



2021

ALERT II – EARLY FLOOD WARNING SYSTEM UPGRADE

St. 1400 Forest Trail @ Ditch 1202 (Northwest Forest)



New elevated ALERT II station

Jefferson County Drainage District No. 6
Closeout Report Prepared for the TWDB
10/28/2021

Jefferson County Drainage District No. 6

Alert II – Early Flood Warning System Upgrade Closeout Report

TABLE OF CONTENTS

TITLE	PAGE
List of Acronyms	
1 – Executive Summary	2
2 – Introduction	3
2.1 Description of Project	3
2.2 Methodology for Software and Types of Equipment Used	4
2.3 Public Comment	10
3 – Location of Equipment	11
3.1 List of Stations	11
3.2 Station locations	14
4 – Sample of Data	15
5 - Scheduled Maintenance and Monitoring of Equipment	18
5.1 Monthly Site Inspections	18
5.2 Quarterly Calibrations	18
6 - Conclusion	19
A – Appendix of Meeting Minutes	20

Table List

Name of Table	Table No.
List of Stations	1

Figure List

Name of Figure	Figure No.
Pole and Platform Style	1
NEMA enclosure protecting Key Equipment	2
New Sensors	3
JCDD6 Proposed Solution	4
Alert Station – Map of all stations – Rain Increment – 24 Hour	5
Alert Station – Station 3500 East Lane @ Ditch 200 (Willow Marsh Bayou) Sensor Data, Map and Images	6
Alert Station – Station 5600 State Hwy 124 @ Ditch 500 North Fork Taylors	7
Alert Station –Station 2300 State Highway 124@ Hillebrandt Bayou Ditch 100 Bayou	8

List of Acronyms

ALERT – Automated Local Evaluation in Real Time

API - Application Programming Interface

ArcGIS REST – Core service geographic information system software made by Esri

EAP – Emergency action plan

GPS – Global Positioning System

FTP – File Transfer Protocol

GeoJSON – JavaScript Object Notation ad GEO layer

GIS – Geographic Information System

GPS – Global Positioning System

HADS – Hydrometeorological Automated Data System

JCDD6/District – Jefferson County Drainage District No. 6

KML – Keyhole Markup Language

METAR – Meteorological Aerodrom Reports

NEMA – National Electrical Manufacturers Association

NOAA – National Oceanic and Atmospheric Administration

NOAA Tides – National Oceanic and Atmospheric Administration historical datasets

NWS – National Weather Service

RAFFAR – IntelliSense’s node network communication system

SDI – Serial Data Interface

SHEF - Standard Hydrologic Exchange Format code

ST - Station

TDMA – Time Division Multiple Access

TWDB – Texas Water Development Board

TxDOT -- Texas Department of Transportation

USGS – United States Geological Survey

WMS – Web Map Service

WMTS – Web Map Tile Service (also called tile server)

XML – Extensible Markup Language

1. Executive Summary

In 2018, Jefferson County Drainage District No. 6 (JCDD6 or District) applied for a TWDB Flood Protection Grant to upgrade and improve its flood early warning system, the Automated Local Evaluation in Real Time (ALERT) system. It is a radio protocol developed by the National Weather Service (NWS) in the late 1970s for transmitting hydro-meteorological data. The ALERT system upgrade addressed the District's outdated system and equipment to provide Jefferson County with a more accessible and reliable flood warning system. Initiated over twenty years ago, this system provided the public and other entities with real time data during current and historical weather events. The ALERT system uses data sensors to monitor rainfall, water level, temperature, wind speed and direction to help monitor the major influx of water entering and exiting the county. The Drainage District uses the information collected by these sensors to better facilitate flood control and help provide evidence for future projects to improve drainage in the county.

Though the District had worked diligently to keep this system operating at the highest caliber, Hurricane Harvey helped highlight some of the system's critical flaws. Harvey battered Jefferson County with more than 50 inches of rain in three days. These tremendous flood waters produced massive amounts of data which was all sent through one solo radio frequency. A total of 76 station sites with at least three sensors at each location all sending data at the same time caused quite a load on the system and the District found that the system lost thirty to forty percent of the data. These losses were due to transmission collisions and corruptions. During such an intense event, there was so much data going through one channel that it could not collect every transmission. Some of the data collided, became corrupted, or missed the base station entirely. With this grant, JCDD6 installed new equipment and software that will drastically drop this loss percentage to less than 3%. The TWDB awarded the grant at the end of 2018 and the entities entered into a contract for the grant on January 22, 2019.

The project had multiple phases that included building a prototype station, uploading the software, installing the new equipment on the prototype for testing prior to mass replication, and then mass replication and installation to the 76 sites. The prototype was completed in the third quarter of 2020 and successfully tested. The building of the station fabrications occurred in the fourth quarter of 2020. The installations began in February of 2021 and were completed in September of 2021. The system has been successfully tested and is fully functioning and operational. Real time data can be viewed at the JCDD6 website.

The entire population of Jefferson County, as well as regional communities benefit from this real time data. This upgrade helps inform the public and other entities about high water levels and heavy rain events. This information also helps the District, cities, county and regional decision makers make informed and well evidenced decisions for emergency aid to help mitigate against loss of life during an event as well as help evaluate potential property damages. This system also helps to evaluate the effectiveness of drainage for future improvement.

2. Introduction

2.1. Description of project

ALERT stands for Automated Local Evaluation in Real-Time. It is a radio protocol developed by the National Weather Service (NWS) in the late 1970s for transmitting hydro-meteorological data. Though the District has worked diligently to keep this system operating at the highest caliber, Hurricane Harvey helped highlight some of the system's critical flaws. Harvey battered Jefferson County with more than 50 inches of rain in three days. These tremendous flood waters produced massive amounts of data which was all sent through one solo radio frequency. A total of 76 station sites with at least three sensors at each location all sending data at the same time caused quite a load on the system and the District found that during this massive event, the system lost thirty to forty percent of data. These losses were due to transmission collisions and corruptions. During such an intense event, there is so much data going through one channel that it cannot collect every transmission. In addition, some collided, become corrupted, or missed the base station entirely. It was evident that the District had to update the ALERT system to the ALERT II system.

One of the major issues with the current system was that it was outdated. The District had been running the same software with minimum updates for over ten years. Through its research, the District discovered the system was considerably outdated and needed to be updated to modernize to the industry standard. The major element of this upgrade was changing the system from ALERT I to ALERT II. This new ALERT II platform implements two major improvements to the system: Global Positioning System (GPS) time-stamped data, which provides more JCDD6 accuracy; and Time Division Multiple Access (TDMA), which allows a number of users to share the same frequency channel by dividing the signal into different time slots. In this mode, each transmitter takes turns talking on a specified schedule. Using this mode eliminates data loss due to two sites transmitting over each other. Changing to the new ALERT II protocol started with the District's radio network. The former network consisted of one radio frequency, two repeater sites (one in Nome the other in Winnie), and a primary base station at the JCDD6 facility.

These locations needed all new hardware which would allow for additional radio frequencies to be added and function with both ALERT I and ALERT II. The addition of another frequency helped divide the data traffic for the future and prevent any losses during system transition. The multi-platform repeater sites also helped prevent data loss during the upgrade because it granted the ability of operating both ALERT I and ALERT II without any system shutdown.

Once the backbone of the system was upgraded to ALERT II, the District installed new software and hardware. The software for ALERT II is more web-based and user friendly than its predecessor. The District purchased ALERT II software from OneRain. The software is called Contrail. In addition to the software, OneRain provides webinars and forums for continuous training and knowledge.

After the purchase of the OneRain software (Contrail), the District input its historical data. Once completed, OneRain conducted three separate six hour training courses. These administration courses included training for: using the administrator access to add/edit/validate data loaded into the system, create multiple views/maps/groups, add sensors/sites into Contrail, create user accounts, creating reports for data downloads, create custom alarms based on multiple data points, creating data exports for NWS and National Oceanic and Atmospheric Administration (NOAA), creating data exports via Final Transfer Protocol (FTP), Contrail's Application Programming Interface (API) or a shell script file, creating ingest systems for United States Geological Survey (USGS), RAFFAR (RAFFAR is a name not an acronym that is IntelliSense's node network communication system) systems, FTP or Standard Hydrologic Exchange Format code (SHEF) and creating custom thresholds for the maps and graphs.

The final six hour course included: adding locations, sites and units of inventory, a tutorial on adding and creating bar codes that can be scanned, and creating input sheets to ingest data into the Inventory Plus (inventory software) as well as training on using the built in TDMA manager to create/edit/test the District's TDMA plan made in conjunction with OneRain. The TDMA plan demonstrates how to calibrate and troubleshoot the ALERT II network before replacing the legacy ALERT I network. In addition, OneRain has monthly webinars that are available to all customers with reminders sent via emails and has recordings of some past webinars available on open source locations to use as reference materials.

The hardware was installed at 75 of the current 76 stations. The last site is used for testing, troubleshooting, and training at the District's offices or for a temporary site if a project dictates a necessity. The new hardware differs entirely from its predecessor in that it is built to improve routine maintenance, lower costs, and simplify future installations or repairs.

2.2. Methodology for Software and Types of Equipment Used

From that analyses, the District requested written quotations from multiple software firms to upgrade to ALERT II including software, installation of software, administration training and webinar training for inventory software and TDMA Manager Software. Figure 4 is the detailed information requested from the qualified firms.

