

MEMORANDUM

TO: South Texas Water Authority Board of Directors
FROM: Jose M Graveley, President
DATE: February 19, 2024
SUBJECT: Meeting Notice and Agenda for the South Texas Water Authority

A Regular Meeting of the STWA Board of Directors is scheduled for:

Tuesday, February 27, 2024

5:30 p.m.

South Texas Water Authority
2302 East Sage Road
Kingsville, Texas

The Board will consider and act upon any lawful subject which may come before it, including among others, the following:

Agenda

1. Call to order.
2. Citizen comments. This is an opportunity for citizens to address the Board of Directors concerning an issue of community interest that is not on the agenda. Comments on the agenda items must be made when the agenda item comes before the Board. The President may place a time limit on all comments. The response of the Board to any comment under this heading is limited to making a statement of specific factual information in response to the inquiry, or, reciting existing policy in response to the inquiry. Any deliberation of the issue is limited to a proposal to place it on the agenda for a later meeting.
3. Approval of Minutes. (Attachment 1)
4. Quarterly Report/Treasurer's Report/Payment of Bills. (Attachment 2)
5. Operation and Maintenance Report. (Attachment 3)
6. Cathodic Protection Report, presentation and update on bids for rectifiers. (Attachment 4)
7. Discussion of Alternative Water Sources. (Attachment 5)
8. Declaration of surplus property. (Attachment 6)
9. **Resolution 24-06.** Resolution authorizing the sale of surplus property of the South Texas Water Authority. (Attachment 7)
10. Updated STWA Water Conservation and Drought Contingency Plan. (Attachment 8)
11. **Resolution 24-07.** Resolution adopting an updated Water Conservation and Drought Contingency Plan for the South Texas Water Authority. (Attachment 9)

12. Administration Report.

- Update on Corpus Christi Water's relocation of Stevens Plant water meter.

13. Adjournment.

The Board may go into closed session at any time when permitted by Chapter 551, Government Code. Before going into closed session, a quorum of the Board must be assembled in the meeting room, the meeting must be convened as an open meeting pursuant to proper notice, and the presiding officer must announce that a closed session will be held and must identify the sections of Chapter 551, Government Code, authorizing the closed session.

JMG/JM/fdl

Attachments

This meeting notice was posted on
STWA's website, www.stwa.org, and on
indoor and outdoor bulletin boards at
STWA's administrative offices,
2302 East Sage Road, Kingsville, Texas at
6:00 am on February 22, 2024
James DeLeon
Assistant Secretary

ATTACHMENT 1

Approval of Minutes

SOUTH TEXAS WATER AUTHORITY
Public Hearing Minutes
January 23, 2024

Board Members Present:

Jose Graveley
Frances Garcia
Imelda Garza
Rudy Galvan, Jr.
Joe Morales
Art Rodriguez

Board Members Absent:

Patsy Rodgers
Angela Pena
Kathleen Lowman

Staff Present:

John Marez
Frances De Leon
Jo Ella Wagner
Patrick Sendejo

Guests Present:

Rogelio Rodriguez, Water Finance Exchange
Sergio Luna, I.C.E
Margaret Kelly, John Womack & Co., P.C.
Louis Longoria, John Womack & Co., P.C.

1. Call to Order.

Mr. Jose Graveley, Board President, called the Public Hearing of the STWA Board of Directors to order at 5:32 p.m.

2. Petition for Addition of Certain Lands to the South Texas Water Authority.

- a. Victor Lee Castro and Jennifer Lee Salinas – 0.666 acre, more or less, tract of land also being known as Tract 9, Cyndie Park Unit 1, Nueces County, Texas.
- b. Maria De Jesus Estrada – Southwesterly one-half of Tract 17, all of Tracts 18 and 19, and the Northeasterly one-half of Tract 20, Cyndie Park Unit 2, Nueces County, Texas.

These property owners approached the Nueces Water Supply Corporation requesting service outside of the Authority's district boundaries. Approval of the annexation petitions enables the landowners to receive service and pay in-district rates to the Nueces Water Supply Corporation, and allows the property to be placed on STWA tax rolls. Resolutions approving annexation will be presented at the Regular Board Meeting.

