creek WS NRCS Site 20A	Ellis	1988	50	Trinity	2038

Chambers Creek WS NRCS Site 23	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 24	Ellis	1975	50	Trinity	2025
Chambers Creek WS NRCS Site 29	Ellis	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 2A	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 2B	Ellis	1960	50		2010
Chambers Creek WS NRCS Site 2F	Ellis	1960	50		2010
Chambers Creek WS NRCS Site 3	Ellis	1957	50		2007
Chambers Creek WS NRCS Site 30	Johnson	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 31	Johnson	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 32	Johnson	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 33	Johnson	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 33A	Johnson	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 34	Johnson	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 35	Johnson	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 36	Johnson	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 37	Johnson	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 38	Johnson	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 4	Ellis	1958	50		2008
Chambers Creek WS NRCS Site 42	Johnson	1966	50	Trinity	2016
Chambers Creek WS NRCS Site 43A	Johnson	1966	50	Trinity	2016
Chambers Creek WS NRCS Site 44	Johnson	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 44A	Johnson	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 46A	Johnson	1989	50	Trinity	2039

Chambers Creek WS NRCS Site 49A	Ellis	1976	50	Trinity	2026
Chambers Creek WS NRCS Site 5	Ellis	1958	50		2008
Chambers Creek WS NRCS Site 53	Ellis	1968	50	Trinity	2018
Chambers Creek WS NRCS Site 54	Ellis	1968	50	Trinity	2018
Chambers Creek WS NRCS Site 55	Ellis	1957	50	Trinity	2007
Chambers Creek WS NRCS Site 56	Ellis	1969	50	Trinity	2019
Chambers Creek WS NRCS Site 57	Johnson	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 58	Johnson	1963	50	Trinity	2013
Chambers Creek WS NRCS Site 59	Johnson	1963	50	Trinity	2013
Chambers Creek WS NRCS Site 6	Ellis	1958	50		2008
Chambers Creek WS NRCS Site 60	Johnson	1963	50	Trinity	2013
Chambers Creek WS NRCS Site 61	Johnson	1963	50	Trinity	2013
Chambers Creek WS NRCS Site 61A	Johnson	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 62	Johnson	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 63	Johnson	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 64A	Johnson	1965	50	Trinity	2015
Chambers Creek WS NRCS Site 65A	Hill	1974	50	Trinity	2024
Chambers Creek WS NRCS Site 67A	Hill	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 67B	Hill	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 68	Hill	1974	50	Trinity	2024
Chambers Creek WS NRCS Site 7	Ellis	1958	50		2008
Chambers Creek WS NRCS Site 72	Hill	1963	50	Trinity	2013
Chambers Creek WS NRCS Site 72A	Hill	1963	50	Trinity	2013

Chambers Creek WS NRCS Site 74	Hill	1963	50	Trinity	2013
Chambers Creek WS NRCS Site 75B	Ellis	1972	50	Trinity	2022
Chambers Creek WS NRCS Site 75C	Ellis	1984	50	Trinity	2034
Chambers Creek WS NRCS Site 77	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 78	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 79A	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 79B	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 79D	Ellis	1976	50	Trinity	2026
Chambers Creek WS NRCS Site 8	Ellis	1959	50		2009
Chambers Creek WS NRCS Site 80	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 81	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 82	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 83	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 84	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 85B	Ellis	1968	50	Trinity	2018
Chambers Creek WS NRCS Site 86	Ellis	1967	50	Trinity	2017
Chambers Creek WS NRCS Site 89	Ellis	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 9	Ellis	1959	50		2009
Chambers Creek WS NRCS Site 92	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 93	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 94	Ellis	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 95	Ellis	1961	50	Trinity	2011
Chambers Creek WS NRCS Site 97	Ellis	1960	50	Trinity	2010

Chambers Creek WS NRCS Site 98	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 98A	Ellis	1960	50	Trinity	2010
Chambers Creek WS NRCS Site 99	Ellis	1960	50	Trinity	2010
Chiltipin-San Fernando Crk Site 1	Jim Wells	1961	50	Nueces-Rio Grande	2011
Chiltipin-San Fernando Crk Site 2	Duval	1961	50	Nueces-Rio Grande	2011
Chiltipin-San Fernando Crk Site 4	Jim Wells	1975	50	Nueces-Rio Grande	2025
Chiltipin-San Fernando Crk Site 5	Jim Wells	1981	50	Nueces-Rio Grande	2031
Chiltipin-San Fernando Crk Site 6	Jim Wells	1964	50	Nueces-Rio Grande	2014
Chiltipin-San Fernando Crk Site 7	Jim Wells	1964	50	Nueces-Rio Grande	2014
Chiltipin-San Fernando Crk Site 8	Jim Wells	1961	50	Nueces-Rio Grande	2011
Chiltipin-San Fernando Crk Site 9	Jim Wells	1961	50	Nueces-Rio Grande	2011
Choctaw Creek WS NRCS Site 10A	Grayson	1975	100	Red	2075
Choctaw Creek WS NRCS Site 11	Grayson	1988	100	Red	2088
Choctaw Creek WS NRCS Site 12	Grayson	1973	100	Red	2073
Choctaw Creek WS NRCS Site 14	Grayson	1976	100	Red	2076
Choctaw Creek WS NRCS Site 15	Grayson	1976	100	Red	2076
Choctaw Creek WS NRCS Site 16	Grayson	1973	100	Red	2073
Choctaw Creek WS NRCS Site 17	Grayson	1973	100	Red	2073
Choctaw Creek WS NRCS Site 20	Grayson	1969	100	Red	2069
Choctaw Creek WS NRCS Site 21	Grayson	1968	100	Red	2068
Choctaw Creek WS NRCS Site 23	Grayson	1969	100	Red	2069
Choctaw Creek WS NRCS Site 25	Grayson	1977	100	Red	2077
Choctaw Creek WS NRCS Site 26	Grayson	1977	100	Red	2077

Choctaw Creek WS NRCS Site 27	Grayson	1972	100	Red	2072
Choctaw Creek WS NRCS Site 28	Grayson	1994	100	Red	2094
Choctaw Creek WS NRCS Site 29	Grayson	1978	100	Red	2078
Choctaw Creek WS NRCS Site 30 Rev	Grayson	2001	100	Red	2101
Choctaw Creek WS NRCS Site 32	Grayson	1978	100	Red	2078
Choctaw Creek WS NRCS Site 33	Grayson	1970	100	Red	2070
Choctaw Creek WS NRCS Site 34A	Grayson	1976	100	Red	2076
Choctaw Creek WS NRCS Site 38R	Grayson	1991	100	Red	2091
Choctaw Creek WS NRCS Site 39	Grayson	1970	100	Red	2070
Choctaw Creek WS NRCS Site 40	Grayson	1972	100	Red	2072
Choctaw Creek WS NRCS Site 8A	Grayson	2000	100	Red	2100
Clear Creek (Trinity) WS NRCS Site 10	Montague	1963	50	Trinity	2013
Clear Creek (Trinity) WS NRCS Site 101	Montague	1963	50	Trinity	2013
Clear Creek (Trinity) WS NRCS Site 103	Montague	1963	50	Trinity	2013
Clear Creek (Trinity) WS NRCS Site 104	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 105	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 106	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 107	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 109	Montague	1963	50	Trinity	2013
Clear Creek (Trinity) WS NRCS Site 111	Montague	1963	50	Trinity	2013
Clear Creek (Trinity) WS NRCS Site 112	Montague	1977	50	Trinity	2027
Clear Creek (Trinity) WS NRCS Site 113	Montague	1963	50	Trinity	2013
Clear Creek (Trinity) WS NRCS Site 12	Montague	1964	50	Trinity	2014

Clear Creek (Trinity) WS NRCS Site 13	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 14	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 15	Cooke	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 16	Cooke	1970	50	Trinity	2020
Clear Creek (Trinity) WS NRCS Site 17	Cooke	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 19	Cooke	1965	50	Trinity	2015
Clear Creek (Trinity) WS NRCS Site 1A	Montague	1966	50	Trinity	2016
Clear Creek (Trinity) WS NRCS Site 1B	Montague	1966	50	Trinity	2016
Clear Creek (Trinity) WS NRCS Site 2	Montague	1966	50	Trinity	2016
Clear Creek (Trinity) WS NRCS Site 21	Cooke	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 22	Montague	1964	50	Trinity	2014
Clear Creek (Trinity) WS NRCS Site 23	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 24	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 25	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 26	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 27	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 27A	Montague	1982	50	Trinity	2032
Clear Creek (Trinity) WS NRCS Site 28	Montague	1964	50	Trinity	2014
Clear Creek (Trinity) WS NRCS Site 29	Montague	1966	50	Trinity	2016
Clear Creek (Trinity) WS NRCS Site 3	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 30	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 31	Montague	1970	50	Trinity	2020
Clear Creek (Trinity) WS NRCS Site 32	Cooke	1966	50	Trinity	2016

Clear Creek (Trinity) WS NRCS Site 33	Cooke	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 34	Cooke	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 35	Cooke	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 36	Cooke	1961	50	Trinity	2011
Clear Creek (Trinity) WS NRCS Site 37	Denton	1965	50	Trinity	2015
Clear Creek (Trinity) WS NRCS Site 38	Denton	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 39	Denton	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 4	Montague	1963	50	Trinity	2013
Clear Creek (Trinity) WS NRCS Site 40	Denton	1964	50	Trinity	2014
Clear Creek (Trinity) WS NRCS Site 41	Denton	1961	50	Trinity	2011
Clear Creek (Trinity) WS NRCS Site 42	Denton	1967	50	Trinity	2017
Clear Creek (Trinity) WS NRCS Site 43A	Cooke	1966	50	Trinity	2016
Clear Creek (Trinity) WS NRCS Site 45	Cooke	1961	50	Trinity	2011
Clear Creek (Trinity) WS NRCS Site 46	Cooke	1961	50	Trinity	2011
Clear Creek (Trinity) WS NRCS Site 47	Cooke	1961	50	Trinity	2011
Clear Creek (Trinity) WS NRCS Site 48	Cooke	1965	50	Trinity	2015
Clear Creek (Trinity) WS NRCS Site 49	Denton	1965	50	Trinity	2015
Clear Creek (Trinity) WS NRCS Site 5	Montague	1962	50	Trinity	2012
Clear Creek (Trinity) WS NRCS Site 50	Denton	1961	50	Trinity	2011
Clear Creek (Trinity) WS NRCS Site 51	Denton	1965	50	Trinity	2015
Clear Creek (Trinity) WS NRCS Site 52	Cooke	1967	50	Trinity	2017
Clear Creek (Trinity) WS NRCS Site 53	Denton	1963	50	Trinity	2013
Clear Creek (Trinity) WS NRCS Site 55B	Denton	1969	50	Trinity	2019

Clear Creek (Trinity) WS NRCS Site 6	Montague	1964	50	Trinity	2014
Clear Creek (Trinity) WS NRCS Site 7	Montague	1964	50	Trinity	2014
Clear Creek (Trinity) WS NRCS Site 8	Montague	1964	50	Trinity	2014
Clear Creek (Trinity) WS NRCS Site 9	Montague	1962	50	Trinity	2012
Clear Creek WS NRCS Site 1	Brown	1960	50	Colorado	2010
Clear Creek WS NRCS Site 2	Brown	1956	50	Colorado	2006
Clear Creek WS NRCS Site 3	Brown	1960	50	Colorado	2010
Clear Creek WS NRCS Site 4	Brown	1958	50	Colorado	2008
Clear Creek WS NRCS Site 5	Brown	1957	50	Colorado	2007
Clear Creek WS NRCS Site 6	Brown	1958	50	Colorado	2008
Clear Creek WS NRCS Site 7	Brown	1956	50	Colorado	2006
Clear Creek WS NRCS Site 8	Brown	1957	50	Colorado	2007
Clear Fork Trinity River WS NRCS Site 1	Parker	1954	50	Trinity	2004
Clear Fork Trinity River WS NRCS Site 10	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 11	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 12	Parker	1956	50	Trinity	2006
Clear Fork Trinity River WS NRCS Site 13	Parker	1956	50	Trinity	2006
Clear Fork Trinity River WS NRCS Site 14	Parker	1956	50	Trinity	2006
Clear Fork Trinity River WS NRCS Site 15	Parker	1956	50	Trinity	2006
Clear Fork Trinity River WS NRCS Site 16	Parker	1956	50	Trinity	2006
Clear Fork Trinity River WS NRCS Site 16A	Parker	1971	50	Trinity	2021
Clear Fork Trinity River WS NRCS Site 17	Parker	1958	50	Trinity	2008
Clear Fork Trinity River WS NRCS Site 18	Parker	1956	50	Trinity	2006
Clear Fork Trinity River WS NRCS Site 19	Parker	1958	50	Trinity	2008
Clear Fork Trinity River WS NRCS Site 2	Parker	1954	50	Trinity	2004
Clear Fork Trinity River WS NRCS Site 21	Parker	1956	50	Trinity	2006
Clear Fork Trinity River WS NRCS Site 22A	Parker	1958	50	Trinity	2008

Clear Fork Trinity River WS NRCS Site 23	Parker	1957	50	Trinity	2007
Clear Fork Trinity River WS NRCS Site 24	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 25	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 25A	Parker	1958	50	Trinity	2008
Clear Fork Trinity River WS NRCS Site 26	Parker	1957	50	Trinity	2007
Clear Fork Trinity River WS NRCS Site 27	Parker	1957	50	Trinity	2007
Clear Fork Trinity River WS NRCS Site 28	Parker	1957	50	Trinity	2007
Clear Fork Trinity River WS NRCS Site 29	Parker	1958	50	Trinity	2008
Clear Fork Trinity River WS NRCS Site 3	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 30	Parker	1958	50	Trinity	2008
Clear Fork Trinity River WS NRCS Site 31	Parker	1956	50	Trinity	2006
Clear Fork Trinity River WS NRCS Site 32	Parker	1958	50	Trinity	2008
Clear Fork Trinity River WS NRCS Site 33	Parker	1958	50	Trinity	2008
Clear Fork Trinity River WS NRCS Site 4	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 5	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 6	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 7	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 8	Parker	1955	50	Trinity	2005
Clear Fork Trinity River WS NRCS Site 9	Parker	1955	50	Trinity	2005
Comal River WS NRCS Site 1	Comal	1979	100	Guadalupe	2079
Comal River WS NRCS Site 2	Comal	1981	100	Guadalupe	2081
Comal River WS NRCS Site 3	Comal	1974	100	Guadalupe	2074
Comal River WS NRCS Site 4	Comal	1967	100	Guadalupe	2067
Comal River WS NRCS Site 5	Comal	1957	100	Guadalupe	2057
Cornudas,North & Culp Draw WS NRCS Site 1	Hudspeth	1985	100	Rio Grande	2085

Cottle Co. Roadside Eros. Site lv-1	Cottle	1977	25	Red	2002
Cow Bayou WS NRCS Site 1	McLennan	1954	50	Brazos	2004
Cow Bayou WS NRCS Site 10	McLennan	1958	50	Brazos	2008
Cow Bayou WS NRCS Site 11B	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 11C	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 11E	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 12	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 15	Falls	1965	50	Brazos	2015
Cow Bayou WS NRCS Site 16	Falls	1965	50	Brazos	2015
Cow Bayou WS NRCS Site 17	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 18	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 19	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 2	McLennan	1958	50	Brazos	2008
Cow Bayou WS NRCS Site 20	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 21	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 22	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 23	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 24	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 25	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 26	McLennan	1964	50	Brazos	2014
Cow Bayou WS NRCS Site 27	Falls	1965	50	Brazos	2015
Cow Bayou WS NRCS Site 28	McLennan	1965	50	Brazos	2015
Cow Bayou WS NRCS Site 29	McLennan	1965	50	Brazos	2015
Cow Bayou WS NRCS Site 3	McLennan	1955	50	Brazos	2005
Cow Bayou WS NRCS Site 30	Falls	1965	50	Brazos	2015
Cow Bayou WS NRCS Site 4	McLennan	1956	50	Brazos	2006
Cow Bayou WS NRCS Site 5	McLennan	1957	50	Brazos	2007
Cow Bayou WS NRCS Site 6	McLennan	1956	50	Brazos	2006
Cow Bayou WS NRCS Site 7	Falls	1958	50	Brazos	2008
Cow Bayou WS NRCS Site 8	McLennan	1955	50	Brazos	2005
Cummins Creek WS NRCS Site 1	Lee	1958	50	Colorado	2008
Cummins Creek WS NRCS Site 10	Fayette	1960	50	Colorado	2010
Cummins Creek WS NRCS Site 11	Fayette	1960	50	Colorado	2010
Cummins Creek WS NRCS Site 15	Fayette	1959	50	Colorado	2009