In addition to the software, the District issued competitive solicitation for equipment which can withstand weather like hurricanes for the stations including antennas, transmitters, sensors, Serial Data Interface (SDI) communicators, rain gauges, and decoders as well as the metal and other materials for the station. Below is Station (St.) 100 Black Creek @ State Highway before the upgrade and after the upgrade was installed.

BEFORE UPGRADE



AFTER UPGRADE



Prior to the upgrade, the District used a standpipe made of aluminum that housed the equipment. While it was designed to allow the transmitter to float if the standpipe took on water, the durability degraded over time. The new style of pole and platform are easy to install and adjust to varying conditions, elevated to prevent future damages and loss of critical data, and made of severe weather and long term exposure resistant materials. Additionally, the transmitters prior to upgrade were difficult to repair and to work. The upgraded transmitter panel design is easier to maintain with modular components that can be easily swapped in and out for repair, and all sites are now uniform. Lastly, the upgraded sensors are more accurate, durable, reliable and low maintenance. Figure 1 illustrates the pole and platform style. Figure 2 illustrates the National Electrical Manufacturers Association (NEMA) enclosure protecting key equipment and Figure 3 shows the new sensors.

Stations Upgrade

Pole Style

- Easy to install and adjust in various locations and conditions



Platform Style

- Elevated to prevent future damages and loss of critical data



Figure 2 - NEMA Enclosure Protecting Key Equipment



- NEMA Enclosure
- Transmitter
- Antennas & GPS
- Cables
- Rain Gauges
- Stage Sensors
 - PT
 - Radar
 - Bubblers



Upgrade Sensors



Tipping Bucket

Measures precipitation by tips (.01 of an inch)

(higher accuracy during major rain events)



SDI-12 Pressure Transducer

Measures water level by pressure

(inexpensive, durable)



Radar

Measures water level by radar pulse

(Accurate, reliable)



Bubbler

Measures water level by air pressure

(Perfect for Problem areas with high sediment and potential damage)



Full Weather

Measures multiple elements such as:

Temperature, wind speed and direction and humidity

(Less moving parts, low maintenance)₁₁

Figure 4: JCDD6 Proposed Solution

Proposed Solution

1. Enterprise-level Flood Warning System Software

The software shall be both on-premise and hosted remotely by the proposer with the databases replicating in real-time with failover capability. The software shall be fully supportable, including ongoing enhancements, support and maintenance. Software shall be:

- Commercial-off-the-shelf (packaged software solution rather than a custom-made solution)
- Capable of ingesting ALERT and ALERTII communication protocol for an unlimited number of sites, as well as publicly available datasets, including USGS, NOAA Tides, HADS, and METAR
- 24x7 Web-based accessible for an unlimited number of desktop and mobile users with role-based privileges and data views that has been optimized for mobile usage that is operating system agnostic
- Public website that does not require user login and password. System administrators shall have controls to either enable or disable public access at the discretion of the client agency, along with specific sites, sensors, map layers, notes, and images
- Configurable for custom District branding
- Display the locations and status of sites in a pan and zoom map. The software shall allow custom layers to be added, enabled, and disabled. Layers should be able to be either imported or referenced from external web services. Layer formats supported shall include Tile Server, WMS, WMTS, KML, GeoJSON, Static Images, ArcGIS REST (Image or Tile).
- Allow external agencies and software applications the ability to put data into the system via a published API. The API shall support XML and web URL data insert requests.
- Advanced Alarm Management with Boolean/Expert Equation toolset enables highly customizable user-defined alarm rules and messaging features that support decision-making criteria and EAP (emergency action plan) procedures and escalation processes
- A web-based inventory and maintenance tracking software to track hardware, assign work orders, and document completed maintenance
- An ALERT II TDMA Manager software to design and manage an ALERT II network. The software shall track capacity and document ALERT II settings
- Software shall retrieve camera images up to every minute, store up to 60 days, and serve up images via a secure API to primary data collection software and to other district websites
- Advanced, integrated reporting and analysis that matches existing district reporting

2. Software Installation and Configuration

Proposer shall work with District IT staff consultant to install, configure, and implement the upgraded data collection software. Proposer shall also work with District IT consultant, GIS consultant, and surrounding agencies to incorporate all collected data to their websites. Server hardware will be provided by the County.

3. On-site Software Training

Proposer shall also complete a two-day on-site training for system administrators and general software users. The training shall also cover server administration.

4. Inventory and ALERT II TDMA Manager Training

Proposer shall offer Webinar on-line training sessions for end-users and system administrators for both the Inventory software and the ALERT II TDMA Manager software.

2.3 Public Comment

After the JCDD6 Board of Directors authorized the execution of the grant contract with the Texas Water Development Board (TWDB) on January 22, 2019, the District held three public meetings in conjunction with its monthly meetings to inform the public of the project and solicit any comments. Specifically,

- October 15, 2019 – The public was notified of the grant award and the work that would take place.
- March 9, 2021 – The public was informed of the current status of the implementation of the project.
- October 12, 2021 – The public was notified that all work was completed on the project in September and the website was operational.

Appendix A displays the meeting agenda for each the aforementioned meetings.

3. Location of Equipment

3.1 List of Stations

At the time of the application and subsequent award, the District had 76 sites. Since that time, it has added an additional ten sites. Table 1 (below) is the location for all 86 sites, the ten new sites are highlighted in yellow. Also highlighted in orange is the 76th site. This site is used for testing, troubleshooting, and training at the District’s offices or for a temporary site if a project dictates it is necessary.

There are two constructed and uninstalled stations which are slated for installation upon completion of two replacement bridges which are currently under construction. Since most of the ideal installation locations are located on bridges, situations like these cannot be avoided. Specific information regarding these two stations are as follows:

- St. 5600 State Hwy 124 @ Ditch 500 North Fork Taylors Bayou (noted with an asterisk in Table 1) has been delayed. The District was notified by the Texas Department of Transportation (TxDOT) of the upcoming bridge remodel. All the equipment is assembled, programmed and the elevated platform has been constructed for the installation of the site. The District will keep the legacy equipment at the site until the construction is complete which is scheduled to begin late 2022/early 2023. Figure 7 shows that the information used is legacy system information.
- St. 2300 State Highway124 @ Hillebrandt Bayou Ditch 100 all upgrades were completed. The District was not notified of the bridge remodel. After construction started at that location, to protect the station, the District had to temporarily remove the site. Once construction is complete, the District will need to find a suitable site location at the bridge. The temporary location is still being determined, therefore, on the website, St. 2300 has been taken “Out of Service”. Figure 8 illustrates what is found on the Site’s homepage with a note located giving notice on why no data is being collected.

Table 1 – JCDD6 Location of Alert Stations

Station
St. 1000 Black Creek @ State Highway 326
St. 1100 Cotton Creek [D-1100] @ Grayburg Road (Nome)
St. 1200 State Highway 326 @ Pine Island Bayou
St. 1300 Pine Island Bayou @ State Highway 105 (Bevil Oaks)
St. 1400 Forest Trail @ Ditch 1202 (Northwest Forest)
St. 1500 Tram Road @ Ditch 1002
St. 1600 Pine Island Bayou @ Best Road @ L.N.V.A Pump Station
St. 1800 Tram Road @ Walker Ditch-1000
St. 1900 Chris Quinn Soccer Fields @ Hillebrandt Bayou [D-100]
St. 2000 Folsom Road @ Hillebrandt Bayou [D-100]
St. 2100 Gladys Ave. @ Hillebrandt Bayou [D-100]

Station
St. 2200 Washington Blvd @ Caldwell Cutoff Ditch 100
St. 2300 State Highway124 @ Hillebrandt Bayou Ditch 100
St. 2320 Tyrrell Park Detention @ Phelps Road
St. 2400 M.H.M.R. South 8th Street @ Ditch 110
St. 2420 South 11th Street Detention Pond
St. 2500 Highland Ave. @ Ditch 104
St. 2600 Prutzman Road @ Ditch 202 Amelia C/O
St. 2700 Landis Drive @ Ditch 202B
St. 2800 Walden Road @ Ditch 202
St. 2900 Frint Road @ Ditch 200 Willow Marsh Bayou
St. 3000 Hillebrandt Bayou @ Hillebrandt Road @ Bridge D-100
St. 3020 Lawhon Detention Pond @ Ditch 400
St. 3100 Kidd Road @ Ditch 406-B
St. 3200 Glenbrook Dr. @ Ditch 407 @ Green Acres
St. 3220 Green Acres Screw Gates @ Ditch 407
St. 3300 Labelle Road @ Ditch 300 Pevito Bayou
St. 3500 East Lane @ Ditch 200 (Willow Marsh Bayou)
St. 3600 Ridgewood Detention Pond @ 7th Street
St. 3620 NRCS Beehive Hwy 365 @ Deercamp Rd.
St. 3700 Laurel And Eastex Freeway @ Ditch 116
St. 3800 Old Walmart Basin
St. 4100 Plant Road @ Ditch 903
St. 4200 Concord @ Ditch 001
St. 4300 Beaumont Yacht Club @ Neches River
St. 4320 LNVA Saltwater Barrier @ Neches River
St. 4400 East Lucas @ Ditch 002
St. 4600 Spindletop Bayou @ State Highway 124 [Bridge] D-8100
St. 5100 Turner Road @ Ditch 600
St. 5200 South China Road @ Ditch 608
St. 5300 South Pine Island Road @ Ditch 607
St. 5400 State Highway 365 @ Ditch 600 Green Pond Gully
St. 5500 F.M.1406 @ Ditch 500 North Fork Taylors Bayou
St. 5520 North Fork Taylors Bayou & Dubois Rd
St. 5600 State Hwy 124 @ Ditch 500 North Fork Taylors Bayou*
St. 5620 Craigen Road @ Taylors Bayou Ditch 500
St. 5700 Labelle Road @ Ditch 500 Taylors Bayou
St. 5720 Taylors Bayou the WINDOWS
St. 5800 Moore Road @ Detention Pond C Ditch 607