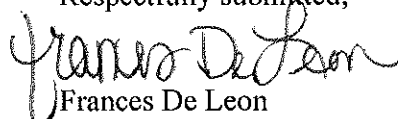
3. Public Comment.

Mr. Graveley called for public comment. No comments from the public were made.

4. Adjournment.

With no further business to discuss, Ms. Garza made a motion to adjourn the Public Hearing at 5:34 p.m. Ms. Garcia seconded and all voted in favor.

Respectfully submitted,


Frances De Leon
Assistant Secretary

SOUTH TEXAS WATER AUTHORITY
Regular Board of Directors Meeting
January 23, 2024
Minutes

Board Members Present:

Jose Graveley
Frances Garcia
Imelda Garza
Rudy Galvan, Jr.
Kathleen Lowman
Joe Morales
Art Rodriguez

Board Members Absent:

Patsy Rodgers
Angela Pena

Staff Present:

John Marez
Frances De Leon
Jo Ella Wagner
Patrick Sendejo

Guests Present:

Rogelio Rodriguez, Water Finance Exchange
Sergio Luna, I.C.E
Margaret Kelly, John Womack & Co., P.C.
Louis Longoria, John Womack & Co., P.C.

1. Call to Order.

Mr. Jose Graveley, Board President, called the Regular Meeting of the STWA Board of Directors to order at 5:34 p.m. A quorum was present.

2. Citizen Comments.

Mr. Graveley opened the floor to citizen's comments. No comments were made.

3. Proposed Fiscal Year 2023 Audit.

Ms. Margaret Kelley, John Womack & Co., P.C. reviewed the Fiscal Year 2023 Audit with the Board and reported that all records were in order and the Authority's financial position continued to strengthen. She added that there was nothing negative to report and thanked staff for their work.

4. Resolution 24-01. Resolution accepting the Fiscal Year 2023 Audit prepared by John Womack & Co., P.C. of Kingsville, Texas.

Mr. Galvan made a motion to approve Resolution 24-01. Mr. Rodriguez seconded the motion. All voted in favor.

5. Consideration and approval of a resolution by the Board of Directors of the South Texas Water Authority requesting financial assistance from the Texas Water Development Board; authorizing the filing of an application for assistance; and making certain findings in connection therewith (Resolution 24-02).

6. Consideration and approval of a Financial Advisory Services Contract pursuant to a request for proposal.
7. Consideration and approval of a Bond Counsel Services Contract pursuant to a request for proposal.
8. Consideration and approval of an Engineering Services Contract pursuant to a request for proposal.

Mr. Marez presented an Application Affidavit, Certificate for Resolution, and Resolution 24-02 listing Estrada Hinojosa & Company, Inc as Financial Advisor, ICE Engineers at Engineer, Winstead PC as Bond Counsel and Water Finance Exchange as Administrator. He stated that as part of the process for Texas Water Development Board Funding, selection of firms to carry out the Financial Advisory, Bond Counsel, Engineering and Administrative Services is needed. He added that the selected firms were reviewed by the STWA Selection Committee/Executive Committee and he requested approval of Resolution 24-02 as the final step in preparing for TWDB funding. Mr. Graveley made a motion to approve Resolution 24-02 and the selected firms. Mr. Rodriguez seconded. All voted in favor.

9. Approval of Minutes.

Ms. Garcia made a motion to approve the minutes of the December 5, 2023 Regular Meeting as presented. Mr. Rodriguez seconded. The motion passed by unanimous vote.

10. Payment of Bills.

The following invoices were presented for Board approval:

• Stewart & Stevenson	\$ 10,000.00
• Kevin Kieschnick	\$ 2,941.60
• Kevin Kieschnick	\$ 2,645.97
• Kleberg County	\$ 25,641.00

Mr. Galvan made a motion to approve payment of the bills. Ms. Garcia seconded. The motion passed unanimously.