Cummins Creek WS NRCS Site 17	Fayette	1960	50	Colorado	2010
Cummins Creek WS NRCS Site 19	Fayette	1960	50	Colorado	2010
Cummins Creek WS NRCS Site 2	Lee	1958	50	Colorado	2008
Cummins Creek WS NRCS Site 21	Fayette	1959	50	Colorado	2009
Cummins Creek WS NRCS Site 22	Fayette	1959	50	Colorado	2009
Cummins Creek WS NRCS Site 23	Fayette	1964	50	Colorado	2014
Cummins Creek WS NRCS Site 24	Fayette	1959	50	Colorado	2009
Cummins Creek WS NRCS Site 25	Fayette	1961	50	Colorado	2011
Cummins Creek WS NRCS Site 26	Fayette	1960	50	Colorado	2010
Cummins Creek WS NRCS Site 29	Fayette	1961	50	Colorado	2011
Cummins Creek WS NRCS Site 30	Fayette	1970	50	Colorado	2020
Cummins Creek WS NRCS Site 4	Fayette	1958	50	Colorado	2008
Cummins Creek WS NRCS Site 5	Fayette	1960	50	Colorado	2010
Cummins Creek WS NRCS Site 6	Fayette	1958	50	Colorado	2008
Cummins Creek WS NRCS Site 7	Fayette	1959	50	Colorado	2009
Cummins Creek WS NRCS Site 9	Fayette	1959	50	Colorado	2009
Dalton Moore	Red River	1981	25		2006
Deep Creek WS NRCS Site 1	McCulloch	1952	50	Colorado	2002
Deep Creek WS NRCS Site 2	McCulloch	1953	50	Colorado	2003
Deep Creek WS NRCS Site 3	McCulloch	1953	50	Colorado	2003
Deep Creek WS NRCS Site 5	McCulloch	1953	50	Colorado	2003
Deep Creek WS NRCS Site 8	McCulloch	1951	50	Colorado	2001
Denton Creek Land Stab. Str. 3-7	Montague	1968	25	Trinity	1993
Denton Creek Sed. Ctrl. Str. 10-3	Montague	1973	25	Trinity	1998
Denton Creek Sed. Ctrl. Str. 11-7	Montague	1972	25	Trinity	1997
Denton Creek Sed. Ctrl. Str. 16-1	Montague	1978	25	Trinity	2003

Denton Creek Sed. Ctrl. Str. 16-2	Montague	1978	25	Trinity	2003
Denton Creek Sed. Ctrl. Str. 2-9	Montague	1978	25	Trinity	2003
Denton Creek Sed. Ctrl. Str. 5-3A	Montague	1973	25	Trinity	1998
Denton Creek Sed. Ctrl. Str. 7-6	Montague	1977	25	Trinity	2002
Denton Creek Sed. Ctrl. Str. 8-1	Montague	1973	25	Trinity	1998
Denton Creek Sed. Ctrl. Str. 9-3	Montague	1971	25	Trinity	1996
Denton Creek WS NRCS Site 10A	Montague	1970	50	Trinity	2020
Denton Creek WS NRCS Site 10B	Wise	1968	50	Trinity	2018
Denton Creek WS NRCS Site 10C	Wise	1968	50	Trinity	2018
Denton Creek WS NRCS Site 10D	Wise	1968	50	Trinity	2018
Denton Creek WS NRCS Site 10E	Montague	1970	50	Trinity	2020
Denton Creek WS NRCS Site 11A	Wise	1970	50	Trinity	2020
Denton Creek WS NRCS Site 11B	Montague	1979	50	Trinity	2029
Denton Creek WS NRCS Site 11C	Montague	1970	50	Trinity	2020
Denton Creek WS NRCS Site 11D	Wise	1969	50	Trinity	2019
Denton Creek WS NRCS Site 11E	Wise	1969	50	Trinity	2019
Denton Creek WS NRCS Site 11F	Wise	1970	50	Trinity	2020
Denton Creek WS NRCS Site 11G	Wise	1970	50	Trinity	2020
Denton Creek WS NRCS Site 12	Wise	1968	50	Trinity	2018
Denton Creek WS NRCS Site 12C	Wise	1968	50	Trinity	2018
Denton Creek WS NRCS Site 12D	Wise	1968	50	Trinity	2018
Denton Creek WS NRCS Site 13	Wise	1968	50	Trinity	2018
Denton Creek WS NRCS Site 16	Wise	1968	50	Trinity	2018

Denton Creek WS NRCS Site 17	Wise	1962	50	Trinity	2012
Denton Creek WS NRCS Site 17A	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 18A-1	Wise	1962	50	Trinity	2012
Denton Creek WS NRCS Site 18B	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 18C	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 18D	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 18E	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 18F	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 18G	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 18H	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 18I	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 18J	Wise	1970	50	Trinity	2020
Denton Creek WS NRCS Site 1A	Montague	1966	50	Trinity	2016
Denton Creek WS NRCS Site 1B-1	Montague	1966	50	Trinity	2016
Denton Creek WS NRCS Site 1B-2	Montague	1966	50	Trinity	2016
Denton Creek WS NRCS Site 1C	Montague	1967	50	Trinity	2017
Denton Creek WS NRCS Site 1E	Montague	1971	50	Trinity	2021
Denton Creek WS NRCS Site 1F	Montague	1966	50	Trinity	2016
Denton Creek WS NRCS Site 1H	Montague	1971	50	Trinity	2021
Denton Creek WS NRCS Site 1J	Montague	1967	50	Trinity	2017
Denton Creek WS NRCS Site 1K	Montague	1968	50	Trinity	2018
Denton Creek WS NRCS Site 20	Wise	1973	50	Trinity	2023
Denton Creek WS NRCS Site 20A	Wise	1967	50	Trinity	2017

Denton Creek WS NRCS Site 21	Wise	1966	50	Trinity	2016
Denton Creek WS NRCS Site 21A	Wise	1966	50	Trinity	2016
Denton Creek WS NRCS Site 21B	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 21C	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 21D	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 23	Wise	1962	50	Trinity	2012
Denton Creek WS NRCS Site 23A	Wise	1963	50	Trinity	2013
Denton Creek WS NRCS Site 23B	Wise	1963	50	Trinity	2013
Denton Creek WS NRCS Site 23D	Wise	1964	50	Trinity	2014
Denton Creek WS NRCS Site 23E	Wise	1962	50	Trinity	2012
Denton Creek WS NRCS Site 24	Wise	1961	50	Trinity	2011
Denton Creek WS NRCS Site 24A	Wise	1964	50	Trinity	2014
Denton Creek WS NRCS Site 24B	Wise	1970	50	Trinity	2020
Denton Creek WS NRCS Site 25	Wise	1967	50	Trinity	2017
Denton Creek WS NRCS Site 25A	Wise	1961	50	Trinity	2011
Denton Creek WS NRCS Site 25B	Denton	1969	50	Trinity	2019
Denton Creek WS NRCS Site 26	Wise	1963	50	Trinity	2013
Denton Creek WS NRCS Site 27A	Wise	1962	50	Trinity	2012
Denton Creek WS NRCS Site 29	Wise	1972	50	Trinity	2022
Denton Creek WS NRCS Site 2A-1	Montague	1976	50	Trinity	2026
Denton Creek WS NRCS Site 2B	Montague	1971	50	Trinity	2021
Denton Creek WS NRCS Site 2C	Montague	1971	50	Trinity	2021
Denton Creek WS NRCS Site 2D	Montague	1971	50	Trinity	2021

Denton Creek WS NRCS Site 2E-1	Montague	1970	50	Trinity	2020
Denton Creek WS NRCS Site 2K	Montague	1970	50	Trinity	2020
Denton Creek WS NRCS Site 2L	Montague	1972	50	Trinity	2022
Denton Creek WS NRCS Site 3	Montague	1972	50	Trinity	2022
Denton Creek WS NRCS Site 30	Wise	1972	50	Trinity	2022
Denton Creek WS NRCS Site 31	Wise	1972	50	Trinity	2022
Denton Creek WS NRCS Site 3A	Montague	1969	50	Trinity	2019
Denton Creek WS NRCS Site 3B	Montague	1969	50	Trinity	2019
Denton Creek WS NRCS Site 3C	Montague	1968	50	Trinity	2018
Denton Creek WS NRCS Site 4B	Montague	1970	50	Trinity	2020
Denton Creek WS NRCS Site 4C	Montague	1972	50	Trinity	2022
Denton Creek WS NRCS Site 5	Montague	1968	50	Trinity	2018
Denton Creek WS NRCS Site 6	Montague	1972	50	Trinity	2022
Denton Creek WS NRCS Site 6A	Montague	1970	50	Trinity	2020
Denton Creek WS NRCS Site 7A	Montague	1970	50	Trinity	2020
Denton Creek WS NRCS Site 7B	Montague	1969	50	Trinity	2019
Denton Creek WS NRCS Site 7D	Montague	1972	50	Trinity	2022
Denton Creek WS NRCS Site 8A	Montague	1969	50	Trinity	2019
Denton Creek WS NRCS Site 8B	Montague	1969	50	Trinity	2019
Denton Creek WS NRCS Site 8D	Montague	1969	50	Trinity	2019
Denton Creek WS NRCS Site 9A	Montague	1969	50	Trinity	2019
Denton Creek WS NRCS Site 9B	Montague	1970	50	Trinity	2020
Denton Creek WS NRCS Site 9C	Montague	1970	50	Trinity	2020

Denton Creek WS NRCS Site 9D	Montague	1971	50	Trinity	2021
Deport Creek WS NRCS Site 1	Lamar	1980	100	Sulphur	2080
Diablo Arroyo WS NRCS Site 1	Hudspeth	1960	50	Rio Grande	2010
Diablo Arroyo WS NRCS Site 2	Hudspeth	1960	50	Rio Grande	2010
Donahoe Creek WS NRCS Site 10	Milam	1976	100	Brazos	2076
Donahoe Creek WS NRCS Site 5	Bell	1976	100	Brazos	2076
Donahoe Creek WS NRCS Site 6	Bell	1976	100	Brazos	2076
Donahoe Creek WS NRCS Site 7	Bell	1970	100	Brazos	2070
Donahoe Creek WS NRCS Site 8	Bell	1970	100	Brazos	2070
Donahoe Creek WS NRCS Site 9	Milam	1968	100	Brazos	2068
Dry Devil & Lowrey WS NRCS Site 1	Schleicher	1961	50	Rio Grande	2011
Dry Devil & Lowrey WS NRCS Site 10	Sutton	1959	50	Rio Grande	2009
Dry Devil & Lowrey WS NRCS Site 11	Sutton	1960	50	Rio Grande	2010
Dry Devil & Lowrey WS NRCS Site 12	Sutton	1959	50	Rio Grande	2009
Dry Devil & Lowrey WS NRCS Site 13	Sutton	1959	50	Rio Grande	2009
Dry Devil & Lowrey WS NRCS Site 2	Schleicher	1961	50	Rio Grande	2011
Dry Devil & Lowrey WS NRCS Site 3	Sutton	1961	50	Rio Grande	2011
Dry Devil & Lowrey WS NRCS Site 4	Sutton	1961	50	Rio Grande	2011
Dry Devil & Lowrey WS NRCS Site 5	Sutton	1960	50	Rio Grande	2010
Dry Devil & Lowrey WS NRCS Site 6	Sutton	1960	50	Rio Grande	2010
Dry Devil & Lowrey WS NRCS Site 7	Sutton	1960	50	Rio Grande	2010
Dry Devil & Lowrey WS NRCS Site 8	Sutton	1960	50	Rio Grande	2010
Dry Devil & Lowrey WS NRCS Site 9	Sutton	1960	50	Rio Grande	2010
Duck Creek WS NRCS Site 1	Dickens	1968	100	Brazos	2068

Duck Creek WS NRCS Site 10	Dickens	1969	100	Brazos	2069
Duck Creek WS NRCS Site 11	Dickens	1968	100	Brazos	2068
Duck Creek WS NRCS Site 12	Dickens	1970	100	Brazos	2070
Duck Creek WS NRCS Site 2	Dickens	1967	100	Brazos	2067
Duck Creek WS NRCS Site 3	Dickens	1969	100	Brazos	2069
Duck Creek WS NRCS Site 4	Dickens	1967	100	Brazos	2067
Duck Creek WS NRCS Site 5	Dickens	1969	100	Brazos	2069
Duck Creek WS NRCS Site 6	Dickens	1967	100	Brazos	2067
Duck Creek WS NRCS Site 7	Dickens	1968	100	Brazos	2068
Duck Creek WS NRCS Site 8	Dickens	1969	100	Brazos	2069
Duck Creek WS NRCS Site 9	Dickens	1968	100	Brazos	2068
Duck Creek WS NRCS Site Ca-1	Dickens	1967	25	Brazos	1992
Duck Creek WS NRCS Site Ca-2	Dickens	1967	25	Brazos	1992
Duck Creek WS NRCS Site Ca-3	Dickens	1968	25	Brazos	1993
Duck Creek WS NRCS Site Ca-4	Dickens	1968	25	Brazos	1993
Duck Creek WS NRCS Site Ca-5	Dickens	1968	25	Brazos	1993
East Fork Above Lavon WS NRCS Site 10	Collin	1952	50	Trinity	2002
East Fork Above Lavon WS NRCS Site 11	Collin	1952	50	Trinity	2002
East Fork Above Lavon WS NRCS Site 12	Collin	1952	50	Trinity	2002
East Fork Above Lavon WS NRCS Site 13	Collin	1952	50	Trinity	2002
East Fork Above Lavon WS NRCS Site 14	Collin	1951	50	Trinity	2001
East Fork Above Lavon WS NRCS Site 15	Collin	1951	50	Trinity	2001
East Fork Above Lavon WS NRCS Site 16	Collin	1951	50	Trinity	2001
East Fork Above Lavon WS NRCS Site 17	Collin	1967	50	Trinity	2017
East Fork Above Lavon WS NRCS Site 18	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 19	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 1A	Collin	1957	50	Trinity	2007
East Fork Above Lavon WS NRCS Site 1B	Collin	1957	50	Trinity	2007

East Fork Above Lavon WS NRCS Site 1C	Collin	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 1D-A	Collin	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 20	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 20A	Grayson	1966	50	Trinity	2016
East Fork Above Lavon WS NRCS Site 21	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 22	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 24	Collin	1953	50	Trinity	2003
East Fork Above Lavon WS NRCS Site 26	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 26A	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 26B	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 27	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 28	Grayson	1965	50	Trinity	2015
East Fork Above Lavon WS NRCS Site 29	Collin	1965	50	Trinity	2015
East Fork Above Lavon WS NRCS Site 29A	Collin	1965	50	Trinity	2015
East Fork Above Lavon WS NRCS Site 2A	Collin	1958	50	Trinity	2008
East Fork Above Lavon WS NRCS Site 2B	Collin	1959	50	Trinity	2009
East Fork Above Lavon WS NRCS Site 30	Collin	1965	50	Trinity	2015
East Fork Above Lavon WS NRCS Site 31	Collin	1965	50	Trinity	2015
East Fork Above Lavon WS NRCS Site 32	Collin	1966	50	Trinity	2016
East Fork Above Lavon WS NRCS Site 32A	Collin	1966	50	Trinity	2016
East Fork Above Lavon WS NRCS Site 33	Collin	1966	50	Trinity	2016
East Fork Above Lavon WS NRCS Site 34	Collin	1966	50	Trinity	2016
East Fork Above Lavon WS NRCS Site 35	Grayson	1964	50	Trinity	2014

East Fork Above Lavon WS NRCS Site 35A	Grayson	1966	50	Trinity	2016
East Fork Above Lavon WS NRCS Site 36	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 37	Grayson	1964	50	Trinity	2014
East Fork Above Lavon WS NRCS Site 38	Grayson	1966	50	Trinity	2016
East Fork Above Lavon WS NRCS Site 39	Grayson	1966	50	Trinity	2016
East Fork Above Lavon WS NRCS Site 3A	Collin	1958	50	Trinity	2008
East Fork Above Lavon WS NRCS Site 3B	Collin	1958	50	Trinity	2008
East Fork Above Lavon WS NRCS Site 3C	Collin	1958	50	Trinity	2008
East Fork Above Lavon WS NRCS Site 3D	Collin	1958	50	Trinity	2008
East Fork Above Lavon WS NRCS Site 3E	Collin	1967	50	Trinity	2017
East Fork Above Lavon WS NRCS Site 4	Collin	1959	50	Trinity	2009
East Fork Above Lavon WS NRCS Site 42	Collin	1958	50	Trinity	2008
East Fork Above Lavon WS NRCS Site 43	Collin	1959	50	Trinity	2009
East Fork Above Lavon WS NRCS Site 44	Collin	1959	50	Trinity	2009
East Fork Above Lavon WS NRCS Site 45	Collin	1959	50	Trinity	2009
East Fork Above Lavon WS NRCS Site 46	Collin	1960	50	Trinity	2010
East Fork Above Lavon WS NRCS Site 47	Collin	1960	50	Trinity	2010
East Fork Above Lavon WS NRCS Site 48	Collin	1966	50	Trinity	2016
East Fork Above Lavon WS NRCS Site 53	Collin	1969	50	Trinity	2019
East Fork Above Lavon WS NRCS Site 5A	Collin	1958	50	Trinity	2008
East Fork Above Lavon WS NRCS Site 8A	Collin	1969	50	Trinity	2019
East Fork Above Lavon WS NRCS Site 8B1	Collin	1974	50	Trinity	2024
East Fork Above Lavon WS NRCS Site 8C	Collin	1956	50	Trinity	2006