Station
St. 5820 Port Acres Sportsman @ Marsh Ditch 551-C
St. 5900 Taylors Bayou @ Saltwater Barrier 8 Gate
St. 5920 Taylors Bayou @ Saltwater Barrier 11 Gate
St. 6000 South China Road @ Ditch 800
St. 6100 Lawhon Road @ Green Pond Road
St. 6200 South China Road @ Pine Tree Ditch 601
St. 6300 T.P.W.D. Boat Ramp in J.D. Murphree @ Ditch 500
St. 6320 Hebert Heirs Marsh Ditch 551-G
St. 6400 Boondocks @ D-700 Taylors Bayou South Fork (Bridge)
St. 6420 Needmore Diversion @ Hwy 73 @ Ditch 8001
St. 6500 Sabine Ranch @ Ditch 550
St. 6600 Labelle Ranch Property @ Ditch 552-A
St. 6700 Cattle Walk @ Ditch 550
St. 6720 Pipkin Ranch @ Willow Slough Ditch 550
St. 6800 Needmore Diversion Saltwater Barrier @ Ditch 8001
St. 6900 Blind Lake Outfall Giww @ Ditch 8006
St. 700 Batiste Creek @ State Highway 770 (Hull)
St. 7000 Mayhaw Bayou @ Wilber Road
St. 7100 Mayhaw Bayou @ Brush Island Road
St. 7200 Mayhaw Bayou @ Englin Road
St. 7220 Mayhaw Diversion Structure near Spindletop Bayou
St. 7300 Keith Lake Public Boat Launch @ Highway 87
St. 7500 GIWW @ State Highway 87 (Bridge) Ditch 8000
St. 7600 Marsh Unit @ Highway 87 @ Park Road 69
St. 7700 GIWW @ Stupka's Camp
St. 7800 Clam Lake Road @ Ten Mile Cut Bridge
St. 7900 GIWW @ Star Lake Ditch 8000
St. 800 Pine Island Bayou @ State Highway 105 (Batson)
St. 8120 GIWW @ Salt Bayou Outfall
St. 900 Little Pine Island Bayou @ State Highway 787
St. 1920 DowDel Basin Screwgates @ Ditch 121-B
St. 2020 Folsom Screwgates Behind Howell Furniture
St. 2120 Wellington Screwgates @ Ditch 121
St. 2620 Gulf Terrace Screwgates @ Ditch 202-E1B
St. 8200 Whites Ranch @ Outfall #2
St. 8220 Stingeree Restaurant
St. 4500 Temporary site

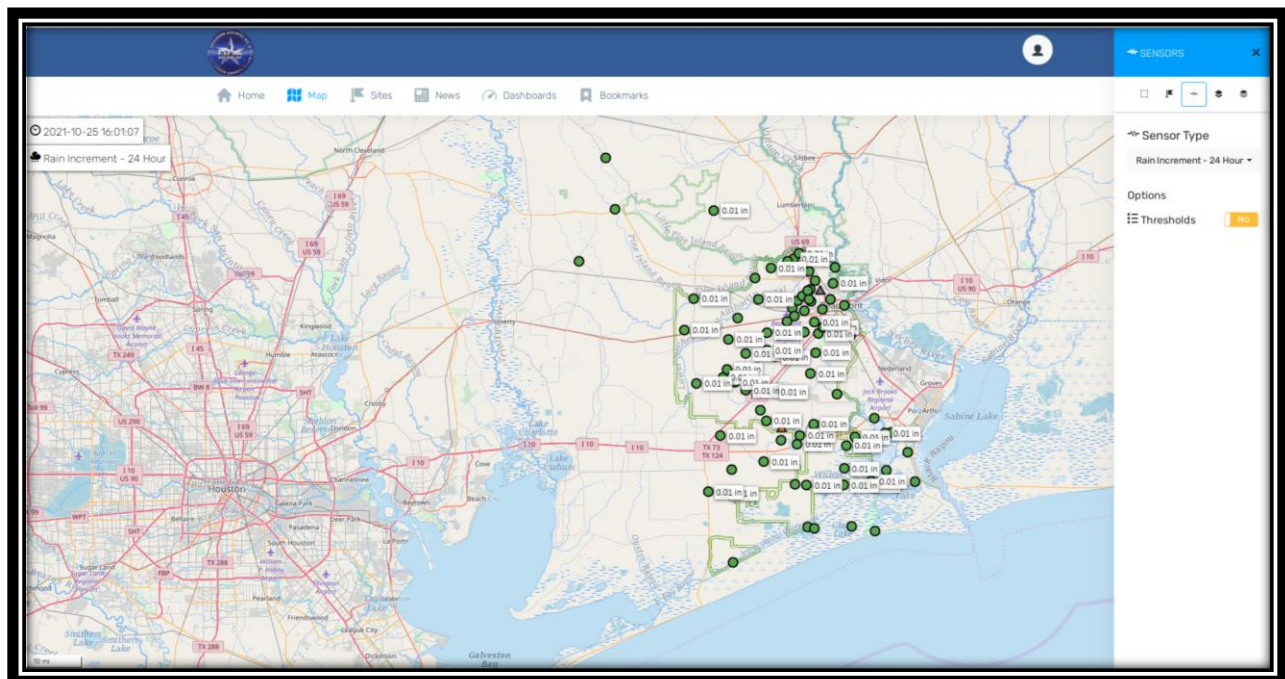
3.2 Stations locations

The Alert II system relies on a network of gage stations strategically placed throughout the District's watersheds. This includes stations inside Jefferson County and surrounding areas. All stations contain sensors that transmit valuable data during times of heavy rainfall and during tropical storms and hurricanes. With this data, the District is able to view the full scope of drainage throughout the five watersheds in its boundaries.

4. Sample of Data

The JCDD6 Alert Flood Warning System measures rainfall amounts and monitors waters levels in the watersheds and their tributaries on a real-time basis to inform the public of potential dangerous weather conditions. The information can be found on the District’s website under Rainfall/Elevations. In a web-based, user friendly format, the public can view rainfall and water levels at a particular site or all of the sites in aggregate. It measures weather conditions in addition to rainfall amounts and bayou/stream levels. Additional weather conditions that can be measured include: air temperature, barometric pressure, humidity, rainfall, water levels, water temperatures, wind speed, wind gust speed and wind direction. The website can also provide historical information that can be presented in various ways (list, graph, by sensor etc.). Figure 5 depicts the locations of the stations throughout the District’s boundaries. This map is showing the rain increment in the last 24 hours of the request.

Figure 5 Alert Station – Map of all stations – Rain Increment – 24 Hour



Specific site information also can be reported. By simply clicking from the list of sites, the user can find real time data on the rain accumulation, water levels and even the battery life of the sensor as well as its location and images of the station. Figure 6 provides a screenshot of the information. As discussed in Section 3. Figure 7 provides a screenshot of Station 5600 State Hwy 124 @ Ditch 500 North Fork Taylors Bayou Sensor Data, Map and Images which is currently using legacy Alert Information. Figure 8 depicts Station 2300 State Highway 124@ Hillebrandt Bayou Ditch 100 Bayou as “Out of Service”.

Figure 6 Alert Station – Station 3500 East Lane @ Ditch 200 (Willow Marsh Bayou) Sensor Data, Map and Images