11. Operation and Maintenance Reports.

Mr. Sendejo reported that the two Field Technician positions have been filled. He added that Hector Barbosa has been hired as the Cathodic Protection Technician and he holds a NACE certification and has extensive CP experience. Mr. Marez stated that Mr. Barbosa has provided ideas for saving money by performing much of the CP work in-house and has discussed providing training to other staff members.

12. Bids for purchase of two Fiscal Year 2024 pickup trucks.

Mr. Marez stated that after making a minor change to the bid specifications, bid packets were again sent out and one bid was received. He presented a bid from Sames Ford for two 2023 Ford F150 4x2 Supercrew trucks priced at \$42,986 each. He noted that the newest truck was purchased for \$59,780.00.

13. Resolution 24-03. Resolution awarding the bid for the purchase of two pickup trucks.

Mr. Galvan moved to adopt Resolution 24-03 awarding the bid for two trucks to Sames Ford in the amount of \$42,986 each. Mr. Rodriguez seconded the motion. All voted in favor.

14. Approval of Annexation of Certain Lands to the South Texas Water Authority.

- a. Victor Lee Castro and Jennifer Lee Salinas – 0.666 acre, more or less, tract of land also being known as Tract 9, Cyndie Park Unit 1, Nueces County, Texas.
- b. Maria De Jesus Estrada – Southwesterly one-half of Tract 17, all of Tract 18 and 19, and the Northeasterly one-half of Tract 20, Cyndie Park Unit 2, Nueces County, Texas

The Public Hearing on the Annexation Petitions for Victor Lee Castro and Jennifer Lee Salinas in Cyndie Park Unit 1 and Maria De Jesus Estrada in Cyndie Park Unit 2 was conducted prior to this meeting.

15. Resolution 24-04. Resolution approving Annexation of Certain Lands to the South Texas Water Authority. (Victor Lee Castro and Jennifer Lee Salinas).

16. Resolution 24-05. Resolution approving Annexation of Certain Lands to the South Texas Water Authority. (Maria De Jesus Estrada).

Mr. Graveley made a motion to adopt Resolution 24-04 and Resolution 24-05. The motion was seconded by Mr. Galvan and passed unanimously.

17. Texas excavation Safety System Annual Meeting and Ballots for Election of Directors and Bylaws Amendment.

Mr. Marez presented the Texas Excavation Safety System (TESS) official ballot to cast STWA's votes for the TESS Board of Directors and Bylaws Amendment. Ms. Lowman made a motion to vote in favor of the Bylaws Amendment, Ms. Garza seconded and all voted in favor. Ms. Garza made a motion to cast STWA's 10 votes for Molly Carriere, Ms. Lowman seconded and the motion passed by unanimous vote.

18. Administration Report.

Mr. Marez stated that due to recent rain levels the City of Corpus Christi has not moved forward with implementing Drought Contingency Stage 2 but continues to monitor conditions. He also reported that he will be meeting with Seven Seas soon to explore an alternate water source. Mr. Graveley voiced his concerns about lacking a second source of water and Mr. Marez agreed to include discussion of this topic on the next agenda

19. Adjournment.

Mr. Galvan made a motion to adjourn the meeting at 6:26 p.m. Ms. Garza seconded. All voted in favor.

Respectfully submitted,

A handwritten signature in cursive script that reads "Frances De Leon".

Frances De Leon
Assistant Secretary

ATTACHMENT 2

Quarterly Report/Treasurer's Report/Payment of Bills

Documents will be provided prior to the meeting.

ATTACHMENT 3

O&M Report

Memorandum

To: South Texas Water Authority Board of Directors and John Marez, Administrator
From: Patrick Sendejo, O&M Manager
Date: February 26, 2024
Re: O&M Activities

During the Week of January 1st:

Admin:

Holiday

Review GPS Records
City Gallons Report
Water Loss Report
TRWA Apprenticeship Weekly Hours Update (Noe Moreno)
Basic Water Training/Locate Training/CSI Training/Standard Operation
Procedure Training.