East Fork Above Lavon WS NRCS Site 8D	Collin	1957	50	Trinity	2007
East Fork Above Lavon WS NRCS Site 8E	Collin	1957	50	Trinity	2007
East Fork Above Lavon WS NRCS Site 8F	Collin	1955	50	Trinity	2005
East Fork Above Lavon WS NRCS Site 8G	Collin	1955	50	Trinity	2005
East Fork Above Lavon WS NRCS Site 8H	Collin	1956	50	Trinity	2006
East Fork Above Lavon WS NRCS Site 9	Collin	1951	50	Trinity	2001
East Keechi Creek WS NRCS Site 1	Jack	1964	50	Brazos	2014
East Keechi Creek WS NRCS Site 10	Palo Pinto	1964	50	Brazos	2014
East Keechi Creek WS NRCS Site 2	Jack	1964	50	Brazos	2014
East Keechi Creek WS NRCS Site 3	Jack	1964	50	Brazos	2014
East Keechi Creek WS NRCS Site 4	Jack	1964	50	Brazos	2014
East Keechi Creek WS NRCS Site 5	Jack	1964	50	Brazos	2014
East Keechi Creek WS NRCS Site 6	Jack	1965	50	Brazos	2015
East Keechi Creek WS NRCS Site 7	Jack	1965	50	Brazos	2015
East Keechi Creek WS NRCS Site 8	Palo Pinto	1966	50	Brazos	2016
East Keechi Creek WS NRCS Site 9	Jack	1966	50	Brazos	2016
East Laterals WS NRCS Site 1	Henderson	1954	50	Trinity	2004
East Laterals WS NRCS Site 2	Henderson	1954	50	Trinity	2004
East Laterals WS NRCS Site 3	Henderson	1955	50	Trinity	2005
East Laterals WS NRCS Site 4	Henderson	1955	50	Trinity	2005
Ecleto Creek WS NRCS Site 10	De Witt	1994	100	San Antonio	2094
Ecleto Creek WS NRCS Site 3	Wilson	2000	100	San Antonio	2100
Ecleto Creek WS NRCS Site 4	Karnes	1995	100	San Antonio	2095
Ecleto Creek WS NRCS Site 6	Karnes	1995	100	San Antonio	2095
Ecleto Creek WS NRCS Site 9A	De Witt	1993	100	San Antonio	2093
Elk Creek Site 35	Hemphill	1987	25	Canadian	2012
Elliott Dam	Red River	1986	25	Sulphur	2011

Elm Creek (1250) WS NRCS Site 3 Rev	Runnels	2004	100	Colorado	2104
Elm Creek (1250) WS NRCS Site 6 Rev	Runnels	1992	100	Colorado	2092
Elm Creek (1250) WS NRCS Site 7Rev	Runnels	1998	100	Colorado	2098
Elm Creek (Cen-Tex) WS NRCS Site 17A	Bell	1997	100	Brazos	2097
Elm Creek (Cen-Tex) WS NRCS Site 1	Bell	1984	100	Brazos	2084
Elm Creek (Cen-Tex) WS NRCS Site 10	Bell	1987	100	Brazos	2087
Elm Creek (Cen-Tex) WS NRCS Site 11	Bell	1985	100	Brazos	2085
Elm Creek (Cen-Tex) WS NRCS Site 13R	Bell	1991	100	Brazos	2091
Elm Creek (Cen-Tex) WS NRCS Site 14	Bell	1985	100	Brazos	2085
Elm Creek (Cen-Tex) WS NRCS Site 15	Bell	1992	100	Brazos	2092
Elm Creek (Cen-Tex) WS NRCS Site 16	Bell	1992	100	Brazos	2092
Elm Creek (Cen-Tex) WS NRCS Site 19	Bell	1999	100	Brazos	2099
Elm Creek (Cen-Tex) WS NRCS Site 2	Bell	1991	100	Brazos	2091
Elm Creek (Cen-Tex) WS NRCS Site 20	Bell	1985	100	Brazos	2085
Elm Creek (Cen-Tex) WS NRCS Site 21	Bell	1985	100	Brazos	2085
Elm Creek (Cen-Tex) WS NRCS Site 22	Bell	1985	100	Brazos	2085
Elm Creek (Cen-Tex) WS NRCS Site 23	Bell	1987	100	Brazos	2087
Elm Creek (Cen-Tex) WS NRCS Site 24	Bell	1987	100	Brazos	2087
Elm Creek (Cen-Tex) WS NRCS Site 25	Milam	1984	100	Brazos	2084
Elm Creek (Cen-Tex) WS NRCS Site 26	Bell	1984	100	Brazos	2084
Elm Creek (Cen-Tex) WS NRCS Site 28	Bell	1981	100	Brazos	2081
Elm Creek (Cen-Tex) WS NRCS Site 29	Bell	1982	100	Brazos	2082
Elm Creek (Cen-Tex) WS NRCS Site 3	Bell	1984	100	Brazos	2084

Elm Creek (Cen-Tex) WS NRCS Site 30	Bell	1984	100	Brazos	2084
Elm Creek (Cen-Tex) WS NRCS Site 31	Bell	1982	100	Brazos	2082
Elm Creek (Cen-Tex) WS NRCS Site 32	Milam	1984	100	Brazos	2084
Elm Creek (Cen-Tex) WS NRCS Site 33	Milam	1981	100	Brazos	2081
Elm Creek (Cen-Tex) WS NRCS Site 34	Milam	2009	100	Brazos	2109
Elm Creek (Cen-Tex) WS NRCS Site 35	Milam	1985	100	Brazos	2085
Elm Creek (Cen-Tex) WS NRCS Site 36	Milam	1989	100	Brazos	2089
Elm Creek (Cen-Tex) WS NRCS Site 37	Milam	1985	100	Brazos	2085
Elm Creek (Cen-Tex) WS NRCS Site 38	Milam	1989	100	Brazos	2089
Elm Creek (Cen-Tex) WS NRCS Site 39	Falls	1987	100	Brazos	2087
Elm Creek (Cen-Tex) WS NRCS Site 4	Bell	1988	100	Brazos	2088
Elm Creek (Cen-Tex) WS NRCS Site 43	Milam	1989	100	Brazos	2089
Elm Creek (Cen-Tex) WS NRCS Site 5A	Bell	2006	100	Brazos	2106
Elm Creek (Cen-Tex) WS NRCS Site 8	Bell	1984	100	Brazos	2084
Elm Fork WS NRCS Site 1	Montague	1954	50	Trinity	2004
Elm Fork WS NRCS Site 11B	Cooke	1958	50	Trinity	2008
Elm Fork WS NRCS Site 12	Cooke	1958	50	Trinity	2008
Elm Fork WS NRCS Site 19 MP	Cooke	2006	50	Trinity	2056
Elm Fork WS NRCS Site 2	Cooke	1954	50	Trinity	2004
Elm Fork WS NRCS Site 3	Cooke	1955	50	Trinity	2005
Elm Fork WS NRCS Site 4	Cooke	1955	50	Trinity	2005
Elm Fork WS NRCS Site 5	Montague	1955	50	Trinity	2005
Elm Fork WS NRCS Site 5A	Cooke	1955	50	Trinity	2005
Elm Fork WS NRCS Site 5B	Cooke	1955	50	Trinity	2005
Elm Fork WS NRCS Site 6-0	Cooke	1956	50	Trinity	2006
Elm Fork WS NRCS Site 61CC	Cooke	1963	50	Trinity	2013
Elm Fork WS NRCS Site 61D	Cooke	1963	50	Trinity	2013
Elm Fork WS NRCS Site 61F	Cooke	1963	50	Trinity	2013
Elm Fork WS NRCS Site 61G	Cooke	1963	50	Trinity	2013
Elm Fork WS NRCS Site 61K	Cooke	1962	50	Trinity	2012

Elm Fork WS NRCS Site 61L	Cooke	1962	50	Trinity	2012
Elm Fork WS NRCS Site 61Q	Cooke	1962	50	Trinity	2012
Elm Fork WS NRCS Site 6A-1	Cooke	1958	50	Trinity	2008
Elm Fork WS NRCS Site 6B	Cooke	1957	50	Trinity	2007
Elm Fork WS NRCS Site 6E	Cooke	1958	50	Trinity	2008
Elm Fork WS NRCS Site 6H	Cooke	1957	50	Trinity	2007
Elm Fork WS NRCS Site 6I	Cooke	1957	50	Trinity	2007
Elm Fork WS NRCS Site 6J2	Cooke	1957	50	Trinity	2007
Elm Fork WS NRCS Site 6K2	Cooke	1957	50	Trinity	2007
Elm Fork WS NRCS Site 6L	Cooke	1957	50	Trinity	2007
Elm Fork WS NRCS Site 6M	Cooke	1956	50	Trinity	2006
Elm Fork WS NRCS Site 6N	Cooke	1956	50	Trinity	2006
Elm Fork WS NRCS Site 7A	Cooke	1958	50	Trinity	2008
Elm Fork WS NRCS Site 7B	Cooke	1957	50	Trinity	2007
Elm Fork WS NRCS Site 7C	Cooke	1962	50	Trinity	2012
Elm Fork WS NRCS Site 7D	Cooke	1958	50	Trinity	2008
Elm Fork WS NRCS Site 7F	Cooke	1959	50	Trinity	2009
Elm Fork WS NRCS Site 7G	Cooke	1959	50	Trinity	2009
Elm Fork WS NRCS Site 9	Cooke	1960	50	Trinity	2010
Escondido Creek WS NRCS Site 1	Karnes	1954	50	San Antonio	2004
Escondido Creek WS NRCS Site 10	Karnes	1954	50	San Antonio	2004
Escondido Creek WS NRCS Site 11	Karnes	1958	50	San Antonio	2008
Escondido Creek WS NRCS Site 12	Karnes	1974	100	San Antonio	2074
Escondido Creek WS NRCS Site 13	Karnes	1973	100	San Antonio	2073
Escondido Creek WS NRCS Site 2	Karnes	1955	50	San Antonio	2005
Escondido Creek WS NRCS Site 3	Karnes	1956	50	San Antonio	2006
Escondido Creek WS NRCS Site 4	Karnes	1956	50	San Antonio	2006
Escondido Creek WS NRCS Site 5	Karnes	1956	50	San Antonio	2006
Escondido Creek WS NRCS Site 6	Karnes	1955	50	San Antonio	2005
Escondido Creek WS NRCS Site 7	Karnes	1956	50	San Antonio	2006
Escondido Creek WS NRCS Site 8	Karnes	1957	50	San Antonio	2007

Escondido Creek WS NRCS Site 9	Karnes	1957	50	San Antonio	2007
Farmers Creek WS NRCS Db 102	Montague	1973	25	Red	1998
Farmers Creek WS NRCS Db 104	Montague	1973	25	Red	1998
Farmers Creek WS NRCS Db 105	Montague	1973	25	Red	1998
Farmers Creek WS NRCS Db 110	Montague	1974	25	Red	1999
Farmers Creek WS NRCS Db 112	Montague	1975	25	Red	2000
Farmers Creek WS NRCS Db 115	Montague	1976	25	Red	2001
Farmers Creek WS NRCS Db 116	Montague	1975	25	Red	2000
Farmers Creek WS NRCS Db 117	Montague	1975	25	Red	2000
Farmers Creek WS NRCS Db 118	Montague	1975	25	Red	2000
Farmers Creek WS NRCS Db 119	Montague	1975	25	Red	2000
Farmers Creek WS NRCS Db 120	Montague	1975	25	Red	2000
Farmers Creek WS NRCS Db 121	Montague	1975	25	Red	2000
Farmers Creek WS NRCS Db 122	Montague	1974	25	Red	1999
Farmers Creek WS NRCS Site 1	Montague	1979	100	Red	2079
Farmers Creek WS NRCS Site 10	Montague	1982	100	Red	2082
Farmers Creek WS NRCS Site 2	Montague	1973	100	Red	2073
Farmers Creek WS NRCS Site 3	Montague	1975	100	Red	2075
Farmers Creek WS NRCS Site 4	Montague	1975	100	Red	2075
Farmers Creek WS NRCS Site 5	Montague	1978	100	Red	2078
Farmers Creek WS NRCS Site 6	Montague	1977	100	Red	2077
Farmers Creek WS NRCS Site 7	Montague	1979	100	Red	2079
Farmers Creek WS NRCS Site 8	Montague	1977	100	Red	2077

Farmers Creek WS NRCS Site 9	Montague	1975	100		2075
Fenner & Taylor Dam	Austin	1984	25	Brazos	2009
Gray Co. Cat Site 6	Gray	1984	25	Red	2009
Grays Creek WS NRCS Site 1	Navarro	1954	50	Trinity	2004
Grays Creek WS NRCS Site 103	Navarro	1963	50	Trinity	2013
Grays Creek WS NRCS Site 104	Navarro	1963	50	Trinity	2013
Grays Creek WS NRCS Site 105	Navarro	1963	50	Trinity	2013
Grays Creek WS NRCS Site 2	Navarro	1954	50	Trinity	2004
Grays Creek WS NRCS Site 3	Navarro	1954	50	Trinity	2004
Grays Creek WS NRCS Site 4	Navarro	1954	50	Trinity	2004
Grays Creek WS NRCS Site 5	Navarro	1954	50	Trinity	2004
Grays Creek WS NRCS Site 6	Navarro	1954	50	Trinity	2004
Grays Creek WS NRCS Site 7A	Navarro	1954	50	Trinity	2004
Grays Creek WS NRCS Site 7B	Navarro	1955	50	Trinity	2005
Grays Creek WS NRCS Site 7C	Navarro	1954	50	Trinity	2004
Grays Creek WS NRCS Site 8	Navarro	1955	50	Trinity	2005
Grays Creek WS NRCS Site 9	Navarro	1954	50	Trinity	2004
Green Creek WS NRCS Site 1	Erath	1955	50	Brazos	2005
Green Creek WS NRCS Site 10	Erath	1957	50	Brazos	2007
Green Creek WS NRCS Site 11	Erath	1956	50	Brazos	2006
Green Creek WS NRCS Site 12	Erath	1957	50	Brazos	2007
Green Creek WS NRCS Site 13	Erath	1956	50	Brazos	2006
Green Creek WS NRCS Site 2	Erath	1955	50	Brazos	2005
Green Creek WS NRCS Site 3	Erath	1954	50	Brazos	2004
Green Creek WS NRCS Site 4	Erath	1955	50	Brazos	2005
Green Creek WS NRCS Site 5	Erath	1955	50	Brazos	2005
Green Creek WS NRCS Site 6	Erath	1955	50	Brazos	2005
Green Creek WS NRCS Site 7	Erath	1956	50	Brazos	2006
Green Creek WS NRCS Site 8	Erath	1956	50	Brazos	2006
Green Creek WS NRCS Site 9	Erath	1956	50	Brazos	2006
Hamilton Creek WS NRCS Site 1	Burnet	1986	100	Colorado	2086
Hamilton Creek WS NRCS Site 2	Burnet	1986	100	Colorado	2086
Hamilton Creek WS NRCS Site 3	Burnet	1986	100	Colorado	2086

Hardeman Co. Roadside Ero. Site Iii-2	Hardeman	1981	25	Red	2006
Hardy Lake	Walker	1991	25	Trinity	2016
Harrington-Caviness Dam (Mr-51)	Lamar	1981	25	Sulphur	2006
Harris Dam 1 (G-131)	Lamar	1981	25	Sulphur	2006
Hickory Creek WS NRCS Site 11	Denton	1971	100	Trinity	2071
Hickory Creek WS NRCS Site 12	Denton	1972	100	Trinity	2072
Hickory Creek WS NRCS Site 13	Denton	1972	100	Trinity	2072
Hickory Creek WS NRCS Site 14	Denton	1972	100	Trinity	2072
Hickory Creek WS NRCS Site 16	Denton	1975	100	Trinity	2075
Hickory Creek WS NRCS Site 17A	Denton	1975	100	Trinity	2075
Hickory Creek WS NRCS Site 2	Denton	1970	100	Trinity	2070
Hickory Creek WS NRCS Site 4	Denton	1970	100	Trinity	2070
Hickory Creek WS NRCS Site 7	Denton	1973	100	Trinity	2073
Hitson,C&L & Washburn Draws WS NRCS Site 1	Hudspeth	1987	100	Rio Grande	2087
Hitson,C&L & Washburn Draws WS NRCS Site 2	Hudspeth	1982	100	Rio Grande	2082
Hitson,C&L & Washburn Draws WS NRCS Site 3	Hudspeth	1986	100	Rio Grande	2086
Hog Creek WS NRCS Site 1	Bosque	1977	100	Brazos	2077
Hog Creek WS NRCS Site 2	Bosque	1979	100	Brazos	2079
Home Creek WS NRCS Site 10	Coleman	1964	50	Colorado	2014
Home Creek WS NRCS Site 11	Coleman	1968	50	Colorado	2018
Home Creek WS NRCS Site 12	Coleman	1964	50	Colorado	2014
Home Creek WS NRCS Site 13	Coleman	1974	50	Colorado	2024
Home Creek WS NRCS Site 14	Coleman	1964	50	Colorado	2014
Home Creek WS NRCS Site 15	Coleman	1966	50	Colorado	2016
Home Creek WS NRCS Site 17	Coleman	1964	50	Colorado	2014