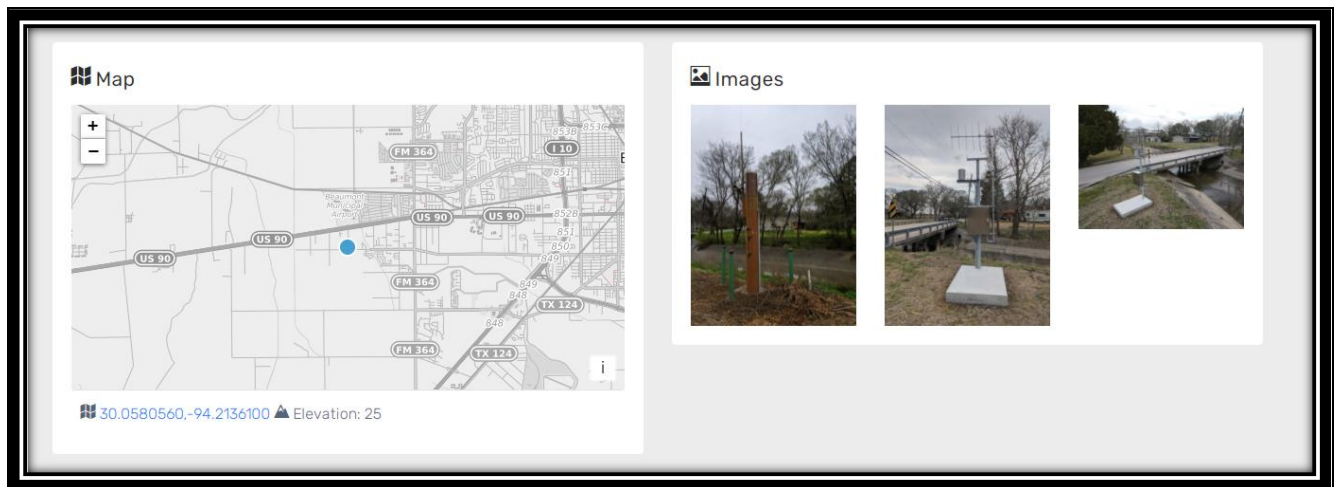
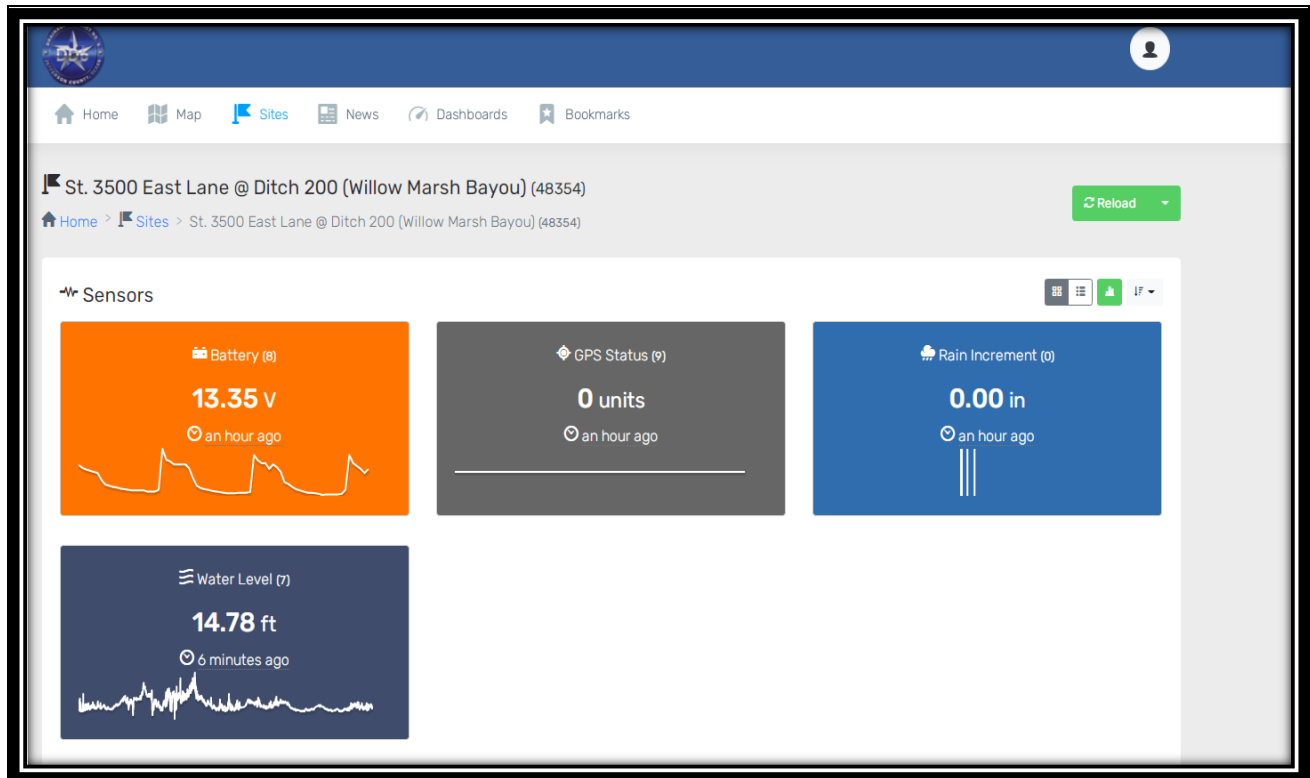


Figure 7 Alert Station – Station 5600 State Hwy 124 @ Ditch 500 North Fork Taylors Bayou Sensor Data, Map and Images – Legacy Alert Information

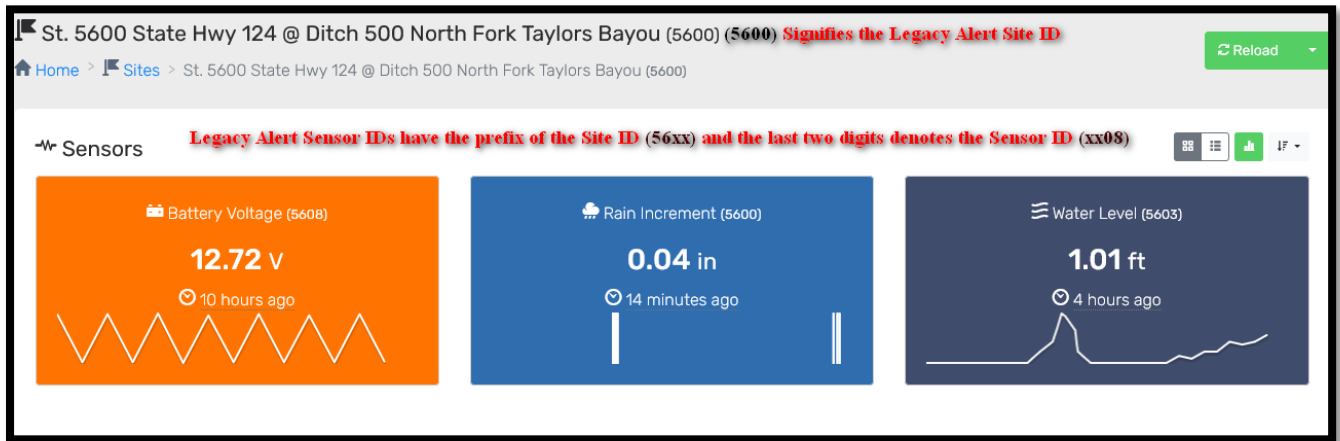


Figure 8 Alert Station – Station 2300 State Highway 124@ Hillebrandt Bayou Ditch 100 Bayou Sensor Data, Map and Images – Out of Service



Notes

1/7/2022 - Due to bridge construction, this site is temporarily down until a suitable replacement location is found.

5. Scheduled Maintenance and Monitoring of Equipment

5.1 Monthly Site Inspections

The District inspects each site once a month where the following takes place:

- Assess the site conditions
- Clean sensors
- Record manual readings
- Perform any necessary repairs

5.2 Quarterly Calibrations

In addition to the monthly inspections, the District performs quarterly calibrations that includes:

- Conduct sensor tests to evaluate equipment accuracy
- Complete any necessary adjustments or corrections

6. Conclusion

The purpose of the ALERT II – Early Flood Detection system website is to provide information collected from the stations and present the information in a user-friendly format. This information is used internally and by numerous government agencies such as the National Oceanic and Atmospheric Administration (NOAA) and the United States Geological Survey (USGS) as well as national and local meteorologists to keep the public informed of imminent and current flooding conditions in Jefferson County and surrounding areas. Residents and businesses are encouraged to monitor water levels near their homes, places of work, and the areas along their daily commutes during storm events.

The District is grateful to the TWDB for the grant to help pay for this critical software and equipment upgrades to the ALERT II –Early Flood Warning System.

APPENDIX A – MEETING AGENDAS



AGENDA

**MEETING OF THE BOARD OF DIRECTORS
Of
JEFFERSON COUNTY DRAINAGE DISTRICT NO. 6**

Will Be Held At
9:00 A.M.
October 15, 2019

at
6550 Walden Road
Beaumont, Texas 77707

- A. Meeting called to order.
- B. Call Roll.
- C. Pledge of Allegiance.
- D. Invocation.
- E. Public Comments.



3 pgs
NPM

2019034215

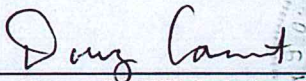
- F. Workshop Session.
 - 1. Tropical Storm Imelda Report and Observations.
- G. Approve the Minutes of September 10, 2019.
- H. Business Session:
 - 1. Consider a resolution authorizing the payment of routine bills received since September 10, 2019, that were not expressly authorized or denied for payment elsewhere on this agenda.
 - 2. Receipt and file Jefferson County Drainage District No. 6's Investment Schedule for September 2019, pursuant to Section 2256.023 of the Public Funds Investment Act.
 - 3. Consider a resolution approving the Certified Roll Jurisdiction Summary of the tax roll for Tax Year 2019, pursuant to the Texas Property Tax Code, Section 26.09.
 - 4. Consider a resolution adopting Jefferson County's Holiday Schedule for the Year 2020.