Operations:

Collect/Monitor NAP samples – STWA, RWSC & NWSC
Monitor residuals (Total, Free, Mono, FAA) for the Driscoll Booster Station on
the 42” line – Driscoll Before, Ave G, CR 16, Kingsville Meter Run &
RWSC Meter Run @ Office
Weekly CL 17 Verification
Locates – STWA, RWSC & NWSC
Meter Readings – NWSC, RWSC
Completed service orders for NWSC & RWSC.
Change out Combinations at Pump Stations
Put Driscoll Rural Chlorine Booster Back Online.
Leak Repair on GST @ PS#1-RWSC
Completed Taps - (Scheduled for January 2024)

Safety & Maintenance:

Safety Meeting:

#722 – (Safety First: Water Main repair DVD 14:00Min)

(Open crew discussion of safety concerns, and Crew discussions on all aspects of preventative maintenance, which includes time for any Q&A.)

Generators – Exercise Transfer Switch

Weekly Preventative Maintenance – Heavy Equipment, Lawn care equipment,
Leak equipment, Pump-station equipment.

Disinfect Pump Stations

Lawn care at Office and Pumpstations.

Office AC Maintenance, Main AC Filter Change out & Clean Ice Machine

Daily Vehicle Maintenance Report – Interior, Exterior & Under the Hood
Inspections

Cathodic Protection:

Weekly Monitoring of Rectifiers

During the Week of January 8th:

Admin:

Review GPS records
TRWA Apprenticeship Weekly Hours Update
TRWA Apprenticeship Visit – Patrick and Noe w/Jacquelyn Knobloch
Basic Water Training/Locate Training/CSI Training/ Standard Operation
Procedure Training.

Operations:

Collect/Monitor NAP samples – STWA, RWSC & NWSC
Monitor residuals (Total, Free, Mono, FAA) for the Driscoll Booster Station on
the 42” line – Driscoll Before, Ave G, CR 16, Kingsville Meter Run &
RWSC Meter Run @ Office
Weekly CL17 Verification
Meter Readings – RWSC
Meter Re-Reads – NWSC, RWSC
Locates – STWA, RWSC, NWSC
Completed Service Orders for NWSC and RWSC
Leak Repair on Banquete Rural Meter Run
Repair Leak on Central / Driscoll GST
Completed Taps - (Scheduled for January 2024)

Safety & Maintenance:

Safety Meeting:
#205 – (Safety First: Night Work DVD 15:00Min)
SOP Training – (LAS Ratio 4.5:1) / (Service Order Training)
**(Open crew discussion of safety concerns, and Crew discussions on all
aspects of preventative maintenance, which includes time for any Q&A.)**
Generators – Exercise Transfer Switch / Setup portable generator at PS#1 in
Ricardo as backup.
Weekly Preventative Maintenance – Heavy Equipment, Lawn care equipment,
Leak equipment, Pump-station equipment.
Daily Vehicle Maintenance Report - Interior, Exterior & Under the Hood
Inspections

Cathodic Protection:

Weekly Monitoring of Rectifiers

During the Week of January 15th:

Admin:

Holiday

Review GPS records

TRWA Apprenticeship Hour Updates

Basic Water Training/Locate Training/CSI Training/Standard Operation
Procedure Training.

Operations:

Collect/Monitor NAP samples – STWA, RWSC & NWSC

Monitor Residuals (Total, Free, Mono, FAA) for the Driscoll Booster Station on
the 42” line – Driscoll Before, Ave G, CR 16, Kingsville Meter Run &
RWSC Meter Run @ Office

Weekly CL 17 Verification

Locates – STWA, RWSC, NWSC

Flush RWSC, NWSC

Completed service orders for NWSC and RWSC

Repair leak on transmission line in Robstown

Pump Repair at Driscoll replaced rubber coupler

Lockouts – NWSC

Completed Taps – (Scheduled for January 2024)

Hire Field Technician Ernesto Duron

Safety & Maintenance:

Safety Meeting:

**(Open crew discussion of safety concerns, Crew discussions on all aspects of
preventative maintenance, which includes time for any Q&A.)**

Generators – Exercise Transfer Switch

Weekly Preventative Maintenance – Heavy Equipment, Lawn care equipment,

Leak equipment, Pump-station equipment.