Home Creek WS NRCS Site 18	Coleman	1966	50	Colorado	2016
Home Creek WS NRCS Site 19	Coleman	1966	50	Colorado	2016
Home Creek WS NRCS Site 1B	Coleman	1970	50	Colorado	2020
Home Creek WS NRCS Site 2	Coleman	1964	50	Colorado	2014
Home Creek WS NRCS Site 20	Coleman	1964	50	Colorado	2014
Home Creek WS NRCS Site 21	Coleman	1970	50	Colorado	2020
Home Creek WS NRCS Site 22	Coleman	1965	50	Colorado	2015
Home Creek WS NRCS Site 3	Coleman	1966	50	Colorado	2016
Home Creek WS NRCS Site 4	Coleman	1964	50	Colorado	2014
Home Creek WS NRCS Site 5	Coleman	1964	50	Colorado	2014
Home Creek WS NRCS Site 6A	Coleman	1964	50	Colorado	2014
Home Creek WS NRCS Site 7A	Coleman	1970	50	Colorado	2020
Home Creek WS NRCS Site 8	Coleman	1964	50	Colorado	2014
Home Creek WS NRCS Site 9	Coleman	1964	50	Colorado	2014
Hondo Creek WS NRCS Site 1	Karnes	1968	100	San Antonio	2068
Hondo Creek WS NRCS Site 2	Karnes	1967	100	San Antonio	2067
Hondo Creek WS NRCS Site 3	Karnes	1967	100	San Antonio	2067
Humphries Dam	Lamar	1986	25	Sulphur	2011
Jim Ned Creek WS NRCS Site 10	Coleman	1963	50	Colorado	2013
Jim Ned Creek WS NRCS Site 11	Coleman	1963	50	Colorado	2013
Jim Ned Creek WS NRCS Site 12	Coleman	1963	50	Colorado	2013
Jim Ned Creek WS NRCS Site 12A	Taylor	1963	50	Colorado	2013
Jim Ned Creek WS NRCS Site 12C	Coleman	1961	50	Colorado	2011
Jim Ned Creek WS NRCS Site 12E1	Coleman	1965	50	Colorado	2015
Jim Ned Creek WS NRCS Site 12F	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 15	Taylor	1960	50	Colorado	2010
Jim Ned Creek WS NRCS Site 16	Taylor	1960	50	Colorado	2010
Jim Ned Creek WS NRCS Site 17	Taylor	1960	50	Colorado	2010

Jim Ned Creek WS NRCS Site 17B1	Taylor	1968	50	Colorado	2018
Jim Ned Creek WS NRCS Site 19	Taylor	1960	50	Colorado	2010
Jim Ned Creek WS NRCS Site 2	Coleman	1963	50	Colorado	2013
Jim Ned Creek WS NRCS Site 20	Coleman	1960	50	Colorado	2010
Jim Ned Creek WS NRCS Site 21	Coleman	1963	50	Colorado	2013
Jim Ned Creek WS NRCS Site 22	Coleman	1963	50	Colorado	2013
Jim Ned Creek WS NRCS Site 23	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 24	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 25	Coleman	1963	50	Colorado	2013
Jim Ned Creek WS NRCS Site 25A	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 25B1	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 26A	Coleman	1966	50	Colorado	2016
Jim Ned Creek WS NRCS Site 27	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 28	Coleman	1967	50	Colorado	2017
Jim Ned Creek WS NRCS Site 3	Coleman	1963	50	Colorado	2013
Jim Ned Creek WS NRCS Site 31	Coleman	1964	50	Colorado	2014
Jim Ned Creek WS NRCS Site 32	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 33	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 34A	Coleman	1965	50	Colorado	2015
Jim Ned Creek WS NRCS Site 35	Coleman	1967	50	Colorado	2017
Jim Ned Creek WS NRCS Site 36	Coleman	1967	50	Colorado	2017
Jim Ned Creek WS NRCS Site 37	Coleman	1974	50	Colorado	2024
Jim Ned Creek WS NRCS Site 38A	Coleman	1976	50	Colorado	2026

Jim Ned Creek WS NRCS Site 5	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 6	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 7	Coleman	1962	50	Colorado	2012
Jim Ned Creek WS NRCS Site 8	Coleman	1962	50	Colorado	2012
Johnsons Draw WS NRCS Site 1	Crockett	1957	50	Rio Grande	2007
Johnsons Draw WS NRCS Site 2	Crockett	1958	50	Rio Grande	2008
Johnsons Draw WS NRCS Site 3	Crockett	1958	50	Rio Grande	2008
Johnsons Draw WS NRCS Site 4	Crockett	1959	50	Rio Grande	2009
Johnsons Draw WS NRCS Site 5	Crockett	1958	50	Rio Grande	2008
Johnsons Draw WS NRCS Site 6	Crockett	1958	50	Rio Grande	2008
Johnsons Draw WS NRCS Site 7	Crockett	1959	50	Rio Grande	2009
Kent Creek WS NRCS Site 1	Briscoe	1964	50	Red	2014
Kent Creek WS NRCS Site 2	Briscoe	1964	50	Red	2014
Kent Creek WS NRCS Site 3	Briscoe	1964	50	Red	2014
Kent Creek WS NRCS Site 5	Briscoe	1964	50	Red	2014
Kent Creek WS NRCS Site 6	Briscoe	1964	50	Red	2014
Kent Creek WS NRCS Site 7	Briscoe	1964	50	Red	2014
Kickapoo Creek WS NRCS Site 1	Coke	1962	50	Colorado	2012
Kickapoo Creek WS NRCS Site 2	Coke	1964	50	Colorado	2014
Kickapoo Creek WS NRCS Site 3	Coke	1963	50	Colorado	2013
Kickapoo Creek WS NRCS Site 4	Coke	1962	50	Colorado	2012
Kickapoo Creek WS NRCS Site 5	Coke	1963	50	Colorado	2013
Kickapoo Creek WS NRCS Site 6	Coke	1963	50	Colorado	2013
Kubin-Reistino Lake Dam	Milam	1981	25	Brazos	2006
Lake Creek WS NRCS Site 1	Anderson	1954	50	Trinity	2004
Lake Creek WS NRCS Site 2	Anderson	1954	50	Trinity	2004
Lake Creek WS NRCS Site 3	Anderson	1953	50	Trinity	2003
Lakeview WS NRCS Site 1	Donley	1976	100	Red	2076

Lakeview WS NRCS Site 10	Hall	1981	100	Red	2081
Lakeview WS NRCS Site 101	Hall	1980	100	Red	2080
Lakeview WS NRCS Site 102	Hall	1980	100	Red	2080
Lakeview WS NRCS Site 103	Hall	1980	100	Red	2080
Lakeview WS NRCS Site 104	Hall	1980	100	Red	2080
Lakeview WS NRCS Site 105E	Hall	1985	100	Red	2085
Lakeview WS NRCS Site 105W	Hall	1985	100	Red	2085
Lakeview WS NRCS Site 106	Hall	1985	100	Red	2085
Lakeview WS NRCS Site 107	Hall	1979	100	Red	2079
Lakeview WS NRCS Site 11	Hall	1981	100	Red	2081
Lakeview WS NRCS Site 12	Hall	1982	100	Red	2082
Lakeview WS NRCS Site 13	Hall	1982	100	Red	2082
Lakeview WS NRCS Site 14	Hall	1979	100	Red	2079
Lakeview WS NRCS Site 15	Hall	1978	100	Red	2078
Lakeview WS NRCS Site 16	Hall	1978	100	Red	2078
Lakeview WS NRCS Site 2	Donley	1976	100	Red	2076
Lakeview WS NRCS Site 3	Hall	1975	100	Red	2075
Lakeview WS NRCS Site 4	Hall	1973	100	Red	2073
Lakeview WS NRCS Site 5	Hall	1975	100	Red	2075
Lakeview WS NRCS Site 6	Hall	1979	100	Red	2079
Lakeview WS NRCS Site 7	Hall	1979	100	Red	2079
Lakeview WS NRCS Site 8	Hall	1979	100	Red	2079
Lakeview WS NRCS Site 9	Hall	1981	100	Red	2081
Lamar County-Graves	Lamar	1992	25	Sulphur	2017
Langford Creek WS NRCS Site 1	Red River	1966	50	Sulphur	2016
Langford Creek WS NRCS Site 10	Red River	1960	50	Sulphur	2010
Langford Creek WS NRCS Site 11	Red River	1960	50	Sulphur	2010
Langford Creek WS NRCS Site 12	Red River	1961	50	Sulphur	2011
Langford Creek WS NRCS Site 13	Red River	1963	50	Sulphur	2013
Langford Creek WS NRCS Site 14	Red River	1963	50	Sulphur	2013
Langford Creek WS NRCS Site 2	Red River	1963	50	Sulphur	2013
Langford Creek WS NRCS Site 3	Red River	1960	50	Sulphur	2010
Langford Creek WS NRCS Site 4	Red River	1960	50	Sulphur	2010

Langford Creek WS NRCS Site 7	Red River	1961	50	Sulphur	2011
Langford Creek WS NRCS Site 8	Red River	1960	50	Sulphur	2010
Lauderdale Gss	Burleson	1984	25	Brazos	2009
Leona River WS NRCS Site 1	Uvalde	1986	100	Nueces	2086
Leona River WS NRCS Site 2A	Uvalde	1986	100	Nueces	2086
Leona River WS NRCS Site 3	Uvalde	1983	100	Nueces	2083
Line Branch-17	Red River	1980	25	Sulphur	2005
Line Branch-1A	Red River	1979	25		2004
Line Branch-20	Red River	1978	25		2003
Line Branch-21	Red River	1978	25		2003
Little Elm & Laterals WS NRCS Site 1	Grayson	1966	50	Trinity	2016
Little Elm & Laterals WS NRCS Site 10	Grayson	1966	50	Trinity	2016
Little Elm & Laterals WS NRCS Site 11	Collin	1971	50	Trinity	2021
Little Elm & Laterals WS NRCS Site 12	Collin	1971	50	Trinity	2021
Little Elm & Laterals WS NRCS Site 16	Collin	1976	50	Trinity	2026
Little Elm & Laterals WS NRCS Site 17	Denton	1971	50	Trinity	2021
Little Elm & Laterals WS NRCS Site 18A	Collin	1970	50	Trinity	2020
Little Elm & Laterals WS NRCS Site 19	Collin	1970	50	Trinity	2020
Little Elm & Laterals WS NRCS Site 2	Grayson	1966	50	Trinity	2016
Little Elm & Laterals WS NRCS Site 20	Collin	1970	50	Trinity	2020
Little Elm & Laterals WS NRCS Site 3	Grayson	1966	50	Trinity	2016
Little Elm & Laterals WS NRCS Site 4	Grayson	1966	50	Trinity	2016
Little Elm & Laterals WS NRCS Site 5	Grayson	1966	50	Trinity	2016
Little Elm & Laterals WS NRCS Site 6	Grayson	1966	50	Trinity	2016
Little Elm & Laterals WS NRCS Site 7	Grayson	1966	50	Trinity	2016
Little Elm & Laterals WS NRCS Site 8B	Collin	1971	50	Trinity	2021
Little Elm & Laterals WS NRCS Site 9	Collin	1971	50	Trinity	2021

Logan Slough Creek WS NRCS Site 1	Lamar	1967	100	Red	2067
Logan Slough Creek WS NRCS Site 2	Lamar	1965	100	Red	2065
Logan Slough Creek WS NRCS Site 3	Lamar	1965	100	Red	2065
Lower Brushy Creek WS NRCS Site 10	Williamson	1963	50	Brazos	2013
Lower Brushy Creek WS NRCS Site 12	Williamson	1966	50	Brazos	2016
Lower Brushy Creek WS NRCS Site 13	Williamson	1960	50	Brazos	2010
Lower Brushy Creek WS NRCS Site 17	Williamson	1963	50	Brazos	2013
Lower Brushy Creek WS NRCS Site 18	Williamson	1963	50	Brazos	2013
Lower Brushy Creek WS NRCS Site 2	Williamson	1960	50	Brazos	2010
Lower Brushy Creek WS NRCS Site 20	Williamson	1965	50	Brazos	2015
Lower Brushy Creek WS NRCS Site 21	Williamson	1960	50	Brazos	2010
Lower Brushy Creek WS NRCS Site 22	Williamson	1961	50	Brazos	2011
Lower Brushy Creek WS NRCS Site 23	Williamson	1961	50	Brazos	2011
Lower Brushy Creek WS NRCS Site 24	Milam	1964	50	Brazos	2014
Lower Brushy Creek WS NRCS Site 3	Williamson	1960	50	Brazos	2010
Lower Brushy Creek WS NRCS Site 4A	Williamson	1961	50	Brazos	2011
Lower Brushy Creek WS NRCS Site 6	Williamson	1964	50	Brazos	2014
Lower Brushy Creek WS NRCS Site 7	Williamson	1960	50	Brazos	2010
Lower Brushy Creek WS NRCS Site 8	Williamson	1960	50	Brazos	2010
Lower Brushy Creek WS NRCS Site 9	Williamson	1966	50	Brazos	2016
Lower East Fork Laterals Murphy Lake	Kaufman	1954	50	Trinity	2004
Lower East Fork Laterals NRCS Site 1	Kaufman	1954	50	Trinity	2004
Lower East Fork Laterals NRCS Site 10	Kaufman	1953	50	Trinity	2003

Lower East Fork Laterals NRCS Site 11	Kaufman	1953	50	Trinity	2003
Lower East Fork Laterals NRCS Site 12	Kaufman	1953	50	Trinity	2003
Lower East Fork Laterals NRCS Site 2	Kaufman	1954	50	Trinity	2004
Lower East Fork Laterals NRCS Site 3	Kaufman	1953	50	Trinity	2003
Lower East Fork Laterals NRCS Site 4	Kaufman	1953	50	Trinity	2003
Lower East Fork Laterals NRCS Site 5	Kaufman	1953	50	Trinity	2003
Lower East Fork Laterals NRCS Site 6	Kaufman	1953	50	Trinity	2003
Lower East Fork Laterals NRCS Site 7	Kaufman	1953	50	Trinity	2003
Lower East Fork Laterals NRCS Site 8	Kaufman	1953	50	Trinity	2003
Lower East Fork Laterals NRCS Site 9	Kaufman	1953	50	Trinity	2003
Lower Plum Creek WS NRCS Site 23	Caldwell	1973	50	Guadalupe	2023
Lower Plum Creek WS NRCS Site 24	Caldwell	1969	50	Guadalupe	2019
Lower Plum Creek WS NRCS Site 26	Caldwell	1969	50	Guadalupe	2019
Lower Plum Creek WS NRCS Site 27	Caldwell	1975	50	Guadalupe	2025
Lower Plum Creek WS NRCS Site 28	Caldwell	1963	50	Guadalupe	2013
Lower Plum Creek WS NRCS Site 29	Caldwell	1971	50	Guadalupe	2021
Lower Plum Creek WS NRCS Site 31	Caldwell	1966	50	Guadalupe	2016
Lower Plum Creek WS NRCS Site 34	Caldwell	1965	50	Guadalupe	2015
Lower Plum Creek WS NRCS Site 37	Caldwell	1975	50	Guadalupe	2025
Lower Plum Creek WS NRCS Site 38	Caldwell	1976	50	Guadalupe	2026
Lower Running Wtr Draw NRCS Site 1	Castro	1980	100	Brazos	2080
Lower Running Wtr Draw NRCS Site 2	Hale	1977	100	Brazos	2077
Lower Running Wtr Draw NRCS Site 3	Hale	1982	100	Brazos	2082

Lower Running Wtr Draw NRCS Site 4	Hale	1976	100	Brazos	2076
Lower San Saba River WS NRCS Site 1	McCulloch	1959	50	Colorado	2009
Lower San Saba River WS NRCS Site 10	San Saba	1958	50	Colorado	2008
Lower San Saba River WS NRCS Site 11	San Saba	1958	50	Colorado	2008
Lower San Saba River WS NRCS Site 12	San Saba	1960	50	Colorado	2010
Lower San Saba River WS NRCS Site 13A	San Saba	1980	50	Colorado	2030
Lower San Saba River WS NRCS Site 14A	San Saba	1973	50	Colorado	2023
Lower San Saba River WS NRCS Site 15	San Saba	1969	50	Colorado	2019
Lower San Saba River WS NRCS Site 16	San Saba	1973	50	Colorado	2023
Lower San Saba River WS NRCS Site 2	San Saba	1960	50	Colorado	2010
Lower San Saba River WS NRCS Site 3	San Saba	1958	50	Colorado	2008
Lower San Saba River WS NRCS Site 4	San Saba	1958	50	Colorado	2008
Lower San Saba River WS NRCS Site 5	San Saba	1959	50	Colorado	2009
Lower San Saba River WS NRCS Site 6	San Saba	1959	50	Colorado	2009
Lower San Saba River WS NRCS Site 7	San Saba	1959	50	Colorado	2009
Lower San Saba River WS NRCS Site 8	San Saba	1958	50	Colorado	2008
Lower San Saba River WS NRCS Site 9	San Saba	1960	50	Colorado	2010
Lyons Gss	Brazos	1985	25	Brazos	2010
Macho Arroyo WS NRCS Site 1	Hudspeth	1962	50	Rio Grande	2012
Madden Arroyo WS NRCS Site 1	Hudspeth	1962	50	Rio Grande	2012
Martinez Creek WS NRCS Site 1	Bexar	1964	50	San Antonio	2014
Martinez Creek WS NRCS Site 2	Bexar	1964	50	San Antonio	2014
Martinez Creek WS NRCS Site 3	Bexar	1964	50	San Antonio	2014
Martinez Creek WS NRCS Site 4	Bexar	1964	50	San Antonio	2014