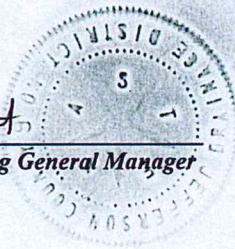
5. In connection with Ditch 500/North Fork Taylor's Bayou, and pursuant to a Cost Sharing Agreement for Pipeline Relocation (on file in the District's records), approved by the Board of Directors on April 24, 2019, consider a resolution authorizing payment to Texas Eastern Transmission (Enbridge) in the amount of \$1,500,000.00 for a portion of the costs incurred to lower their 30-inch line contingent upon approval of the supporting documents by the District's management staff.
6. Consider a resolution accepting the Statement of Sole Source for the purchase of a Commercial Slope Mower, Kut Kwick Model SSM-T4, and authorizing the purchase of this mower in the amount of \$67,779.74, as exempt from the standard bidding requirements as a sole source procurement, pursuant to section 49.278 of the Texas Water Code.
7. Consider a resolution approving a bid award for IFB 19-010/KJS, a new 145-HP, 4WD John Deere Tractor to Brookside Equipment, the lowest bidder meeting the District's specifications for this equipment, in the amount of \$111,212.00 for a John Deere 6145M Tractor; and also authorizing the execution of an Acceptance of Offer for same.
8. Consider a resolution approving a bid award for IFB 19-011/KJS, a new 175-HP, 4WD Tractor to Shoppa's Farm Supply, the lowest bidder meeting the District's specifications for this equipment, in the amount of \$156,895.63 for a John Deere 6175R Tractor; and also authorizing the execution of an Acceptance of Offer for same.
9. Consider a resolution ratifying bid specifications, advertising and administrative bid opening for IFB 19-013/KJS John Deere Tractors and Mowers, 2019 or newer; and also approving a bid award to Brookside Equipment Sales, the lowest bidder meeting the District's specifications for two new 100-HP, 4WD John Deere Tractors in the amount of \$46,450 each (\$92,900.00), two 15-ft Batwing Mowers at \$21,404.50 each (\$42,809.00) and one 12-ft Batwing Mower in the amount of \$12,405.00, and also authorizing the execution of an Acceptance of Offer for same.
10. Consider a resolution authorizing the execution of an "Application and Agreement for Pipeline/Utility Permit No. 2019-PL-14" submitted by CenterPoint Energy Texas Gas Operations, requesting permission to access the District's right-of-way on Ditch No. 123 (Delaware Extension Development) to install one, 2-in plastic natural gas line, and authorize fees associated with the permit in the amount of \$1,000.
11. Consider a resolution authorizing the execution of an "Application and Agreement for Pipeline/Utility Permit No. 2019-PL-15" submitted by Enterprise TE Products Pipeline Company, LLC, requesting permission to access the District's right-of-way on Ditch Nos. 505, 400, 406, 405-B, 402-A1, 402, 300, 303 (2 crossings), 302, 100, 102, 102-D and Sand Rd. to install one, 30-in Ethane line, and also authorize fees associated with this permit in the amount of \$73,500, which is comprised of 8 open cuts (\$5,000 each), 6 borings (\$1,000 each) and 11 temporary bridges (\$2,500 each).
12. The President to declare a public hearing in session for the purpose of notifying the public of award of a Texas Water Development Flood Protection Grant Contract #1800012311 for Alert Station System to Jefferson County Drainage District No. 6.

13. The President to call for an executive (closed) session under Title 5, Subchapter D, of the Government Code, Section 551.074 to deliberate the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee, and under Title 5, Subchapter D, of the Government Code, Section 551.071 to consult with the District's Attorney regarding pending or contemplated litigation with the District and for consultation on legal matters pursuant to Section 551.071(2).
 14. The Board to Reconvene in Open Session.
 15. Consider a resolution approving the procedures for filling permanent position of General Manager.
- I. Board Comments, no action items.
- J. Adjournment.

Posted: October 11, 2019

BY:


Doug Canant, PE, RPLS, *Acting General Manager*



CONFORMED COPY
OFFICIAL PUBLIC RECORDS



Carolyn L. Guidry, County Clerk
Jefferson County, Texas

October 11, 2019 01:11:30 PM

FEE: \$0.00 2019034215



AGENDA

MEETING OF THE BOARD OF DIRECTORS
Of
JEFFERSON COUNTY DRAINAGE DISTRICT NO. 6

Will Be Held At
9:00 A.M.
March 9, 2021

at
6550 Walden Road
Beaumont, Texas 77707


NOTICE: Jefferson County Drainage District No. 6 continues to practice social distancing and in an effort to avert the potential spread of COVID-19, any visitor entering the District's facility will be digitally screened for fever, asked if they have a dry cough or shortness of breath, and will be required to wear a face covering for the entire time they are at the facility. Anyone with a temperature above 100.4F will not be allowed to enter the District's facility.

- A. Meeting called to order.
- B. Call Roll.
- C. Pledge of Allegiance.
- D. Invocation.
- E. Workshop Session.
 - 1. Easements, street abandonments, and plat reviews.
 - 2. General discussion and reports on various drainage plans and projects.
- F. Public Comments.
Public Comments (3 minutes each) – An opportunity for the public to address the Jefferson County Drainage District No. 6 Board of Directors on agenda items or concerns not on the agenda – those wishing to speak must complete the blue comment card, present the comment card to the District's Executive Assistant prior to the beginning of the meeting, and observe a three-minute time limit. Members of the public who utilize a translator to address the Board shall be allowed six (6) minutes to address the Board.
- G. Approve the minutes of February 9, 2021.
- H. Business session:
 - 1. Consider a resolution authorizing the payment of routine bills received since February 9, 2021, that were not expressly authorized or denied for payment elsewhere on this agenda.
 - 2. Acknowledge the receipt and filing of Jefferson County Drainage District No. 6's Investment Schedule for February 28, 2021, pursuant to Section 2256.023 of the Public Funds Investment Act.

3. The President to declare a Public Hearing in session, the second of three public hearings, to declare mid-way point on the project awarded from Texas Water Development Flood Protection Grant funds, Contract #1800012311, for ALERT Station System to Jefferson County Drainage District No. 6.
4. Consider a resolution acknowledging receipt of the final executed documents related to the issuance, sale, and delivery of "Jefferson County Drainage District No. 6 Contract Revenue Refunding Bond, Series 2021".
5. Pursuant to the "Wonderful Bees, LLC Beehive Site Lease" approved on April 24, 2018, consider a resolution accepting Wonderful Bees LLC's request to exercise their 1-year renewal option at a rate of \$3.00 per beehive, the right to place up to 700 hives (\$2,100), and an expiration date of December 31, 2021.
6. In connection with LJA Engineering, Inc.'s contract for GIS Mapping Services (IFB 19-015/KJS), consider a resolution ratifying the approval and execution of "Change Order No. 2" in the amount of \$7,000.00 for an additional 100 documents added to the District's mapping services at the current contracted price of \$70 per document.
7. In connection with a Federal Emergency Management Agency (FEMA) grant in the amount of \$148,912.49 awarded to Jefferson County for repairs to the Pignut Gully Bridge, consider and authorize the execution of an "Interlocal Agreement" (on file in the District's records) between the County of Jefferson and Jefferson County Drainage District No. 6, outlining each entities duties and obligations regarding Pignut Gully drainage improvements and bridge repairs.
8. In connection with an \$8,500,000 Watershed Flood Protection Planning Study Grant (Regional Watershed Plan) and Drainage District No. 6's funding commitment of \$1,875,000 in local match funds and \$250,000 in local in-kind funds (\$2,125,000), consider and authorize the execution of an "Authorized Representative Agreement Execution Resolution" giving the General Manager authority to execute an agreement with the Texas Water Development Board setting out the terms and conditions for the grant funding.
9. Consider a resolution designating the Chief Business Officer as the Subrecipient Authorized Representative (SAR) and granting signatory authority for Federal and State Grant Applications and Management.
10. In connection with crossing improvements on Ditch No. 403-A1 at the LNVA Gallier Canal, consider a resolution ratifying the receipt and execution of an "Inter-Governmental Agreement" between the Lower Neches Valley Authority (LNVA) and the Jefferson County Drainage District No. 6, wherein Drainage District No. 6 agreed to supply the materials, manpower, and equipment for the crossing improvements, and wherein the LNVA and Drainage District No. 6 agreed to split the estimated material costs of \$194,938.10 associated with the improvements.

Jefferson County Drainage District No. 6
Agenda for March 9, 2021 - Board of Directors Meeting
 Page 3

11. In connection with IFB 21-008/KJS-Pipe for Ditch 403-A1 LNVA Crossing, consider a resolution authorizing a bid award to Hobas Pipe USA, the best bidder meeting the District's specifications, in the amounts shown on the Final Bid Tabulation noted below; and also approving the execution of an Acceptance of Offer for this award.

	Hobas Pipe USA 1413 E. Richey Rd. Houston, Tx 77073 Attn: Richard Carrasquero 281-821-2200 rcarrasquero@hobaspipe.com						TPG Pressure Inc. 1003 N. McArthur Blvd. Grand Prairie, TX 75050 Attn: Mike Sechelski 972-942-8827 msechelski@thompsonpipegroup.com										
	Quantity & Unit	Size	Class (PN)	Pipe Stiffness (SN)	Joint Length	Type of Joint	Unit Price	Total Price	Quantity & Unit	Size	Class (PN)	Pipe Stiffness (SN)	Joint Length	Type of Joint	Unit Price	Total Price	
FINAL TABULATION																	
Fiberglass Reinforced Polymer Mortar Pipes	1100 total LF	36"	25 min	46 min	20LF	FWC Couplings	\$ 107.00	\$ 117,700.00	1100 total LF	36"	25 min	46 min	20LF	FWC Couplings	\$ 93.00	\$ 102,300.00	
UV End Treatment 10 feet of both ends of pipe	10EA	36"					\$ 165.00	\$ 1,650.00	10EA	36"					\$ 100.00	\$ 1,000.00	
Total								\$ 119,350.00								\$ 103,300.00	
Delivery Time	Delivery time: 6 weeks unless it's in stock						Confirmed Delivery by March 10, 2021						Delivery time: 8 weeks after P.O. and approved submittal				Confirmed Delivery in 6 weeks

12. Consider a resolution awarding Concrete Channel Repair Phase I for Jefferson County Drainage District No. 6 (IFB 20-036) to MK Constructors, in the amount of \$198,150.00, the lowest bidder and best bidder meeting the District's specifications, and also authorizing the execution of an Agreement to enter into a contract for same.