Daily Vehicle Maintenance Report - Interior, Exterior & Under the Hood

Inspections

Cathodic Protection:

Weekly Monitoring of Rectifiers

During the Week of January 22nd:

Admin:

Review GPS records
TRWA Apprenticeship Hour Updates
STWA BoD
GIS Mapping
Basic Water Training/Locate Training/CSI Training/ Standard Operation
Procedure Training.

Operations:

Collect/Monitor NAP samples – STWA, RWSC & NWSC
Monitor residuals (Total, Free, Mono, FAA) for the Driscoll Booster Station on
the 42” line – Driscoll Before, Ave G, CR 16, Kingsville Meter Run &
RWSC Meter Run @ Office
Collect Bac-T Samples NWSC, RWSC, STWA
Weekly CL 17 Verification
Locates – STWA, RWSC, NWSC
Completed service orders for NWSC and RWSC
Repair rotameter at Bishop East
Move injection site at Driscoll Meter Run to inject chlorine at Driscoll GST
Repair high set point level switch on GST in Banquete – Villareal welding service
Requesting replacement pump and motor at Central to replace malfunctioned
pump. @ Odessa Pumps
Lockouts – NWSC, RWSC
Flushing – NWSC & RWSC
Completed Taps – (Scheduled for January 2024)
Pick up (2) New Work Trucks @ Sam’s Ford

Safety & Maintenance:

Safety Meeting:
**(Open crew discussion of safety concerns, and Crew discussions on all
aspects of preventative maintenance, which includes time for any Q&A.)**
Generators – Exercise Transfer Switch
Weekly Preventative Maintenance – Heavy Equipment, Lawn care equipment,
Leak equipment, Pump-station equipment.
Daily Vehicle Maintenance Report - Interior, Exterior & Under the Hood
Inspections

Cathodic Protection:

Weekly Monitoring of Rectifiers
Hire CP Lead Technician Hector Barbosa

During the Week of January 29th:

Admin:

Review GPS records
TRWA Apprenticeship Hour Updates
GIS Mapping
Basic Water Training/Locate Training/CSI Training/ Standard Operation Procedure Training.
Class D Course for Field Technician Lauro Bazan

Operations:

Collect/Monitor NAP samples – STWA, RWSC & NWSC
Monitor residuals (Total, Free, Mono, FAA) for the Driscoll Booster Station on the 42” line – Driscoll Before, Ave G, CR 16, Kingsville Meter Run & RWSC Meter Run @ Office
Meter Readings – NWSC
Change out Check Valve
Weekly CL 17 Verification
Locates – STWA, RWSC, NWSC
Completed service orders for NWSC and RWSC
Flushing – NWSC & RWSC
Completed Taps – 2

Safety & Maintenance:

Safety Meeting:
(Open crew discussion of safety concerns, and Crew discussions on all aspects of preventative maintenance, which includes time for any Q&A.)
Disinfectant By Products Training with Roel from TRWA
Generators – Exercise Transfer Switch
Weekly Preventative Maintenance – Heavy Equipment, Lawn care equipment, Leak equipment, Pump-station equipment.
Daily Vehicle Maintenance Report - Interior, Exterior & Under the hood

Cathodic Protection:

Weekly Monitoring of Rectifiers
Review with Hector Barbosa CP Procedures
Review w/Hector the 42” Plans/Contracts 1-3

During the Week of February 5th:

Admin:

Review GPS Records
City Gallons Report
Water Loss Report
TRWA Apprenticeship Hour Updates
GIS Mapping
Basic Water Training/Locate Training/CSI Training/ Standard Operation Procedure Training.