Martinez Creek WS NRCS Site 5	Bexar	1964	50	San Antonio	2014
Martinez Creek WS NRCS Site 6A	Bexar	1966	50	San Antonio	2016
Mcclellan Cr WS NRCS Site 10	Gray	1984	100	Red	2084
Mcclellan Cr WS NRCS Site 11	Gray	1982	100	Red	2082
Mcclellan Cr WS NRCS Site 12	Gray	1982	100	Red	2082
Mcclellan Cr WS NRCS Site 13	Gray	1980	100	Red	2080
Mcclellan Cr WS NRCS Site 2	Gray	1982	100	Red	2082
Mcclellan Cr WS NRCS Site 3	Gray	1982	100	Red	2082
Mcclellan Cr WS NRCS Site 4	Gray	1984	100	Red	2084
Mcclellan Cr WS NRCS Site 5	Gray	1984	100	Red	2084
Mcclellan Cr WS NRCS Site 6A	Gray	1987	100	Red	2087
Mcclellan Cr WS NRCS Site 7	Gray	1987	100	Red	2087
Mcclellan Cr WS NRCS Site 8	Gray	1982	100	Red	2082
Mcclellan Cr WS NRCS Site 9	Gray	1982	100	Red	2082
Mcclellan Creek WS NRCS Site 1	Carson	1979	100	Red	2079
Mccormick Dam	Lamar	1980	25	Sulphur	2005
Mcgowen Gss 2	Hardeman	1990	25	Red	2015
Mill Creek WS NRCS Site 1	Van Zandt	1976	100	Sabine	2076
Mimms Draw WS NRCS Site 1	Presidio	1961	50	Rio Grande	2011
Mountain Creek WS NRCS Site 10	Ellis	1956	50	Trinity	2006
Mountain Creek WS NRCS Site 11	Ellis	1957	50	Trinity	2007
Mountain Creek WS NRCS Site 9	Ellis	1957	50	Trinity	2007
Mukewater Creek WS NRCS Site 1	Coleman	1961	50	Colorado	2011
Mukewater Creek WS NRCS Site 10A	Coleman	1965	50	Colorado	2015
Mukewater Creek WS NRCS Site 2	Coleman	1963	50	Colorado	2013
Mukewater Creek WS NRCS Site 3	Coleman	1963	50	Colorado	2013
Mukewater Creek WS NRCS Site 4	Coleman	1961	50	Colorado	2011
Mukewater Creek WS NRCS Site 5	Coleman	1961	50	Colorado	2011

Mukewater Creek WS NRCS Site 5-A	Coleman	1961	50	Colorado	2011
Mukewater Creek WS NRCS Site 6	Coleman	1961	50	Colorado	2011
Mukewater Creek WS NRCS Site 7	Brown	1960	50	Colorado	2010
Mukewater Creek WS NRCS Site 9	Coleman	1960	50	Colorado	2010
Mustang Creek WS NRCS Site 1	Concho	1961	50	Colorado	2011
Mustang Creek WS NRCS Site 10	Concho	1961	50	Colorado	2011
Mustang Creek WS NRCS Site 2	Concho	1960	50	Colorado	2010
Mustang Creek WS NRCS Site 3	Concho	1961	50	Colorado	2011
Mustang Creek WS NRCS Site 4	Concho	1961	50	Colorado	2011
Mustang Creek WS NRCS Site 5 (East Dam)	Concho	1962	50		2012
Mustang Creek WS NRCS Site 5 (West Dam)	Concho	1962	50	Colorado	2012
Mustang Creek WS NRCS Site 6	Concho	1962	50	Colorado	2012
Mustang Creek WS NRCS Site 7	Concho	1961	50	Colorado	2011
Mustang Creek WS NRCS Site 8	Concho	1961	50	Colorado	2011
Mustang Creek WS NRCS Site 9	Concho	1961	50	Colorado	2011
Ne Trib Leon Riv WS NRCS Site 1	Erath	1968	50	Brazos	2018
Ne Trib Leon Riv WS NRCS Site 10	Erath	1964	50	Brazos	2014
Ne Trib Leon Riv WS NRCS Site 11	Erath	1964	50	Brazos	2014
Ne Trib Leon Riv WS NRCS Site 12	Erath	1967	50	Brazos	2017
Ne Trib Leon Riv WS NRCS Site 13	Erath	1964	50	Brazos	2014
Ne Trib Leon Riv WS NRCS Site 14	Erath	1964	50	Brazos	2014
Ne Trib Leon Riv WS NRCS Site 15	Erath	1964	50	Brazos	2014
Ne Trib Leon Riv WS NRCS Site 16	Erath	1966	50	Brazos	2016

Ne Trib Leon Riv WS NRCS Site 17	Erath	1966	50	Brazos	2016
Ne Trib Leon Riv WS NRCS Site 18	Erath	1965	50	Brazos	2015
Ne Trib Leon Riv WS NRCS Site 19	Erath	1967	50	Brazos	2017
Ne Trib Leon Riv WS NRCS Site 2	Erath	1965	50	Brazos	2015
Ne Trib Leon Riv WS NRCS Site 20	Erath	1965	50	Brazos	2015
Ne Trib Leon Riv WS NRCS Site 21	Comanche	1965	50	Brazos	2015
Ne Trib Leon Riv WS NRCS Site 22	Comanche	1966	50	Brazos	2016
Ne Trib Leon Riv WS NRCS Site 23	Comanche	1966	50	Brazos	2016
Ne Trib Leon Riv WS NRCS Site 24	Comanche	1967	50	Brazos	2017
Ne Trib Leon Riv WS NRCS Site 25	Erath	1969	50	Brazos	2019
Ne Trib Leon Riv WS NRCS Site 26	Comanche	1969	50	Brazos	2019
Ne Trib Leon Riv WS NRCS Site 3	Erath	1965	50	Brazos	2015
Ne Trib Leon Riv WS NRCS Site 4	Erath	1967	50	Brazos	2017
Ne Trib Leon Riv WS NRCS Site 5	Erath	1967	50	Brazos	2017
Ne Trib Leon Riv WS NRCS Site 6	Erath	1967	50	Brazos	2017
Ne Trib Leon Riv WS NRCS Site 7	Erath	1968	50	Brazos	2018
Ne Trib Leon Riv WS NRCS Site 8	Erath	1967	50	Brazos	2017
Ne Trib Leon Riv WS NRCS Site 9	Erath	1967	50	Brazos	2017
Nolan Creek WS NRCS Site 1	Bell	1967	100	Brazos	2067
Nolan Creek WS NRCS Site 10	Bell	1968	100	Brazos	2068
Nolan Creek WS NRCS Site 11	Bell	1972	100	Brazos	2072
Nolan Creek WS NRCS Site 12	Bell	1970	100	Brazos	2070
Nolan Creek WS NRCS Site 13	Bell	1970	100	Brazos	2070
Nolan Creek WS NRCS Site 14	Bell	1969	100	Brazos	2069
Nolan Creek WS NRCS Site 15	Bell	1972	100	Brazos	2072
Nolan Creek WS NRCS Site 2	Bell	1961	100	Brazos	2061
Nolan Creek WS NRCS Site 3	Bell	1968	100	Brazos	2068

Nolan Creek WS NRCS Site 5A	Bell	1968	100	Brazos	2068
Nolan Creek WS NRCS Site 7	Bell	1967	100	Brazos	2067
Nolan Creek WS NRCS Site 8	Bell	1967	100	Brazos	2067
Nolan Creek WS NRCS Site 9	Bell	1967	100	Brazos	2067
North Creek WS NRCS Site 13	Jack	1952	50	Trinity	2002
North Creek WS NRCS Site 14	Jack	1970	50	Trinity	2020
North Creek WS NRCS Site 15	Jack	1970	50	Trinity	2020
North Creek WS NRCS Site 16	Jack	1969	50	Trinity	2019
North Creek WS NRCS Site 17	Jack	1972	50	Trinity	2022
North Creek WS NRCS Site 18	Jack	1951	50	Trinity	2001
North Creek WS NRCS Site 19	Jack	1972	50	Trinity	2022
North Creek WS NRCS Site 20	Jack	1974	50	Trinity	2024
North Creek WS NRCS Site 21	Jack	1970	50	Trinity	2020
North Creek WS NRCS Site 22	Jack	1969	50	Trinity	2019
North Creek WS NRCS Site 23	Jack	1969	50	Trinity	2019
North Creek WS NRCS Site 24	Jack	1971	50	Trinity	2021
North Creek WS NRCS Site 25	Jack	1972	50	Trinity	2022
North Creek WS NRCS Site 26	Jack	1970	50	Trinity	2020
North Creek WS NRCS Site 28A	Jack	1972	50	Trinity	2022
North Creek WS NRCS Site 30	Jack	1970	50	Trinity	2020
North Creek WS NRCS Site 31	Jack	1970	50	Trinity	2020
North Cuero WS NRCS Site 1	De Witt	1970	100	Guadalupe	2070
North Cuero WS NRCS Site 2	De Witt	1970	100	Guadalupe	2070
North Trinity Laterals WS NRCS Site 3	Dallas	1969	50	Trinity	2019
North Trinity Laterals WS NRCS Site 4	Dallas	1969	50	Trinity	2019
North Trinity Laterals WS NRCS Site 5	Dallas	1969	50	Trinity	2019
North Trinity Laterals WS NRCS Site 6	Dallas	1969	50	Trinity	2019
Northeast Laterals WS NRCS Site 1	Brown	1971	100	Colorado	2071
Northeast Laterals WS NRCS Site 2	Brown	1971	100	Colorado	2071
Northeast Laterals WS NRCS Site 3	Brown	1971	100	Colorado	2071
Northeast Laterals WS NRCS Site 4	Brown	1972	100	Colorado	2072
Northeast Laterals WS NRCS Site 5	Brown	1972	100	Colorado	2072

Northeast Laterals WS NRCS Site 6	Mills	1971	100	Colorado	2071
Northwest Laterals WS NRCS Site 1	Runnels	1965	50	Colorado	2015
Northwest Laterals WS NRCS Site 10	Coleman	1964	50	Colorado	2014
Northwest Laterals WS NRCS Site 11	Coleman	1964	50	Colorado	2014
Northwest Laterals WS NRCS Site 12	Coleman	1964	50	Colorado	2014
Northwest Laterals WS NRCS Site 13	Coleman	1973	50	Colorado	2023
Northwest Laterals WS NRCS Site 14	Coleman	1964	50	Colorado	2014
Northwest Laterals WS NRCS Site 15	Coleman	1964	50	Colorado	2014
Northwest Laterals WS NRCS Site 18	Coleman	1963	50	Colorado	2013
Northwest Laterals WS NRCS Site 19	Coleman	1963	50	Colorado	2013
Northwest Laterals WS NRCS Site 2	Coleman	1964	50	Colorado	2014
Northwest Laterals WS NRCS Site 20	Coleman	1970	50	Colorado	2020
Northwest Laterals WS NRCS Site 3	Coleman	1970	50	Colorado	2020
Northwest Laterals WS NRCS Site 5A	Coleman	1971	50	Colorado	2021
Northwest Laterals WS NRCS Site 6	Coleman	1963	50	Colorado	2013
Northwest Laterals WS NRCS Site 7	Coleman	1963	50	Colorado	2013
Northwest Laterals WS NRCS Site 8	Coleman	1963	50	Colorado	2013
Northwest Laterals WS NRCS Site 9	Coleman	1964	50	Colorado	2014
Olmitos & Garcias Crks WS NRCS Site 1	Starr	1962	50	Rio Grande	2012
Olmitos & Garcias Crks WS NRCS Site 2	Starr	1963	50	Rio Grande	2013
Olmitos & Garcias Crks WS NRCS Site 3	Starr	1963	50	Rio Grande	2013
Olmitos & Garcias Crks WS NRCS Site 4	Starr	1962	50	Rio Grande	2012
Olmitos & Garcias Crks WS NRCS Site 5	Starr	1963	50	Rio Grande	2013

Olmitos & Garcias Crks WS NRCS Site 6	Starr	1962	50	Rio Grande	2012
Olmitos & Garcias Crks WS NRCS Site 7	Starr	1963	50	Rio Grande	2013
Paluxy River WS NRCS Site 1	Erath	1984	100	Brazos	2084
Paluxy River WS NRCS Site 10	Erath	1989	100	Brazos	2089
Paluxy River WS NRCS Site 11	Erath	1980	100	Brazos	2080
Paluxy River WS NRCS Site 12	Erath	1985	100	Brazos	2085
Paluxy River WS NRCS Site 14	Erath	1980	100	Brazos	2080
Paluxy River WS NRCS Site 15	Erath	1983	100	Brazos	2083
Paluxy River WS NRCS Site 16	Hood	1980	100	Brazos	2080
Paluxy River WS NRCS Site 19	Erath	1981	100	Brazos	2081
Paluxy River WS NRCS Site 2	Erath	1982	100	Brazos	2082
Paluxy River WS NRCS Site 20	Erath	1981	100	Brazos	2081
Paluxy River WS NRCS Site 21	Erath	1982	100	Brazos	2082
Paluxy River WS NRCS Site 23	Somervell	1984	100	Brazos	2084
Paluxy River WS NRCS Site 25	Somervell	1983	100	Brazos	2083
Paluxy River WS NRCS Site 3	Erath	1987	100	Brazos	2087
Paluxy River WS NRCS Site 4	Erath	1980	100	Brazos	2080
Paluxy River WS NRCS Site 5	Erath	1988	100	Brazos	2088
Paluxy River WS NRCS Site 6	Erath	1980	100	Brazos	2080
Paluxy River WS NRCS Site 8	Erath	1984	100	Brazos	2084
Paluxy River WS NRCS Site 9	Erath	1984	100	Brazos	2084
Pecan Creek WS NRCS Site 2	Hamilton	1977	100	Brazos	2077
Pecan Creek WS NRCS Site 3	Hamilton	1975	100	Brazos	2075
Pecan Creek WS NRCS Site 4	Hamilton	1980	100	Brazos	2080
Pecan Creek WS NRCS Site 5	Hamilton	1975	100	Brazos	2075
Pilot Grove Creek WS NRCS Site 10	Grayson	1967	50	Trinity	2017
Pilot Grove Creek WS NRCS Site 11	Grayson	1967	50	Trinity	2017
Pilot Grove Creek WS NRCS Site 15	Grayson	1987	50	Trinity	2037
Pilot Grove Creek WS NRCS Site 16A	Grayson	1987	50	Trinity	2037
Pilot Grove Creek WS NRCS Site 28	Collin	1964	50	Trinity	2014
Pilot Grove Creek WS NRCS Site 29	Collin	1964	50	Trinity	2014
Pilot Grove Creek WS NRCS Site 3	Grayson	1967	50	Trinity	2017
Pilot Grove Creek WS NRCS Site 30	Grayson	1966	50	Trinity	2016

Pilot Grove Creek WS NRCS Site 31A	Grayson	1966	50	Trinity	2016
Pilot Grove Creek WS NRCS Site 33	Collin	1966	50	Trinity	2016
Pilot Grove Creek WS NRCS Site 38	Fannin	1970	50	Trinity	2020
Pilot Grove Creek WS NRCS Site 39	Fannin	1970	50	Trinity	2020
Pilot Grove Creek WS NRCS Site 3A	Grayson	1967	50	Trinity	2017
Pilot Grove Creek WS NRCS Site 40	Fannin	1969	50	Trinity	2019
Pilot Grove Creek WS NRCS Site 43	Collin	1969	50	Trinity	2019
Pilot Grove Creek WS NRCS Site 44A	Collin	1974	50	Trinity	2024
Pilot Grove Creek WS NRCS Site 45	Fannin	1963	50	Trinity	2013
Pilot Grove Creek WS NRCS Site 46	Fannin	1963	50	Trinity	2013
Pilot Grove Creek WS NRCS Site 47	Fannin	1963	50	Trinity	2013
Pilot Grove Creek WS NRCS Site 48	Collin	1963	50	Trinity	2013
Pilot Grove Creek WS NRCS Site 49	Collin	1963	50	Trinity	2013
Pilot Grove Creek WS NRCS Site 4A	Grayson	1967	50	Trinity	2017
Pilot Grove Creek WS NRCS Site 4B	Grayson	1967	50	Trinity	2017
Pilot Grove Creek WS NRCS Site 50	Collin	1963	50	Trinity	2013
Pilot Grove Creek WS NRCS Site 51	Fannin	1981	50	Trinity	2031
Pilot Grove Creek WS NRCS Site 54Rev	Hunt	1988	50	Trinity	2038
Pilot Grove Creek WS NRCS Site 58	Collin	1981	50	Trinity	2031
Pilot Grove Creek WS NRCS Site 59	Hunt	1970	50	Trinity	2020
Pilot Grove Creek WS NRCS Site 60	Hunt	1970	50	Trinity	2020
Pilot Grove Creek WS NRCS Site 61	Hunt	1970	50	Trinity	2020
Pilot Grove Creek WS NRCS Site 62	Hunt	1971	50	Trinity	2021