Final Bid Tabulation for: CONCRETE CHANNEL REPAIR PHASE I (IFB 20-036/CM)
 Bids Received: February 17, 2021

Item No.	Item Code	Item Description	Estimated Quantity	Unit	MK Constructors		SETEX Construction Corp.		Brystar Contracting Inc.		ALICO		Mason Construction LLC	
					Unit Price	Item Total	Unit Price	Item Total	Unit Price	Item Total	Unit Price	Item Total	Unit Price	Item Total
104	1	Remove Concrete (Rip Rap)	653	S.Y.	\$ 69.00	\$ 39,180.00	\$ 35.18	\$ 22,972.54	\$ 120.00	\$ 78,360.00	\$ 181.99	\$ 118,839.47	\$ 109.14	\$ 71,268.42
110	1	Excavation (Soil Failure)	50	C.Y.	\$ 22.00	\$ 1,100.00	\$ 46.91	\$ 2,345.50	\$ 80.00	\$ 4,000.00	\$ 52.83	\$ 2,641.50	\$ 117.54	\$ 5,877.00
132	1	Eriberkment (Final-Ordinary Comp.) (Ty-A)	50	C.Y.	\$ 45.00	\$ 2,250.00	\$ 46.91	\$ 2,345.50	\$ 93.00	\$ 4,650.00	\$ 87.44	\$ 4,372.00	\$ 173.24	\$ 8,662.00
162	1	Soeding for Erosion Control (Ditch Top to Right of Way Line) (Primari)	800	S.Y.	\$ 5.50	\$ 4,400.00	\$ 9.39	\$ 7,504.00	\$ 6.25	\$ 5,000.00	\$ 24.76	\$ 19,808.00	\$ 39.44	\$ 31,554.00
164	1	Seeding for Erosion Control (Ditch Top to Right of Way Line) (Alternate)	800	S.Y.	\$ 1.00	\$ 800.00	\$ 4.69	\$ 3,752.00	\$ 0.35	\$ 280.00	\$ 16.64	\$ 13,312.00	\$ 6.33	\$ 5,104.00
168	1	Vegetative Watering (1,000 Gallons/Acre per Working Day) (15 Consecutive Days)	37	M.G.	\$ 88.00	\$ 3,256.00	\$ 205.24	\$ 7,593.88	\$ 55.00	\$ 1,995.00	\$ 490.13	\$ 18,134.81	\$ 0.85	\$ 31.45
400	1	Excavation & Backfill for Pipe (Largest Stabilized Sand S-Fact)	50	C.Y.	\$ 118.00	\$ 5,900.00	\$ 105.55	\$ 5,277.50	\$ 160.00	\$ 8,000.00	\$ 181.78	\$ 9,089.00	\$ 250.17	\$ 12,508.50
401	1	Flowable Backfill (As Needed)	75	C.Y.	\$ 119.00	\$ 8,925.00	\$ 152.47	\$ 11,435.25	\$ 210.00	\$ 15,750.00	\$ 117.25	\$ 8,793.75	\$ 312.51	\$ 24,189.00
402	1	Trench Excavation Protection	80	L.F.	\$ 1.00	\$ 80.00	\$ 35.18	\$ 2,814.40	\$ 6.00	\$ 480.00	\$ 5.00	\$ 400.00	\$ 109.18	\$ 8,734.40
410	1	Concrete Collar (HDPE Pipe to Various Pipe Materials)	4	E.A.	\$ 1,260.00	\$ 5,040.00	\$ 693.25	\$ 3,793.00	\$ 1,200.00	\$ 4,800.00	\$ 1,062.53	\$ 4,250.12	\$ 4,180.48	\$ 16,721.62
432	1	Piprap (8" Class A) (Channels Less than 3-ft deep)	566	S.Y.	\$ 148.00	\$ 83,968.00	\$ 170.05	\$ 96,259.99	\$ 255.00	\$ 144,330.00	\$ 246.37	\$ 139,445.42	\$ 413.49	\$ 234,035.34
432	2	Piprap (8" Class A) (Channels 3-ft deep to 12-ft deep)	87	S.Y.	\$ 158.00	\$ 13,746.00	\$ 169.51	\$ 14,746.37	\$ 280.00	\$ 24,360.00	\$ 215.40	\$ 18,739.80	\$ 281.06	\$ 24,452.22
472	1	Remove & Re-Lay Pipe (Various Pipe Sizes with Prop. 3/4" HDPE)	80	L.F.	\$ 142.00	\$ 11,360.00	\$ 99.69	\$ 7,975.20	\$ 180.00	\$ 14,400.00	\$ 69.45	\$ 5,556.00	\$ 201.25	\$ 16,100.00
500	1	Mobilization (Not to Exceed 10%)	1	L.S.	\$ 10,000.00	\$ 10,000.00	\$ 18,784.99	\$ 18,784.99	\$ 25,000.00	\$ 25,000.00	\$ 37,397.00	\$ 37,397.00	\$ 44,965.00	\$ 44,965.00
502	1	Barricades, Signs & Traffic Handling	3	MO.	\$ 550.00	\$ 1,650.00	\$ 2,111.06	\$ 6,333.18	\$ 2,000.00	\$ 6,000.00	\$ 525.00	\$ 1,575.00	\$ 1,752.30	\$ 5,256.60
506	1	Construction Entrance (Install)	4	E.A.	\$ 1,600.00	\$ 6,400.00	\$ 1,407.37	\$ 5,629.48	\$ 4,500.00	\$ 18,000.00	\$ 5,792.79	\$ 23,171.18	\$ 3,265.09	\$ 13,140.36
506	2	Construction Entrance (Remove)	4	E.A.	\$ 250.00	\$ 1,000.00	\$ 1,497.37	\$ 5,989.48	\$ 2,000.00	\$ 8,000.00	\$ 2,792.29	\$ 11,169.16	\$ 5,146.80	\$ 20,587.20
506	3	Erosion Control-Gutter Buckle/Erosion Control Logs	10	E.A.	\$ 100.00	\$ 1,000.00	\$ 299.20	\$ 2,992.00	\$ 85.00	\$ 850.00	\$ 402.36	\$ 4,023.50	\$ 817.03	\$ 8,170.30
999	6001	Dewatering	12	E.A.	\$ 150.00	\$ 1,800.00	\$ 1,407.37	\$ 16,888.44	\$ 500.00	\$ 6,000.00	\$ 2,230.42	\$ 26,765.04	\$ 796.43	\$ 9,557.16
Bid Total =					\$ 198,150.00		\$ 247,035.67		\$ 369,555.00		\$ 467,435.73		\$ 560,944.87	

Jefferson County Drainage District No. 6
Agenda for March 9, 2021 - Board of Directors Meeting
Page 4

13. In connection with the Quibodeaux Detention Basin Project, consider a resolution authorizing the execution of a "Memorandum of Understanding" (on file in the District's records) between Jefferson County Drainage District No. 6, Becky Ann Broussard, and Deborah Marie Mobley, providing for the placement of dirt (excavated for the Quibodeaux detention basin) onto their property located adjacent to the project site; and also authorizing three payments of \$25,000 each to Becky Ann Broussard and Deborah Marie Mobley to be paid at various stages of the project, as per the agreement.
14. In connection with drainage improvements on Ditch No. 300 (Industrial Rd. area), consider a resolution accepting a "Deed of Gift" received from Parigi Property Management, Ltd. conveying to Jefferson County Drainage District No. 6 a 1.6095-acre tract of land out of the L.J. Kopke Survey, Abstract 569, Jefferson County, Texas.
15. Consider a resolution authorizing the execution of a "Road Easement Agreement" to Parigi Property Management, Ltd., along and across a portion of a 1.6095-acre tract on Ditch No. 300 conveyed to Jefferson County Drainage District No. 6 by way of a Deed of Gift from Parigi Property Management, Ltd.
16. Consider a resolution authorizing the execution of a "Letter of Agreement" between Drainage District No. 6 and Patrick Deshotel, dated February 26, 2021 (on file in District's records), wherein Drainage District No. 6 will perform certain work in exchange for the donation of right-of-way to be used for drainage improvements along Ditch No. 406-C.
17. In connection with drainage improvements on Ditch No. 406-C (Cheek Area) and pursuant to a February 26, 2021 Letter of Agreement, consider a resolution accepting a "Drainage Easement" donated by Patrick Deshotel, consisting of the actual width of the aforementioned ditch, including improvements, plus 25 feet on each side of the ditch tops where the ditch lies on his property located in Jefferson County, Texas (Sarah Miles Survey, Abstract 173).
18. Consider a resolution authorizing the execution of a "Letter of Agreement" between Drainage District No. 6 and Charles Deshotel, dated March 2, 2021 (on file in District's records), wherein Drainage District No. 6 will perform certain work in exchange for the donation of right-of-way to be used for drainage improvements along Ditch No. 406--C.
19. In connection with drainage improvements on Ditch No. 406-C (Cheek Area) and pursuant to a March 2, 2021 Letter of Agreement, consider a resolution accepting a "Drainage Easement" donated by Charles Deshotel, consisting of the actual width of the aforementioned ditch, including improvements, plus 25 feet on each side of the ditch tops where the ditch lies on his property; located in Jefferson County, Texas (Sarah Miles Survey, Abstract 173).