Operations:

Collect/Monitor NAP samples – STWA, RWSC & NWSC
Monitor residuals (Total, Free, Mono, FAA) for the Driscoll Booster Station on the 42” line – Driscoll Before, Ave G, CR 16, Kingsville Meter Run & RWSC Meter Run @ Office
Weekly CL 17 Verification
Locates – STWA, RWSC, NWSC
Completed service orders for NWSC and RWSC
Change out Combinations at Pump Stations
Lockouts – RWSC
Flushing – NWSC & RWSC
Completed Taps – (3)

Safety & Maintenance:

Safety Meeting:
(Open crew discussion of safety concerns, and Crew discussions on all aspects of preventative maintenance, which includes time for any Q&A.)
Generators – Exercise Transfer Switch
Weekly Preventative Maintenance – Heavy Equipment, Lawn care equipment, Leak equipment, Pump-station equipment.
Daily Vehicle Maintenance Report - Interior, Exterior & Under the hood

Cathodic Protection:

Weekly Monitoring of Rectifiers
Hector Revised Forms to provide an overview of CP operations.
Monitor CP on 42” Pipeline

During the Week of February 12th:

Admin:

Review GPS records
TRWA Apprenticeship Hour Updates
GIS Mapping
Basic Water Training/Locate Training/CSI Training/ Standard Operation Procedure Training.
Setup TCEQ Application for Victor Gutierrez for renewal of CSI license, and Lauro Bazan for new class D license.

Operations:

Collect/Monitor NAP samples – STWA, RWSC & NWSC
Monitor residuals (Total, Free, Mono, FAA) for the Driscoll Booster Station on the 42” line – Driscoll Before, Ave G, CR 16, Kingsville Meter Run & RWSC Meter Run @ Office
Weekly CL 17 Verification
Locates – STWA, RWSC, NWSC
Completed service orders for NWSC and RWSC
Lockouts – RWSC
Flushing – NWSC & RWSC
Completed Taps – (Scheduled for February 2024)

Safety & Maintenance:

Safety Meeting:
(Open crew discussion of safety concerns, and Crew discussions on all aspects of preventative maintenance, which includes time for any Q&A.)
Generators – Exercise Transfer Switch
Weekly Preventative Maintenance – Heavy Equipment, Lawn care equipment, Leak equipment, Pump-station equipment.
Daily Vehicle Maintenance Report - Interior, Exterior & Under the hood Inspections
Lawn care at Office and Pumpstations.

Cathodic Protection:

Weekly Monitoring of Rectifiers
Work on CP Report revising plan to apply impressed current to 42” Pipeline utilizing rectifiers instead of anodes
Locate vendor to purchase back anodes we have in stock to use funding to apply towards the purchase of rectifiers
Continue to monitor Cp on 42” pipeline

During the Week of February 19th:

Admin:

Holiday

Review GPS records
TRWA Apprenticeship Hour Updates
GIS Mapping
Basic Water Training/Locate Training/CSI Training/ Standard Operation Procedure Training.

Operations:

Collect/Monitor NAP samples – STWA, RWSC & NWSC
Monitor residuals (Total, Free, Mono, FAA) for the Driscoll Booster Station on the 42” line – Driscoll Before, Ave G, CR 16, Kingsville Meter Run & RWSC Meter Run @ Office
DR900 Calibrations
Collect Bac-T Samples
Weekly CL 17 Verification
Locates – STWA, RWSC, NWSC
Completed service orders for NWSC and RWSC
Lockouts – RWSC
Flushing – NWSC & RWSC
Completed Taps – (3)

Safety & Maintenance:

Safety Meeting:

(Open crew discussion of safety concerns, and Crew discussions on all aspects of preventative maintenance, which includes time for any Q&A.)

Generators – Exercise Transfer Switch
Weekly Preventative Maintenance – Heavy Equipment, Lawn care equipment, Leak equipment, Pump-station equipment.
Daily Vehicle Maintenance Report - Interior, Exterior & Under the hood
Lawn care at Office and Pumpstations.

Cathodic Protection:

Weekly Monitoring of Rectifiers
Review CP Report
Continue to monitor CP on 42” pipeline

ATTACHMENT 4

Cathodic Protection

Memo

To: South Texas Water Authority Board of Directors
From: John Marez, Exec Dir/Admin
Date: February 22, 2024
Topic: Cathodic Protection Report: Presentation & Update on Bid for Rectifiers

Background:

During our January 15, 2024 meeting, management announced the hiring of a NACE Certified Cathodic Protection Tech. Hector Barbosa has years of experience with CP in the Oil/Gas Industry. His experience and enthusiasm to tackle our 42" Transmission Line is already proving invaluable. Hector has thoroughly researched our transmission line and has identified prospective projects that he can direct in-house as a cost-savings matter for the Authority.