Pilot Grove Creek WS NRCS Site 63	Hunt	1970	50	Trinity	2020
Pilot Grove Creek WS NRCS Site 64A	Hunt	1977	50	Trinity	2027
Pilot Grove Creek WS NRCS Site 65	Hunt	1977	50	Trinity	2027
Pilot Grove Creek WS NRCS Site 67	Hunt	1975	50	Trinity	2025
Pilot Grove Creek WS NRCS Site 68B	Hunt	1995	50	Trinity	2045
Pilot Grove Creek WS NRCS Site 69	Hunt	1975	50	Trinity	2025
Pilot Grove Creek WS NRCS Site 7	Grayson	1967	50	Trinity	2017
Pilot Grove Creek WS NRCS Site 70	Collin	1975	50	Trinity	2025
Pilot Grove Creek WS NRCS Site 71	Collin	1975	50	Trinity	2025
Pilot Grove Creek WS NRCS Site 73	Collin	1965	50	Trinity	2015
Pilot Grove Creek WS NRCS Site 75	Collin	1965	50	Trinity	2015
Pilot Grove Creek WS NRCS Site 76	Collin	1965	50	Trinity	2015
Pilot Grove Creek WS NRCS Site 77	Collin	1965	50	Trinity	2015
Pilot Grove Creek WS NRCS Site 79	Collin	1965	50	Trinity	2015
Pilot Grove Creek WS NRCS Site 8	Grayson	1967	50	Trinity	2017
Pilot Grove Creek WS NRCS Site 80	Collin	1965	50	Trinity	2015
Pilot Grove Creek WS NRCS Site 82	Collin	1966	50	Trinity	2016
Pilot Grove Creek WS NRCS Site 83A	Collin	1967	50	Trinity	2017
Pilot Grove Creek WS NRCS Site 85A	Collin	1966	50	Trinity	2016
Pilot Grove Creek WS NRCS Site 85B	Collin	1966	50	Trinity	2016
Pilot Grove Creek WS NRCS Site 9	Grayson	1967	50	Trinity	2017
Pine Creek WS NRCS Site 10	Lamar	1969	100	Red	2069
Pine Creek WS NRCS Site 12	Lamar	1966	100	Red	2066
Pine Creek WS NRCS Site 13	Lamar	1967	100	Red	2067
Pine Creek WS NRCS Site 14	Lamar	1967	100	Red	2067

Pine Creek WS NRCS Site 15	Lamar	1969	100	Red	2069
Pine Creek WS NRCS Site 16	Lamar	1967	100	Red	2067
Pine Creek WS NRCS Site 17	Lamar	1970	100	Red	2070
Pine Creek WS NRCS Site 18	Lamar	1970	100	Red	2070
Pine Creek WS NRCS Site 3	Lamar	1966	100	Red	2066
Pine Creek WS NRCS Site 5	Lamar	1975	100	Red	2075
Pine Creek WS NRCS Site 7	Lamar	1966	100	Red	2066
Pine Creek WS NRCS Site 8	Lamar	1969	100	Red	2069
Pine Creek WS NRCS Site 9A	Lamar	1969	100	Red	2069
Plum Creek WS NRCS Site 1	Hays	1966	50	Guadalupe	2016
Plum Creek WS NRCS Site 10	Hays	1963	50	Guadalupe	2013
Plum Creek WS NRCS Site 11	Hays	1962	50	Guadalupe	2012
Plum Creek WS NRCS Site 12	Hays	1963	50	Guadalupe	2013
Plum Creek WS NRCS Site 14	Caldwell	1968	50	Guadalupe	2018
Plum Creek WS NRCS Site 15	Caldwell	1963	50	Guadalupe	2013
Plum Creek WS NRCS Site 16	Hays	1975	50	Guadalupe	2025
Plum Creek WS NRCS Site 17	Caldwell	1969	50	Guadalupe	2019
Plum Creek WS NRCS Site 18	Caldwell	1964	50	Guadalupe	2014
Plum Creek WS NRCS Site 2	Hays	1969	50	Guadalupe	2019
Plum Creek WS NRCS Site 20	Caldwell	1965	50	Guadalupe	2015
Plum Creek WS NRCS Site 21	Caldwell	1962	50	Guadalupe	2012
Plum Creek WS NRCS Site 3	Hays	1962	50	Guadalupe	2012
Plum Creek WS NRCS Site 4	Hays	1962	50	Guadalupe	2012
Plum Creek WS NRCS Site 5	Hays	1963	50	Guadalupe	2013
Plum Creek WS NRCS Site 6	Hays	1967	50	Guadalupe	2017
Plum Creek WS NRCS Site 7	Hays	1975	50	Guadalupe	2025
Plum Creek WS NRCS Site 8	Caldwell	1973	50	Guadalupe	2023
Pollard Creek WS NRCS Site 1A	Palo Pinto	1984	100	Brazos	2084
Pollard Creek WS NRCS Site 2	Palo Pinto	1983	100	Brazos	2083
Rc&D Site 7	Hemphill	1985	25	Canadian	2010
Red Deer Creek WS NRCS Site 11	Roberts	1993	100	Canadian	2093
Red Deer Creek WS NRCS Site 13	Roberts	1993	100	Canadian	2093
Red Deer Creek WS NRCS Site 14	Roberts	1989	100	Canadian	2089
Red Deer Creek WS NRCS Site 5	Roberts	1994	100	Canadian	2094
Restino/Flowers Gss	Robertson	1983	25	Brazos	2008
Richland Creek WS NRCS Site 1	Hill	1963	50	Trinity	2013

Richland Creek WS NRCS Site 10	Limestone	1957	50	Trinity	2007
Richland Creek WS NRCS Site 100A	Navarro	1972	50	Trinity	2022
Richland Creek WS NRCS Site 101	Navarro	1971	50	Trinity	2021
Richland Creek WS NRCS Site 105	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 106A	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 107A	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 107B	Navarro	1986	50	Trinity	2036
Richland Creek WS NRCS Site 108	Navarro	1971	50	Trinity	2021
Richland Creek WS NRCS Site 109	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 110	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 111	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 112	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 113	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 114	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 115	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 116	Navarro	1970	50	Trinity	2020
Richland Creek WS NRCS Site 118	Navarro	1973	50	Trinity	2023
Richland Creek WS NRCS Site 119A	Navarro	1963	50	Trinity	2013
Richland Creek WS NRCS Site 12	Navarro	1966	50	Trinity	2016
Richland Creek WS NRCS Site 120	Navarro	1963	50	Trinity	2013
Richland Creek WS NRCS Site 121	Navarro	1963	50	Trinity	2013
Richland Creek WS NRCS Site 123	Navarro	1963	50	Trinity	2013
Richland Creek WS NRCS Site 124	Navarro	1963	50	Trinity	2013

Richland Creek WS NRCS Site 126	Navarro	1963	50	Trinity	2013
Richland Creek WS NRCS Site 127	Navarro	1963	50	Trinity	2013
Richland Creek WS NRCS Site 129	Navarro	1961	50	Trinity	2011
Richland Creek WS NRCS Site 13	Limestone	1962	50	Trinity	2012
Richland Creek WS NRCS Site 134	Navarro	1974	50	Trinity	2024
Richland Creek WS NRCS Site 135A	Navarro	1974	50	Trinity	2024
Richland Creek WS NRCS Site 135B	Navarro	1974	50	Trinity	2024
Richland Creek WS NRCS Site 135D	Navarro	1974	50	Trinity	2024
Richland Creek WS NRCS Site 136 Rev	Navarro	1977	50	Trinity	2027
Richland Creek WS NRCS Site 137A	Navarro	1971	50	Trinity	2021
Richland Creek WS NRCS Site 137G	Navarro	1971	50	Trinity	2021
Richland Creek WS NRCS Site 138	Navarro	1973	50	Trinity	2023
Richland Creek WS NRCS Site 14	Navarro	1965	50	Trinity	2015
Richland Creek WS NRCS Site 140	Navarro	1971	50	Trinity	2021
Richland Creek WS NRCS Site 143A	Navarro	1979	50	Trinity	2029
Richland Creek WS NRCS Site 14A	Navarro	1964	50	Trinity	2014
Richland Creek WS NRCS Site 15	Navarro	1963	50	Trinity	2013
Richland Creek WS NRCS Site 16	Limestone	1962	50	Trinity	2012
Richland Creek WS NRCS Site 16A	Limestone	1963	50	Trinity	2013
Richland Creek WS NRCS Site 17	Limestone	1962	50	Trinity	2012
Richland Creek WS NRCS Site 18	Limestone	1963	50	Trinity	2013
Richland Creek WS NRCS Site 19	Limestone	1957	50	Trinity	2007
Richland Creek WS NRCS Site 2	Hill	1963	50	Trinity	2013

Richland Creek WS NRCS Site 20	Limestone	1956	50	Trinity	2006
Richland Creek WS NRCS Site 20A	Limestone	1958	50	Trinity	2008
Richland Creek WS NRCS Site 21	Limestone	1956	50	Trinity	2006
Richland Creek WS NRCS Site 22	Limestone	1956	50	Trinity	2006
Richland Creek WS NRCS Site 23	Limestone	1958	50	Trinity	2008
Richland Creek WS NRCS Site 24	Limestone	1956	50	Trinity	2006
Richland Creek WS NRCS Site 25	Limestone	1958	50	Trinity	2008
Richland Creek WS NRCS Site 26	Navarro	1962	50	Trinity	2012
Richland Creek WS NRCS Site 26A	Navarro	1962	50	Trinity	2012
Richland Creek WS NRCS Site 29	Navarro	1964	50	Trinity	2014
Richland Creek WS NRCS Site 3	Hill	1963	50	Trinity	2013
Richland Creek WS NRCS Site 30	Navarro	1962	50	Trinity	2012
Richland Creek WS NRCS Site 31	Navarro	1963	50	Trinity	2013
Richland Creek WS NRCS Site 32	Navarro	1962	50	Trinity	2012
Richland Creek WS NRCS Site 33	Navarro	1962	50	Trinity	2012
Richland Creek WS NRCS Site 34	Navarro	1962	50	Trinity	2012
Richland Creek WS NRCS Site 35	Navarro	1962	50	Trinity	2012
Richland Creek WS NRCS Site 36 Rev.	Navarro	1979	50	Trinity	2029
Richland Creek WS NRCS Site 37	Hill	1961	50	Trinity	2011
Richland Creek WS NRCS Site 38	Hill	1961	50	Trinity	2011
Richland Creek WS NRCS Site 39	Hill	1962	50	Trinity	2012
Richland Creek WS NRCS Site 4	Limestone	1964	50	Trinity	2014
Richland Creek WS NRCS Site 40	Hill	1962	50	Trinity	2012

Richland Creek WS NRCS Site 41	Hill	1962	50	Trinity	2012
Richland Creek WS NRCS Site 42	Hill	1963	50	Trinity	2013
Richland Creek WS NRCS Site 44	Ellis	1961	50	Trinity	2011
Richland Creek WS NRCS Site 45	Hill	1961	50	Trinity	2011
Richland Creek WS NRCS Site 46	Hill	1961	50	Trinity	2011
Richland Creek WS NRCS Site 47	Navarro	1961	50	Trinity	2011
Richland Creek WS NRCS Site 48	Hill	1961	50	Trinity	2011
Richland Creek WS NRCS Site 49	Hill	1961	50	Trinity	2011
Richland Creek WS NRCS Site 4A	Limestone	1963	50	Trinity	2013
Richland Creek WS NRCS Site 5	Limestone	1963	50	Trinity	2013
Richland Creek WS NRCS Site 50	Hill	1968	50	Trinity	2018
Richland Creek WS NRCS Site 51	Hill	1963	50	Trinity	2013
Richland Creek WS NRCS Site 52	Hill	1963	50	Trinity	2013
Richland Creek WS NRCS Site 53	Hill	1963	50	Trinity	2013
Richland Creek WS NRCS Site 54	Hill	1963	50	Trinity	2013
Richland Creek WS NRCS Site 55	Hill	1963	50	Trinity	2013
Richland Creek WS NRCS Site 56	Hill	1963	50	Trinity	2013
Richland Creek WS NRCS Site 57	Hill	1964	50	Trinity	2014
Richland Creek WS NRCS Site 58	Hill	1963	50	Trinity	2013
Richland Creek WS NRCS Site 59	Hill	1964	50	Trinity	2014
Richland Creek WS NRCS Site 6	Hill	1964	50	Trinity	2014
Richland Creek WS NRCS Site 60	Hill	1964	50	Trinity	2014
Richland Creek WS NRCS Site 61	Hill	1965	50	Trinity	2015

Richland Creek WS NRCS Site 62	Hill	1965	50	Trinity	2015
Richland Creek WS NRCS Site 63	Hill	1965	50	Trinity	2015
Richland Creek WS NRCS Site 65	Hill	1977	50	Trinity	2027
Richland Creek WS NRCS Site 66	Hill	1964	50	Trinity	2014
Richland Creek WS NRCS Site 68	Hill	1975	50	Trinity	2025
Richland Creek WS NRCS Site 6A	Hill	1964	50	Trinity	2014
Richland Creek WS NRCS Site 7	Limestone	1963	50	Trinity	2013
Richland Creek WS NRCS Site 70	Hill	1981	50	Trinity	2031
Richland Creek WS NRCS Site 71A	Hill	1979	50	Trinity	2029
Richland Creek WS NRCS Site 72	Hill	1975	50	Trinity	2025
Richland Creek WS NRCS Site 78	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 8	Limestone	1959	50	Trinity	2009
Richland Creek WS NRCS Site 80	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 81	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 82	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 83	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 86	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 87A	Hill	1981	50	Trinity	2031
Richland Creek WS NRCS Site 88	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 89	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 90	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 91A	Hill	1979	50	Trinity	2029
Richland Creek WS NRCS Site 92A	Hill	1977	50	Trinity	2027

Richland Creek WS NRCS Site 92B	Hill	1986	50	Trinity	2036
Richland Creek WS NRCS Site 92C	Hill	1979	50	Trinity	2029
Richland Creek WS NRCS Site 93	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 94	Hill	1974	50	Trinity	2024
Richland Creek WS NRCS Site 98A	Navarro	1972	50	Trinity	2022
Richland Creek WS NRCS Site 99	Navarro	1971	50	Trinity	2021
Richland Creek WS NRCS Site 9A	Limestone	1959	50	Trinity	2009
Richland Creek WS NRCS Site 9B	Limestone	1959	50	Trinity	2009
Richland Creek WS NRCS Site 9C	Limestone	1959	50	Trinity	2009
Rosser-Trinidad Laterals NRCS Site 1	Kaufman	1953	50	Trinity	2003
Rosser-Trinidad Laterals NRCS Site 2	Kaufman	1953	50	Trinity	2003
Rowlett Creek WS NRCS Site 10	Dallas	1955	50	Trinity	2005
Rowlett Creek WS NRCS Site 11	Dallas	1955	50	Trinity	2005
Rowlett Creek WS NRCS Site 12	Dallas	1955	50	Trinity	2005
Rowlett Creek WS NRCS Site 4	Collin	1956	50	Trinity	2006
Rowlett Creek WS NRCS Site 5	Collin	1956	50	Trinity	2006
Rowlett Creek WS NRCS Site 7	Collin	1957	50	Trinity	2007
Ruckers Creek WS NRCS Site 1	Hood	1968	100	Brazos	2068
Running Water Draw WS NRCS Site 2	Parmer	1974	100	Brazos	2074
Running Water Draw WS NRCS Site 3	Parmer	1979	100	Brazos	2079
Rush Creek WS NRCS Site 1	Comanche	1980	100	Brazos	2080
Rush Creek WS NRCS Site 10	Comanche	1973	100	Brazos	2073
Rush Creek WS NRCS Site 11	Comanche	1973	100	Brazos	2073
Rush Creek WS NRCS Site 12	Comanche	1969	100	Brazos	2069
Rush Creek WS NRCS Site 13	Comanche	1970	100	Brazos	2070
Rush Creek WS NRCS Site 14	Comanche	1971	100	Brazos	2071