20. In connection with drainage improvements on Ditch No. 406-C (Cheek Area), consider a resolution accepting a "Drainage Easement" donated by Karl Deshotel, consisting of the actual width of the aforementioned ditch, including improvements, plus 25 feet on each side of the ditch tops where the ditch lies on his property located in Jefferson County, Texas (Sarah Miles Survey, Abstract 173).
21. In connection with drainage improvements on Ditch No. 406-C (Cheek Area), consider a resolution accepting a "Drainage Easement" donated by Michael Jude Nixon, consisting of the actual width of the aforementioned ditch, including improvements, plus 25 feet on each side of the ditch tops where the ditch lies on his property located in Jefferson County, Texas (Sarah Miles Survey, Abstract 173).
22. In connection with drainage improvements on Ditch No. 406-C (Cheek Area), consider a resolution accepting a "Drainage Easement" donated by Connie Malone and husband, Leonard Malone, consisting of the actual width of the aforementioned ditch, including improvements, plus 25 feet on each side of the ditch tops where the ditch lies on their property located in Jefferson County, Texas (Sarah Miles Survey, Abstract 173).
23. In connection with drainage improvements on Ditch Nos. 406-B and 406-C (Cheek Area), consider a resolution accepting a "Drainage Easement" donated by Vietta Griffin Jackson, consisting of the actual width of the aforementioned ditches, including improvements, plus 25 feet on each side of the ditch tops where the ditches lie on her property located in Jefferson County, Texas (Sarah Miles Survey, Abstract 173).
24. In connection with drainage improvements on Ditch Nos. 406-B and 406-C (Cheek Area), consider a resolution accepting a "Drainage Easement" donated by George Lornette, Jr., consisting of the actual width of the aforementioned ditches, including improvements, plus 25 feet on each side of the ditch tops where the ditches lie on his property located in Jefferson County, Texas (Sarah Miles Survey, Abstract 173).
25. In connection with drainage improvements on Ditch Nos. 406-B and 406-C (Cheek Area), consider a resolution accepting a "Drainage Easement" donated by Tammy Nichols, consisting of the actual width of the aforementioned ditches, including improvements, plus 25 feet on each side of the ditch tops where the ditches lie on her property located in Jefferson County, Texas (Sarah Miles Survey, Abstract 173).
26. In connection with drainage improvements on Ditch Nos. 403-A1 and 403-A1A, consider a resolution approving and accepting a Letter of Agreement dated March 4, 2021 (on file in the District's records) executed by the property owners, Joe Zhou and Hui Si, wherein the District has agreed to pay the property owners \$10,150 and perform certain work on their property in exchange for right-of-way on the aforesaid ditches.
27. Pursuant to a Letter of Agreement dated March 4, 2020, consider a resolution authorizing the acceptance of a Drainage Easement received from Joe Zhou and wife, Hui Si, consisting of a 0.833-acre tract, a 0.627-acre tract, and a 2.516-acre tract located in Jefferson County, Texas, (Sophie Dean Survey, Abstract 16) in connection with drainage improvements Ditch Nos. 403-A1 and 403-A1A (Hwy-365 & Labelle Rd.)

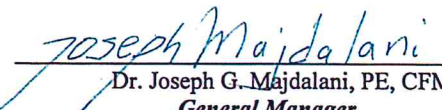
28. Consider a resolution authorizing the execution of a "Letter of Agreement" between Drainage District No. 6 and Michael and Terri Shilo, dated February 25, 2021 (on file in the District's records), wherein Drainage District No. 6 will perform certain work in exchange for the donation of right-of-way for drainage improvements along Ditch No. 406-C.
29. In connection with drainage improvements on Ditch No. 406-C, and pursuant to a February 25, 2021 Letter of Agreement between Drainage District No. 6 and Michael and Terri Shilo, consider a resolution accepting a "Drainage Easement" on Ditch No. 406-C consisting of the actual width of the aforementioned ditch, including improvements, plus 25 feet on each side of the ditch tops where the ditch lies on their property located in Jefferson County, Texas (Sarah Miles Survey, Abstract 173).
30. In connection with the Byrd Gully Relief Grant Project-Ditch No. 1205 (Hwy-105 & Reins Rd.), consider a resolution authorizing the execution of a "Letter of Agreement" between Drainage District No. 6 and Margaret Beverly dated December 22, 2020 (on file in the District's records), wherein Drainage District No. 6 will perform certain work in exchange for the donation of right-of-way to be used for drainage improvements along Ditch No. 1205.
31. In connection with the Byrd Gully Relief Grant Project, and pursuant to a December 22, 2020 Letter of Agreement between Drainage District No. 6 and Margaret Beverly, consider a resolution accepting a "Drainage and Access Easement" on Ditch No. 1205 consisting of a 0.782 drainage easement and an access easement consisting of a 20-ft wide strip of land; located in the Amory Rains League, Abstract 44, Jefferson County, Texas.

I. Board comments, no action items.

J. Adjournment.

Posted: March 5, 2021

BY:


Dr. Joseph G. Majdalani, PE, CFM
General Manager

RETURN TO:
DR JOSEPH G MAJDALANI
JEFFERSON COUNTY DRAINAGE DISTRICT
BEAUMONT, TX 77707

CONFORMED COPY
OFFICIAL PUBLIC RECORDS



Theresa Goodness, County Clerk
Jefferson County, Texas

March 05, 2021 02:37:40 PM

FEE: \$0.00 2021007223



AGENDA

MEETING OF THE BOARD OF DIRECTORS
Of
JEFFERSON COUNTY DRAINAGE DISTRICT NO. 6

Will Be Held At
9:00 A.M.
October 12, 2021

at
6550 Walden Road
Beaumont, Texas 77707

- A. Meeting called to order.
- B. Call Roll.
- C. Pledge of Allegiance.
- D. Invocation.
- E. Workshop Session
 - 1. Ditch 600 Series Channel Assessment Presentation by Huitt-Zollars
 - 2. Easements, street abandonments, and plat reviews.
 - 3. General discussion and reports on various drainage plans and projects.
- F. Public Comments.
Public Comments (3 minutes each) – An opportunity for the public to address the Jefferson County Drainage District No. 6 Board of Directors on agenda items or concerns not on the agenda – those wishing to speak must complete the blue comment card, present the comment card to the District's Executive Assistant prior to the beginning of the meeting, and observe a three-minute time limit. Members of the public who utilize a translator to address the Board shall be allowed six (6) minutes to address the Board.
- G. Approve the minutes of September 14, 2021.
- H. Business session:
 - 1. The President to declare a Public Hearing in session, the third and final public hearing, to declare completion of the project in accordance with Texas Water Development Board Flood Protection Grant funds, Contract No. #1800012311, for ALERT Station System to Jefferson County Drainage District No. 6, executed on January 22, 2019.
 - 2. Consider a resolution authorizing the payment of routine bills received since September 14, 2021, that were not expressly authorized or denied for payment elsewhere on this agenda.
 - 3. Acknowledge the receipt and filing of Jefferson County Drainage District No. 6's "Investment Schedule" for September 30, 2021, pursuant to Section 2256.023 of the Public Funds Investment Act.

4. Consider a resolution approving Jefferson County's "Certified Roll Jurisdiction Summary" of the tax roll for Tax Year 2021, pursuant to the Texas Property Tax Code, Section 26.09.
5. Consider a resolution approving Chambers County's "Certified Roll Jurisdiction Summary" of the tax roll for Tax Year 2021, pursuant to the Texas Property Tax Code, Section 26.09.
6. As required by Section 49.455 of the Texas Water Code, consider a resolution authorizing the execution, by a majority of the Board of Directors, of an "Amended Information Form" revised to reflect Drainage District No. 6's adopted tax rate of \$0.214244/\$100 valuation for 2021; which includes an amended "Notice to Purchasers" as required by Section 49.452 of the Texas Water Code; both of which relate to information to be furnished to prospective purchasers of real estate as to the amount of outstanding bonded indebtedness, boundaries, and tax rate(s) of the District.
7. Consider a resolution adopting Jefferson County's Holiday Schedule for the Year 2022 as noted below:
 - January 17 (Monday)**
Martin Luther King, Jr., Day
 - February 21 (Monday)**
President's Day
 - April 15 (Friday)**
Good Friday
 - May 30 (Monday)**
Memorial Day
 - July 4 (Monday)**
Independence Day
 - September 5 (Monday)**
Labor Day
 - November 11 (Friday)**
Veteran's Day
 - November 24 & 25 (Thursday & Friday)**
Thanksgiving
 - December 23 & 26 (Friday & Monday)**
Christmas
 - January 2, 2023 (Monday)**
New Year's
8. Pursuant to the authority given the General Manager on March 9, 2021, consider a resolution acknowledging the General Manager's execution of the "Texas Water Development Board Commitment Agreement" (TWDB No. G1001280) in connection with the \$8,500,000 Flood Infrastructure Fund Grant, Project No. 40034, (Regional Watershed Study), with a project completion date of October 4, 2023 and a contract expiration date of December 4, 2023.