Rush Creek WS NRCS Site 2	Comanche	1980	100	Brazos	2080
Rush Creek WS NRCS Site 4	Comanche	1975	100	Brazos	2075
Rush Creek WS NRCS Site 5	Comanche	1970	100	Brazos	2070
Rush Creek WS NRCS Site 7	Comanche	1972	100	Brazos	2072
Rush Creek WS NRCS Site 9	Comanche	1971	100	Brazos	2071
Salado Creek WS NRCS Site 1	Bexar	1975	100	San Antonio	2075
Salado Creek WS NRCS Site 10	Bexar	1994	100	San Antonio	2094
Salado Creek WS NRCS Site 11	Bexar	1980	100	San Antonio	2080
Salado Creek WS NRCS Site 12	Bexar	1974	100	San Antonio	2074
Salado Creek WS NRCS Site 13A	Bexar	1976	100	San Antonio	2076
Salado Creek WS NRCS Site 13B	Bexar	1975	100	San Antonio	2075
Salado Creek WS NRCS Site 15R	Bexar	2004	100	San Antonio	2104
Salado Creek WS NRCS Site 2	Bexar	1971	100	San Antonio	2071
Salado Creek WS NRCS Site 4	Bexar	1972	100	San Antonio	2072
Salado Creek WS NRCS Site 5	Bexar	1976	100	San Antonio	2076
Salado Creek WS NRCS Site 6	Bexar	1982	100	San Antonio	2082
Salado Creek WS NRCS Site 7	Bexar	1987	100	San Antonio	2087
Salado Creek WS NRCS Site 8	Bexar	1973	100	San Antonio	2073
Salado Creek WS NRCS Site 9	Bexar	1982	100	San Antonio	2082
Salt Cr & Lat WS NRCS Site 1	Wise	1969	100	Trinity	2069
Salt Cr & Lat WS NRCS Site 10	Wise	1967	100	Trinity	2067
Salt Cr & Lat WS NRCS Site 12	Wise	1967	100	Trinity	2067
Salt Cr & Lat WS NRCS Site 13	Wise	1967	100	Trinity	2067
Salt Cr & Lat WS NRCS Site 14	Wise	1975	100	Trinity	2075
Salt Cr & Lat WS NRCS Site 15	Wise	1976	100	Trinity	2076
Salt Cr & Lat WS NRCS Site 2	Wise	1967	100	Trinity	2067
Salt Cr & Lat WS NRCS Site 21	Wise	1967	100	Trinity	2067
Salt Cr & Lat WS NRCS Site 22	Wise	1967	100	Trinity	2067
Salt Cr & Lat WS NRCS Site 4	Wise	1970	100	Trinity	2070
Salt Cr & Lat WS NRCS Site 5	Wise	1968	100	Trinity	2068
Salt Cr & Lat WS NRCS Site 6	Wise	1967	100	Trinity	2067
Salt Cr & Lat WS NRCS Site 7	Wise	1967	100	Trinity	2067
Salt Cr & Lat WS NRCS Site 8	Wise	1971	100	Trinity	2071
Salt Cr & Lat WS NRCS Site 8A	Wise	1972	100	Trinity	2072
Salt Cr & Lat WS NRCS Site 8B	Wise	1972	100	Trinity	2072

Salt Cr & Lat WS NRCS Site 9	Wise	1967	100	Trinity	2067
San Diego-Rosita Creeks WS NRCS Site 1	Duval	1960	50	San Fernando	2010
San Diego-Rosita Creeks WS NRCS Site 10	Duval	1968	50	San Fernando	2018
San Diego-Rosita Creeks WS NRCS Site 11	Duval	1962	50	San Fernando	2012
San Diego-Rosita Creeks WS NRCS Site 2	Duval	1961	50	San Fernando	2011
San Diego-Rosita Creeks WS NRCS Site 3	Duval	1963	50	San Fernando	2013
San Diego-Rosita Creeks WS NRCS Site 4	Duval	1965	50	San Fernando	2015
San Diego-Rosita Creeks WS NRCS Site 5	Duval	1966	50	San Fernando	2016
San Diego-Rosita Creeks WS NRCS Site 7	Duval	1964	50	San Fernando	2014
San Diego-Rosita Creeks WS NRCS Site 8	Duval	1964	50	San Fernando	2014
San Diego-Rosita Creeks WS NRCS Site 9	Duval	1967	50	San Fernando	2017
Sanderson Canyon WS NRCS Site 1	Brewster	1986	100	Rio Grande	2086
Sanderson Canyon WS NRCS Site 10	Terrell	1980	100	Rio Grande	2080
Sanderson Canyon WS NRCS Site 11	Terrell	1986	100	Rio Grande	2086
Sanderson Canyon WS NRCS Site 2	Pecos	1987	100	Rio Grande	2087
Sanderson Canyon WS NRCS Site 3	Pecos	1985	100	Rio Grande	2085
Sanderson Canyon WS NRCS Site 4	Terrell	1986	100	Rio Grande	2086
Sanderson Canyon WS NRCS Site 5	Terrell	1986	100	Rio Grande	2086
Sanderson Canyon WS NRCS Site 6	Terrell	1984	100	Rio Grande	2084
Sanderson Canyon WS NRCS Site 7	Terrell	1980	100	Rio Grande	2080
Sanderson Canyon WS NRCS Site 8	Terrell	1978	100	Rio Grande	2078
Sanderson Canyon WS NRCS Site 9	Terrell	1979	100	Rio Grande	2079
Sister Grove Creek WS NRCS Site 1	Collin	1963	50	Trinity	2013
Sister Grove Creek WS NRCS Site 10	Collin	1953	50	Trinity	2003

Sister Grove Creek WS NRCS Site 11	Collin	1953	50	Trinity	2003
Sister Grove Creek WS NRCS Site 12	Collin	1958	50	Trinity	2008
Sister Grove Creek WS NRCS Site 13	Collin	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 14	Collin	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 15	Collin	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 16	Collin	1965	50	Trinity	2015
Sister Grove Creek WS NRCS Site 17	Collin	1965	50	Trinity	2015
Sister Grove Creek WS NRCS Site 18	Grayson	1958	50	Trinity	2008
Sister Grove Creek WS NRCS Site 19	Grayson	1958	50	Trinity	2008
Sister Grove Creek WS NRCS Site 2	Collin	1960	50	Trinity	2010
Sister Grove Creek WS NRCS Site 20	Grayson	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 21	Grayson	1960	50	Trinity	2010
Sister Grove Creek WS NRCS Site 22	Grayson	1958	50	Trinity	2008
Sister Grove Creek WS NRCS Site 23	Grayson	1960	50	Trinity	2010
Sister Grove Creek WS NRCS Site 24	Grayson	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 25	Grayson	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 27	Grayson	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 28	Grayson	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 29	Grayson	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 3	Collin	1963	50	Trinity	2013
Sister Grove Creek WS NRCS Site 30	Grayson	1958	50	Trinity	2008
Sister Grove Creek WS NRCS Site 31	Grayson	1957	50	Trinity	2007
Sister Grove Creek WS NRCS Site 32	Grayson	1959	50	Trinity	2009

Sister Grove Creek WS NRCS Site 33	Grayson	1957	50	Trinity	2007
Sister Grove Creek WS NRCS Site 34	Grayson	1966	50	Trinity	2016
Sister Grove Creek WS NRCS Site 35	Grayson	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 36	Grayson	1960	50	Trinity	2010
Sister Grove Creek WS NRCS Site 37	Grayson	1960	50	Trinity	2010
Sister Grove Creek WS NRCS Site 38	Grayson	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 4	Collin	1960	50	Trinity	2010
Sister Grove Creek WS NRCS Site 5	Collin	1952	50	Trinity	2002
Sister Grove Creek WS NRCS Site 6	Collin	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 7	Collin	1952	50	Trinity	2002
Sister Grove Creek WS NRCS Site 8	Collin	1959	50	Trinity	2009
Sister Grove Creek WS NRCS Site 9	Collin	1953	50	Trionity	2003
Skeen Dam	Lamar	1986	25	Sulphur	2011
Southeast Laterals WS NRCS Site 1	San Saba	1969	100	Colorado	2069
Southeast Laterals WS NRCS Site 10	San Saba	1969	100	Colorado	2069
Southeast Laterals WS NRCS Site 2	San Saba	1971	100	Colorado	2071
Southeast Laterals WS NRCS Site 3	San Saba	1969	100	Colorado	2069
Southeast Laterals WS NRCS Site 4	San Saba	1968	100	Colorado	2068
Southeast Laterals WS NRCS Site 5	San Saba	1969	100	Colorado	2069
Southeast Laterals WS NRCS Site 6	San Saba	1968	100	Colorado	2068
Southeast Laterals WS NRCS Site 7	San Saba	1971	100	Colorado	2071
Southeast Laterals WS NRCS Site 8A-1	San Saba	1975	100	Colorado	2075
Southeast Laterals WS NRCS Site 9	San Saba	1968	100	Colorado	2068
Southwest Lat WS NRCS Site 2	Concho	1982	100	Colorado	2082

Southwest Lat WS NRCS Site 3	Concho	1982	100	Colorado	2082
Southwest Lat WS NRCS Site 4	Concho	1982	100	Colorado	2082
Southwest Lat WS NRCS Site 5A	Concho	1990	100	Colorado	2090
Southwest Lat WS NRCS Site 5B	Concho	1987	100	Colorado	2087
Southwest Lat WS NRCS Site 6A	McCulloch	1987	100	Colorado	2087
Southwest Lat WS NRCS Site 7	McCulloch	1982	100	Colorado	2082
Stewart-Green Dam (MI-39)	Lamar	1982	25	Sulphur	2007
Stiles Dam	Red River	1982	25		2007
Sulphur Creek WS NRCS Site 1	Lampasas	1959	50	Brazos	2009
Sulphur Creek WS NRCS Site 2	Lampasas	1959	50	Brazos	2009
Sulphur Creek WS NRCS Site 3	Lampasas	1959	50	Brazos	2009
Sulphur Creek WS NRCS Site 4	Burnet	1960	50	Brazos	2010
Sulphur Creek WS NRCS Site 5	Lampasas	1958	50	Brazos	2008
Sulphur Creek WS NRCS Site 6	Lampasas	1961	50	Brazos	2011
Sulphur Creek WS NRCS Site 7	Lampasas	1960	50	Brazos	2010
Sulphur Creek WS NRCS Site 8	Burnet	1961	50	Brazos	2011
Sulphur Creek WS NRCS Site 9	Lampasas	1960	50	Brazos	2010
Tehuacana Creek WS NRCS Gss 101	Hill	1986	50	Brazos	2036
Tehuacana Creek WS NRCS Gss 103	McLennan	1977	50	Brazos	2027
Tehuacana Creek WS NRCS Gss 5-1	Hill	1977	50		2027
Tehuacana Creek WS NRCS Site 1	Hill	1972	50	Brazos	2022
Tehuacana Creek WS NRCS Site 10	McLennan	1969	50	Brazos	2019
Tehuacana Creek WS NRCS Site 11	McLennan	1963	50	Brazos	2013
Tehuacana Creek WS NRCS Site 12	McLennan	1963	50	Brazos	2013

Tehuacana Creek WS NRCS Site 14	McLennan	1963	50	Brazos	2013
Tehuacana Creek WS NRCS Site 15	McLennan	1969	50	Brazos	2019
Tehuacana Creek WS NRCS Site 16	McLennan	1969	50	Brazos	2019
Tehuacana Creek WS NRCS Site 17	McLennan	1973	50	Brazos	2023
Tehuacana Creek WS NRCS Site 18	McLennan	1969	50	Brazos	2019
Tehuacana Creek WS NRCS Site 19	Limestone	1966	50	Brazos	2016
Tehuacana Creek WS NRCS Site 1A	Hill	1972	50	Brazos	2022
Tehuacana Creek WS NRCS Site 20	McLennan	1963	50	Brazos	2013
Tehuacana Creek WS NRCS Site 21	McLennan	1965	50	Brazos	2015
Tehuacana Creek WS NRCS Site 22	McLennan	1963	50	Brazos	2013
Tehuacana Creek WS NRCS Site 23	McLennan	1963	50	Brazos	2013
Tehuacana Creek WS NRCS Site 24	McLennan	1971	50	Brazos	2021
Tehuacana Creek WS NRCS Site 25	McLennan	1963	50	Brazos	2013
Tehuacana Creek WS NRCS Site 26	McLennan	1963	50	Brazos	2013
Tehuacana Creek WS NRCS Site 28	McLennan	1963	50	Brazos	2013
Tehuacana Creek WS NRCS Site 29	McLennan	1963	50	Brazos	2013
Tehuacana Creek WS NRCS Site 2A	Hill	1979	50	Brazos	2029
Tehuacana Creek WS NRCS Site 6	McLennan	1970	50	Brazos	2020
Tehuacana Creek WS NRCS Site 7	Hill	1971	50	Brazos	2021
Tehuacana Creek WS NRCS Site 8	McLennan	1964	50	Brazos	2014
Tehuacana Creek WS NRCS Site 9	McLennan	1975	50	Brazos	2025
Ten Mile Creek WS NRCS Site 10	Dallas	1957	50	Trinity	2007
Ten Mile Creek WS NRCS Site 9	Ellis	1957	50	Trinity	2007

Three Mile & Sulfur Dr WS NRCS Site 1	Culberson	1985	100	Rio Grande	2085
Three Mile & Sulfur Dr WS NRCS Site 2	Culberson	1984	100	Rio Grande	2084
Town Branch WS NRCS Site 1	Madison	1969	50	Trinity	2019
Town Branch WS NRCS Site 2	Madison	1969	50	Trinity	2019
Town Creek WS NRCS Site 1	Blanco	1970	100		2070
Turkey Creek WS NRCS Site 10	Brown	1963	50	Colorado	2013
Turkey Creek WS NRCS Site 11A	Brown	1968	50	Colorado	2018
Turkey Creek WS NRCS Site 12	Brown	1963	50	Colorado	2013
Turkey Creek WS NRCS Site 1A	Callahan	1963	50	Colorado	2013
Turkey Creek WS NRCS Site 1B	Callahan	1963	50	Colorado	2013
Turkey Creek WS NRCS Site 2	Callahan	1962	50	Colorado	2012
Turkey Creek WS NRCS Site 3	Callahan	1962	50	Colorado	2012
Turkey Creek WS NRCS Site 4	Callahan	1963	50	Colorado	2013
Turkey Creek WS NRCS Site 5	Callahan	1963	50	Colorado	2013
Turkey Creek WS NRCS Site 6	Callahan	1963	50	Colorado	2013
Turkey Creek WS NRCS Site 7	Callahan	1963	50	Colorado	2013
Turkey Creek WS NRCS Site 8	Callahan	1962	50	Colorado	2012
Turkey Creek WS NRCS Site 9	Callahan	1962	50	Colorado	2012
U. East Fork Laterals WS NRCS Site 10	Kaufman	1956	50	Trinity	2006
U. East Fork Laterals WS NRCS Site 11	Kaufman	1964	50	Trinity	2014
U. East Fork Laterals WS NRCS Site 11A	Kaufman	1963	50	Trinity	2013
U. East Fork Laterals WS NRCS Site 11B	Kaufman	1963	50	Trinity	2013
U. East Fork Laterals WS NRCS Site 11D	Kaufman	1963	50	Trinity	2013
U. East Fork Laterals WS NRCS Site 11F	Kaufman	1963	50	Trinity	2013
U. East Fork Laterals WS NRCS Site 11G	Kaufman	1963	50	Trinity	2013
U. East Fork Laterals WS NRCS Site 11H	Kaufman	1963	50	Trinity	2013
U. East Fork Laterals WS NRCS Site 11K	Kaufman	1964	50	Trinity	2014
U. East Fork Laterals WS NRCS Site 2	Collin	1958	50	Trinity	2008

U. East Fork Laterals WS NRCS Site 3A	Collin	1958	50	Trinity	2008
U. East Fork Laterals WS NRCS Site 3B	Collin	1958	50	Trinity	2008
U. East Fork Laterals WS NRCS Site 3C	Rockwall	1959	50	Trinity	2009
U. East Fork Laterals WS NRCS Site 3E	Rockwall	1959	50	Trinity	2009
U. East Fork Laterals WS NRCS Site 3F	Rockwall	1959	50	Trinity	2009
U. East Fork Laterals WS NRCS Site 3G	Rockwall	1959	50	Trinity	2009
U. East Fork Laterals WS NRCS Site 4	Rockwall	1955	50	Trinity	2005
U. East Fork Laterals WS NRCS Site 4A	Rockwall	1955	50	Trinity	2005
U. East Fork Laterals WS NRCS Site 4B	Rockwall	1955	50	Trinity	2005
U. East Fork Laterals WS NRCS Site 5A	Rockwall	1955	50	Trinity	2005
U. East Fork Laterals WS NRCS Site 5B	Rockwall	1955	50	Trinity	2005
U. East Fork Laterals WS NRCS Site 5C	Rockwall	1955	50	Trinity	2005
U. East Fork Laterals WS NRCS Site 6	Rockwall	1955	50	Trinity	2005
U. East Fork Laterals WS NRCS Site 6A	Rockwall	1955	25	Trinity	1980
U. East Fork Laterals WS NRCS Site 7	Rockwall	1967	50	Trinity	2017
U. East Fork Laterals WS NRCS Site 8	Rockwall	1956	50	Trinity	2006
U. East Fork Laterals WS NRCS Site 9	Kaufman	1956	50	Trinity	2006
U. East Fork Laterals WS NRCS Site 9A	Kaufman	1956	50	Trinity	2006
U. N. Sulphur River Site G-65	Lamar	1979	25		2004
Upper Bosque River WS NRCS Site 1	Erath	1967	100	Brazos	2067
Upper Bosque River WS NRCS Site 10	Erath	1969	100	Brazos	2069
Upper Bosque River WS NRCS Site 11	Erath	1969	100	Brazos	2069
Upper Bosque River WS NRCS Site 12	Erath	1968	100	Brazos	2068
Upper Bosque River WS NRCS Site 13	Erath	1965	100	Brazos	2065

Upper Bosque River WS NRCS Site 14	Erath	1965	100	Brazos	2065
Upper Bosque River WS NRCS Site 15	Erath	1968	100	Brazos	2068
Upper Bosque River WS NRCS Site 17	Erath	1967	100	Brazos	2067
Upper Bosque River WS NRCS Site 18	Erath	1966	100	Brazos	2066
Upper Bosque River WS NRCS Site 19	Erath	1966	100	Brazos	2066
Upper Bosque River WS NRCS Site 2	Erath	1967	100	Brazos	2067
Upper Bosque River WS NRCS Site 20	Erath	1966	100	Brazos	2066
Upper Bosque River WS NRCS Site 21	Erath	1966	100	Brazos	2066
Upper Bosque River WS NRCS Site 22	Erath	1968	100	Brazos	2068
Upper Bosque River WS NRCS Site 23	Erath	1968	100	Brazos	2068
Upper Bosque River WS NRCS Site 24	Erath	1968	100	Brazos	2068
Upper Bosque River WS NRCS Site 25	Erath	1970	100	Brazos	2070
Upper Bosque River WS NRCS Site 26	Erath	1968	100	Brazos	2068
Upper Bosque River WS NRCS Site 27	Erath	1974	100	Brazos	2074
Upper Bosque River WS NRCS Site 28	Hamilton	1970	100	Brazos	2070
Upper Bosque River WS NRCS Site 3	Erath	1969	100	Brazos	2069
Upper Bosque River WS NRCS Site 4	Erath	1966	100	Brazos	2066
Upper Bosque River WS NRCS Site 5	Erath	1966	100	Brazos	2066
Upper Bosque River WS NRCS Site 6	Erath	1970	100	Brazo	2070
Upper Bosque River WS NRCS Site 7	Erath	1968	100	Brazos	2068
Upper Bosque River WS NRCS Site 8	Erath	1968	100	Brazos	2068
Upper Bosque River WS NRCS Site 9	Erath	1972	100	Brazos	2072
Upper Brushy Creek WS NRCS Site 1	Williamson	1961	50	Brazos	2011

Upper Brushy Creek WS NRCS Site 10A	Williamson	1965	50	Brazos	2015
Upper Brushy Creek WS NRCS Site 10B	Williamson	1965	50	Brazos	2015
Upper Brushy Creek WS NRCS Site 11	Williamson	1967	50	Brazos	2017
Upper Brushy Creek WS NRCS Site 12	Williamson	1967	50	Brazos	2017
Upper Brushy Creek WS NRCS Site 13A	Williamson	1960	50	Brazos	2010
Upper Brushy Creek WS NRCS Site 14	Williamson	1966	50	Brazos	2016
Upper Brushy Creek WS NRCS Site 15	Williamson	1965	50	Brazos	2015
Upper Brushy Creek WS NRCS Site 16	Williamson	1963	50	Brazos	2013
Upper Brushy Creek WS NRCS Site 17	Williamson	1966	50	Brazos	2016
Upper Brushy Creek WS NRCS Site 18	Williamson	1960	50	Brazos	2010
Upper Brushy Creek WS NRCS Site 19	Williamson	1960	50	Brazos	2010
Upper Brushy Creek WS NRCS Site 2	Williamson	1962	50	Brazos	2012
Upper Brushy Creek WS NRCS Site 20	Williamson	1960	50	Brazos	2010
Upper Brushy Creek WS NRCS Site 21	Williamson	1959	50	Brazos	2009
Upper Brushy Creek WS NRCS Site 22	Williamson	1959	50	Brazos	2009
Upper Brushy Creek WS NRCS Site 25	Williamson	1975	50	Brazos	2025
Upper Brushy Creek WS NRCS Site 29	Williamson	1972	50	Brazos	2022
Upper Brushy Creek WS NRCS Site 3	Williamson	1962	50	Brazos	2012
Upper Brushy Creek WS NRCS Site 30	Williamson	1959	50	Brazos	2009
Upper Brushy Creek WS NRCS Site 31	Williamson	1977	50	Brazos	2027
Upper Brushy Creek WS NRCS Site 32	Williamson	1960	50	Brazos	2010
Upper Brushy Creek WS NRCS Site 33	Williamson	1959	50	Brazos	2009
Upper Brushy Creek WS NRCS Site 4	Williamson	1960	50	Brazos	2010

Upper Brushy Creek WS NRCS Site 5	Williamson	1960	50	Brazos	2010
Upper Brushy Creek WS NRCS Site 6	Williamson	1959	50	Brazos	2009
Upper Brushy Creek WS NRCS Site 7	Williamson	1965	50	Brazos	2015
Upper Brushy Creek WS NRCS Site 8	Williamson	1959	50	Brazos	2009
Upper Brushy Creek WS NRCS Site 9	Williamson	1959	50	Brazos	2009
Upper Caney Creek WS NRCS Site 1	Leon	1980	100		2080
Upper Cibolo Creek WS NRCS Site 1	Kendall	1978	100	San Antonio	2078
Upper Cibolo Creek WS NRCS Site 2	Kendall	1980	100	San Antonio	2080
Upper Cibolo Creek WS NRCS Site 3	Kendall	1980	100	San Antonio	2080
Upper Cibolo Creek WS NRCS Site 4	Kendall	1980	100	San Antonio	2080
Upper Lake Fork WS NRCS Site 1	Hunt	1977	50	Sabine	2027
Upper Lake Fork WS NRCS Site 10A	Hunt	1968	50	Sabine	2018
Upper Lake Fork WS NRCS Site 12	Hopkins	1964	50	Sabine	2014
Upper Lake Fork WS NRCS Site 13	Hopkins	1964	50	Sabine	2014
Upper Lake Fork WS NRCS Site 14	Hopkins	1961	50	Sabine	2011
Upper Lake Fork WS NRCS Site 15A	Hopkins	1966	50	Sabine	2016
Upper Lake Fork WS NRCS Site 16B	Hopkins	1977	50	Sabine	2027
Upper Lake Fork WS NRCS Site 16C	Hopkins	1977	50	Sabine	2027
Upper Lake Fork WS NRCS Site 17	Hopkins	1960	50	Sabine	2010
Upper Lake Fork WS NRCS Site 18	Hopkins	1960	50	Sabine	2010
Upper Lake Fork WS NRCS Site 19	Hopkins	1962	50	Sabine	2012
Upper Lake Fork WS NRCS Site 2	Hunt	1961	50	Sabine	2011
Upper Lake Fork WS NRCS Site 20C	Hopkins	1985	50	Sabine	2035

Upper Lake Fork WS NRCS Site 21	Hopkins	1961	50	Sabine	2011
Upper Lake Fork WS NRCS Site 22	Hopkins	1964	50	Sabine	2014
Upper Lake Fork WS NRCS Site 23	Hopkins	1962	50	Sabine	2012
Upper Lake Fork WS NRCS Site 3	Hunt	1963	50	Sabine	2013
Upper Lake Fork WS NRCS Site 4	Hunt	1961	50	Sabine	2011
Upper Lake Fork WS NRCS Site 5	Hunt	1963	50	Sabine	2013
Upper Lake Fork WS NRCS Site 6	Hunt	1966	50	Sabine	2016
Upper Lake Fork WS NRCS Site 7	Hunt	1961	50	Sabine	2011
Upper Lake Fork WS NRCS Site 8B	Rains	1985	50	Sabine	2035
Upper Lake Fork WS NRCS Site 9	Rains	1964	50	Sabine	2014
Upper Las Moras Creek WS NRCS Site 1	Kinney	1964	50	Rio Grande	2014
Upper Las Moras Creek WS NRCS Site 2	Kinney	1964	50	Rio Grande	2014
Upper Pecan Bayou WS NRCS Site 1	Callahan	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 10	Callahan	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 11A	Callahan	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 12	Callahan	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 18A	Callahan	1968	100	Colorado	2068
Upper Pecan Bayou WS NRCS Site 19	Coleman	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 2	Callahan	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 20	Coleman	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 21	Callahan	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 22	Callahan	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 23	Callahan	1967	100	Colorado	2067

Upper Pecan Bayou WS NRCS Site 24	Coleman	1971	100	Colorado	2071
Upper Pecan Bayou WS NRCS Site 25	Coleman	1974	100	Colorado	2074
Upper Pecan Bayou WS NRCS Site 26	Brown	1968	100	Colorado	2068
Upper Pecan Bayou WS NRCS Site 3	Taylor	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 30	Brown	1975	100	Colorado	2075
Upper Pecan Bayou WS NRCS Site 31	Brown	1971	100	Colorado	2071
Upper Pecan Bayou WS NRCS Site 32	Brown	1971	100	Colorado	2071
Upper Pecan Bayou WS NRCS Site 33	Brown	1973	100	Colorado	2073
Upper Pecan Bayou WS NRCS Site 34	Brown	1968	100	Colorado	2068
Upper Pecan Bayou WS NRCS Site 4A	Taylor	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 5	Taylor	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 6	Callahan	1967	100	Colorado	2067
Upper Pecan Bayou WS NRCS Site 7	Callahan	1970	100	Colorado	2070
Upper Pecan Bayou WS NRCS Site 9	Callahan	1967	100	Colorado	2067
Upper San Marcos River Site 1	Hays	1983	100	Guadalupe	2083
Upper San Marcos River Site 2	Hays	1985	100	Guadalupe	2085
Upper San Marcos River Site 3	Hays	1991	100	Guadalupe	2091
Upper San Marcos River Site 4	Hays	1985	100	Guadalupe	2085
Upper San Marcos River Site 5	Hays	1989	100	Guadalupe	2089
Upper Washita River WS NRCS Site 1	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 10	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 11	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 12	Hemphill	1963	50	Red	2013

Upper Washita River WS NRCS Site 13	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 14	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 14A	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 15	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 15A	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 16	Hemphill	1961	50	Red	2011
Upper Washita River WS NRCS Site 17	Wheeler	1961	50	Red	2011
Upper Washita River WS NRCS Site 17A	Wheeler	1961	50	Red	2011
Upper Washita River WS NRCS Site 17B	Wheeler	1960	50	Red	2010
Upper Washita River WS NRCS Site 18	Wheeler	1960	50	Red	2010
Upper Washita River WS NRCS Site 19	Wheeler	1960	50	Red	2010
Upper Washita River WS NRCS Site 2	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 20	Wheeler	1961	50	Red	2011
Upper Washita River WS NRCS Site 21	Wheeler	1961	50	Red	2011
Upper Washita River WS NRCS Site 22	Hemphill	1961	50	Red	2011
Upper Washita River WS NRCS Site 23A	Hemphill	1961	50	Red	2011
Upper Washita River WS NRCS Site 23B	Hemphill	1961	50	Red	2011
Upper Washita River WS NRCS Site 24	Hemphill	1961	50	Red	2011
Upper Washita River WS NRCS Site 25	Hemphill	1961	50	Red	2011
Upper Washita River WS NRCS Site 26	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 27	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 28	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 29	Hemphill	1963	50	Red	2013

Upper Washita River WS NRCS Site 3	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 30	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 31	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 32	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 4	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 45	Hemphill	1963	50	Red	2013
Upper Washita River WS NRCS Site 5	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 6	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 7	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 8	Hemphill	1962	50	Red	2012
Upper Washita River WS NRCS Site 9	Hemphill	1962	50	Red	2012
Valley Creek WS NRCS Site 1	Nolan	1968	50	Colorado	2018
Valley Creek WS NRCS Site 10	Taylor	1966	50	Colorado	2016
Valley Creek WS NRCS Site 11	Taylor	1969	50	Colorado	2019
Valley Creek WS NRCS Site 13A	Taylor	1973	50	Colorado	2023
Valley Creek WS NRCS Site 14	Taylor	1965	50	Colorado	2015
Valley Creek WS NRCS Site 15	Taylor	1971	50	Colorado	2021
Valley Creek WS NRCS Site 16	Taylor	1967	50	Colorado	2017
Valley Creek WS NRCS Site 17	Taylor	1967	50	Colorado	2017
Valley Creek WS NRCS Site 18	Runnels	1964	50	Colorado	2014
Valley Creek WS NRCS Site 19	Runnels	1966	50	Colorado	2016
Valley Creek WS NRCS Site 20	Runnels	1969	50	Colorado	2019
Valley Creek WS NRCS Site 2A	Nolan	1975	50	Colorado	2025
Valley Creek WS NRCS Site 3	Taylor	1964	50	Colorado	2014

Valley Creek WS NRCS Site 4A	Nolan	1966	50	Colorado	2016
Valley Creek WS NRCS Site 5	Nolan	1971	50	Colorado	2021
Valley Creek WS NRCS Site 6	Nolan	1965	50	Colorado	2015
Valley Creek WS NRCS Site 7	Taylor	1964	50	Colorado	2014
Valley Creek WS NRCS Site 8	Taylor	1964	50	Colorado	2014
Valley Creek WS NRCS Site 9	Taylor	1966	50	Colorado	2016
Village-Walker Creek WS NRCS Site 2	Ellis	1968	50	Trinity	2018
Village-Walker Creek WS NRCS Site 3	Ellis	1968	50	Trinity	2018
Village-Walker Creek WS NRCS Site 4	Ellis	1968	50	Trinity	2018
Village-Walker Creek WS NRCS Site 5	Ellis	1963	50	Trinity	2013
Village-Walker Creek WS NRCS Site 6	Ellis	1963	50	Trinity	2013
Village-Walker Creek WS NRCS Site 7	Ellis	1962	50	Trinity	2012
Village-Walker Creek WS NRCS Site 8	Ellis	1962	50	Trinity	2012
Village-Walker Creek WS NRCS Site 8A	Ellis	1963	50	Trinity	2013
Waldo E. Jackson	Delta	1984	25	Sulphur	2009
Welch Dam	Red River	1982	25		2007
West Delta-24A	Delta	1980	25	Sulphur	2005
West Fork Above Bridgeport Site 1	Jack	1951	50	Trinity	2001
West Fork Above Bridgeport Site 11	Jack	1952	50	Trinity	2002
West Fork Above Bridgeport Site 12	Jack	1952	50	Trinity	2002
West Fork Above Bridgeport Site 2	Jack	1951	50	Trinity	2001
West Fork Above Bridgeport Site 3	Jack	1951	50	Trinity	2001
West Fork Above Bridgeport Site 3B	Jack	1951	50	Trinity	2001
West Fork Above Bridgeport Site 6	Jack	1948	50	Trinity	1998
West Fork Above Bridgeport Site 9	Jack	1952	50	Trinity	2002
West Fork Of Buffalo Creek WS NRCS Site 1	Johnson	1987	100	Brazos	2087
Williams & Williams	Lamar	1984	50	Sulphur	2034

Williams Creek WS NRCS Site 1	Gillespie	1968	100	Colorado	2068
Williams Creek WS NRCS Site 2	Gillespie	1968	100	Colorado	2068
Williams Creek WS NRCS Site 3	Gillespie	1967	100	Colorado	2067
Williams Creek WS NRCS Site 4	Gillespie	1967	100	Colorado	2067
Willow Creek WS NRCS Site 1	Tom Green	1979	100	Colorado	2079
Willow Creek WS NRCS Site 2	Tom Green	1979	100	Colorado	2079
Windrum Gss	Washington	1981	25		2006
Yoder-Caviness Dam (Mr-50)	Lamar	1981	25	Sulphur	2006
York Creek WS NRCS Site 1	Comal	1967	50	Guadalupe	2017
York Creek WS NRCS Site 10	Guadalupe	1963	50	Guadalupe	2013
York Creek WS NRCS Site 11	Guadalupe	1963	50	Guadalupe	2013
York Creek WS NRCS Site 12	Guadalupe	1963	50	Guadalupe	2013
York Creek WS NRCS Site 13	Guadalupe	1964	50	Guadalupe	2014
York Creek WS NRCS Site 14	Guadalupe	1963	50	Guadalupe	2013
York Creek WS NRCS Site 15	Guadalupe	1961	50	Guadalupe	2011
York Creek WS NRCS Site 16	Guadalupe	1961	50	Guadalupe	2011
York Creek WS NRCS Site 2	Comal	1963	50	Guadalupe	2013
York Creek WS NRCS Site 3	Comal	1967	50	Guadalupe	2017
York Creek WS NRCS Site 4	Comal	1965	50	Guadalupe	2015
York Creek WS NRCS Site 5	Hays	1963	50	Guadalupe	2013
York Creek WS NRCS Site 6	Guadalupe	1962	50	Guadalupe	2012
York Creek WS NRCS Site 7	Guadalupe	1962	50	Guadalupe	2012
York Creek WS NRCS Site 8	Guadalupe	1963	50	Guadalupe	2013
York Creek WS NRCS Site 9	Guadalupe	1964	50	Guadalupe	2014

*Information provided by Texas State Soil and Water Conservation Board, July 17, 2018.