9. Pursuant to the authority granted by the Board on September 14, 2021, consider a resolution ratifying the award and execution by the General Manager of Jefferson County Drainage District No. 6's "Bank Depository Contract" (RFP 21-009) to Allegiance Bank; proposals accepted by the Jefferson County Purchasing Department on behalf of Drainage District No. 6 on May 5, 2021, and subsequently reviewed and approved by Drainage District No. 6's General Manager, Chief Financial Officer, and Legal Counsel.
10. Consider a resolution authorizing the execution of an "Interlocal Agreement" between the Drainage District No. 6 and the City of Beaumont regarding the waiver of each entity's permit fees when either entity is performing drainage related improvements or infrastructure improvements benefiting the citizens of Jefferson County/City of Beaumont on Drainage District No. 6 or City of Beaumont easements/ rights-of-way.
11. Consider a resolution approving Drainage District No. 6's "Purchasing Policies and Procurement Manual" effective October 1, 2021, with applicable policies correlating to Drainage District No 6's new purchasing software (Fraxion), to take effect upon the "go live date."
12. Consider a resolution authorizing the execution of a "Limited Engagement Request from +ImageNet" for services provided to migrate Drainage District No 6's LaserFiche platform from a 2012 R2 server to a new server with an updated operating system, at a rate of \$165/hr., not to exceed 20 hours.
13. Consider a resolution giving the General Manager authorization to execute a proposal submitted by LUKE Applications, LLC, for services related to a mobile and web-based application for the management of Drainage District No. 6's work orders, with an annual fee of \$8,000.00 and a monthly management service fee of \$300.00.
14. Consider a resolution authorizing the execution of a "Professional Engineering Services Agreement" (PROF 21-027) with Huitt-Zollars for the Channel Assessment 500 Series (Phase I), in an amount not to exceed \$70,000.
15. Consider a resolution authorizing the acceptance of proposals received on September 30, 2021, from: JSWA, Inc; Tidal Basin Government Consulting, LLC; TLC Engineering, Inc.; and Traylor and Associates, Inc., in connection with Professional Services for Grant Application Development and Grant Management for 2021 Funding of Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities Grant Program (BRIC), and/or Flood Mitigation Assistance Grant Program (FMA) Grant Projects (RFP 21-032), and also authorizing the General Manager to award and execute an agreement based upon the Evaluation Committee's recommendation for award, which will be ratified at the meeting following the award.

16. Consider a resolution authorizing the acceptance of qualifications received on September 30, 2021, from: Arceneaux Wilson & Cole, LLC; Freese and Nichols, Inc.; Gauge Engineering; Huiitt-Zollars, Inc.; Lockwood, Andrews, and Newnam, Inc.; and TLC Engineering, Inc., in connection with Professional Engineering Services for 2021 Funding of Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities Grant Program (BRIC), and/or Flood Mitigation Assistance Grant Program (FMA) Grant Projects (RFQ 21-033), and also authorizing the General Manager to award and execute an agreement based upon the Evaluation Committee's recommendation for award, which will be ratified at the meeting following the award.
17. In connection with drainage improvements on Ditch 500-A3 (Lovell Lake Area), consider a resolution accepting an "Access Easement" donated by Lovell Lake Co. (Sandra Melton), granting Drainage District No. 6 ingress and egress over a rock road on Grantor's land located in Jefferson County, Texas (John Jay French League, A-23).
18. Consider a resolution authorizing the execution of a "Letter of Agreement" dated August 12, 2021 between Sandra Joyce Smith Melton and Jefferson County Drainage District No. 6 (on file in the District's records), wherein Drainage District No. 6 will perform certain work on her property in exchange for right-of-way along Ditch 501.
19. Pursuant to an August 12, 2021 Letter of Agreement, consider a resolution accepting a "Drainage Easement" donated by Sandra Joyce Smith Melton, consisting of the actual width of Ditches 501, 502-A and 502-B, (LaBelle Rd./Burrell Wingate Rd.) including improvements, plus 25 feet on each side of the ditch tops where the ditches lie on her property located in Jefferson County, Texas (W. Carr Survey, A-102; W. Smith Survey, A-49; M. Chirino Survey, A-10 and the S. Easton Survey, A-21).
20. In connection with drainage improvements on Ditch Nos. 505-B, 505-B2, and 505-B3A (West Clubb Rd./north of Fannett), consider a resolution accepting a "Drainage Easement" donated by Melvin Gayle McCowan consisting of the actual width of Ditch Nos. 505-B, 505-B2, and 505-B3A, including improvements, plus 25 feet on each side of the ditch tops where the ditches lie on his property located in Jefferson County, Texas (John C. Lawhon League, A-35).
21. In connection with drainage improvements on Ditch 1101 (N. Broadway/China area), consider a resolution accepting a "Drainage Easement" donated by Charlie Wayne Rizzato consisting of the actual width of Ditch 1101, including improvements, plus 25 feet on each side of the ditch tops where the ditch lies on his property located in Jefferson County, Texas (Sophia Dean Survey, A-16).
22. In connection with drainage improvements on Ditch 505 (Church Rd./Fannett area), consider a resolution accepting a "Drainage Easement" donated Michael Lee Vega consisting of the actual width of Ditch 505, including improvements, plus 25 feet on each side of the ditch tops where the ditch lies on his property located in Jefferson County, Texas (J.C. Lawhon Survey, A-35).
23. In connection with drainage improvements on Ditch 402 (Winzer Rd./Cheek area), consider a resolution accepting a "Drainage Easement" donated by Norman and Eleanor Andrus consisting of the actual width of Ditch 402, including improvements, plus 25 feet on each side of the ditch tops where the ditch lies on their property located in Jefferson County, Texas (Michael Pivetot Survey, A-43).

24. In connection with drainage improvements on Ditch Nos. 701, 701-A and 702 (across IH-10 from the Sunchase Addition), consider a resolution accepting a "Drainage Easement" donated by David Smith and Jim Smith consisting of the actual width of Ditch Nos. 701, 701-A and 702, including improvements, plus 25 feet on each side of the ditch tops where the ditches lie on their property located in Jefferson County, Texas (T.&N.O. RR. Co. Sec. 87, A-225).
25. In connection with drainage improvements on Ditch 117 (Central Dr./Beaumont), consider a resolution accepting a "Drainage Easement" donated by Eric and Alison Eldridge consisting of a 10-ft. strip of land being the south 10 feet of Lot 1, Block 5 of the Briarcliff Addition, Jefferson County, Texas (A. Williams Survey, Abstract 385).
26. In connection with drainage improvements on Ditch 505-B (West Clubb Rd./north of Fannett), consider a resolution accepting a "General Warranty Deed" received from Daniel J. Duncan consisting of a 3.011-acre tract located in the John C. Lawhon Survey, Abstract 35, Jefferson County, Texas; and also authorizing payment to Mr. Duncan in the amount of \$18,646.67.
27. In connection with drainage improvements on Ditch 407/North Green Acres Detention, and pursuant to the authority given the District's General Manager and/or Legal Counsel on September 14, 2021, consider a resolution authorizing the acceptance of a "General Warranty Deed" received from Thomas B. Parker and Margaret A. Parker consisting of a 14.621-acre tract located in Manuel Chirino Survey, Abstract 10, Jefferson County, Texas; and also approving payment to the Parkers in the amount of \$90,000.00 upon closing to be conducted by Texas Regional Title.
28. In connection with drainage improvements on Ditch 407/North Green Acres Detention, and pursuant to the authority given the District's General Manager and/or Legal Counsel on September 14, 2021, consider a resolution authorizing the acceptance of a "General Warranty Deed" received from Susan McClanahan, Individually and as Independent Administratrix of the Estate of Gloria Duane McClanahan; and the living children of Gloria Duane McClanahan at the time of her death, consisting of a 43.897-acre tract of land out of the Manuel Chirino Survey, Abstract 10, Jefferson County, Texas; and also authorizing payment to said owners in the amount of \$285,500.00 upon closing to be conducted by Texas Regional Title.
29. In connection with the Ditch 607/North Meeker Road Detention Project, consider a resolution authorizing the District's General Manager and/or Legal Counsel to purchase, through negotiation or condemnation, all tracts of land necessary from all landowners of right-of-way needed for the drainage improvement project.
30. Consider a resolution authorizing the execution of "Application and Agreement for Pipeline/Utility Permit No. 2021-PL-4", submitted by CenterPoint Energy Texas Gas Operations, requesting permission to install one 4-in. natural gas line on Ditch 100 (N. Circuit Drive); and also approving a fee of \$1,000.00 for this crossing.
31. Contingent upon receiving the applicable certificate of insurance, consider a resolution authorizing the execution of "Application and Agreement for Storm Drainpipe Permit No. 2021-SDP-4," submitted by Matt Service (Michael Shilo owner) on behalf of LifeShare Blood Center, requesting permission to tie one 18-in. drainpipe into Ditch 100-A (North Caldwood Addition); and also approving a fee of \$250.00 for the tie-in.

32. Consider a resolution authorizing the execution of "Application and Agreement for Storm Drainpipe Permit No. 2021-SDP-5," submitted by Sendero Industries, LLC, requesting permission to tie one 18-in. drainpipe into Ditch 1002 (Trinity Grove Addition off Hwy-105 and RFD Rd.); and also approving a fee of \$250.00 for the tie-in.

I. Board Comments.

J. Adjournment.

Posted: October 8, 2021

BY:


Dr. Joseph G. Majdalani, PE, CFM
General Manager