Analysis:

Provided is a list of five exhibits (bids) placed by outside contractors with their respective amounts. Based on Mr. Barbosa's input in-house designs of protecting our main transmission line could cut cost in half:

****Exhibit A (Corrpro):****

- Quote: \$67,810.00 for a 10-inch by 250 ft deep well with MMO anodes.
- Additional costs may apply due to "QUALIFIERS."

****Exhibit B (ALPHA Pipeline Integrity Services):****

- Quote: \$90,000.00 for a 10-inch by 290 ft bore hole with 12 Lida anodes and a 20-volt 20-amp rectifier. One-day completion commitment.

****Exhibit C (First Corrosion Solutions, LLC):****

- Quote: \$62,000.00 for a 10-inch by 200 ft bore hole with 6 1" x 40" MMO anodes. No specifications on rectifier.

****Exhibit D (FARWEST CORROSION CONTROL COMPANY):****

- Quote: \$374,740.00 for 4 CP deep well beds as per Hector Barbosa's specifications. Totaling \$93,685.00 per site.

****Exhibit E (The Loftis Company):****

- Quote: \$38,983.00 per ground bed site based on STWA design. Potential additional costs expected, estimating \$50,000.00 due to add-ons.

Considering the variations in offerings and potential additional costs, we should carefully assess each option's suitability for our project requirements and budget constraints.

Memo
2/22/24
Page 2 of 2

Staff Recommendation:

Approve Mr. Barbosa's designs and lead to adopt an in-house, cost-savings approach to protecting our Main Transmission line.

Board Action:

Determine whether to approve the best bid.

Summarization:

Mr. Barbosa is familiar with all current methods to protect our system with rectifiers and anodes. Approving the in-house bid will streamline our approach to completing the task of preserving our 42" line while saving funds in the process.

To: STWA

From: Hector Barbosa NACE Corrosion Technologist # 186086

Date: FEB 21, 2024

Re: STWA 42" MAIN LINE UPDATE

Contract 1 has been surveyed and I have installed in line shunts to record amperage if any from sacrificial anodes. 50% of line meets criteria based on localized anode reading the other 50 % of line is below criteria due to depleted anodes. to describe localized anode protection means that it is only protecting in a very small localized area and not the entire section off pipe. Contract 2 is in the same condition by installing shunts the amperage going to pipe is .001 milliamp's Contract 3 is the same as contract 2.

I highly recommend impressed current system installed thru out line. I have dissected the 26 miles in 4-part sections and have assigned a rectifier and ground bed to the four locations. Locations are approximately 5 miles apart. 1 has power at county road 4. Co RD 12 and co RD 36 have been staked out by NEC today to start process for power pole installs, accounts have been set up for CO RD 12 And CO RD 36. At CO RD 28 it is AEP and am working on it.

TCEQ well drilling permits have been verified and accepted with TCEQ and RRC, we are safe to drill and depth of hole is above the usable quality ground water.

All preparations and permits have been acquired to proceed in a safe and legal manner.

I am waiting on authorization to proceed with project. The reason, I need to order rectifier's which take the longest to build 6 to 8 weeks. I was hoping to get project in before farmers plant their crops.

I have prepared some power points that will explain the difference of a galvanic cell and impressed cathodic protection. Also, on how a deep well works vs anodes. Some prices to compare with STWA installs and outside contractors installs.

The difference I can save money for STWA is not cutting quality but cutting out the middle man I buy directly from the manufacture and not the dealer 15 to 30 % percent on materials and labor and cost off travel and profit margins add up. I know this business very well and have been doing since 1995.

Pleas take time to look at pricing of STWA VS cheapest contractor.

Thank You

Hector Barbosa

Quote for deep well

Exhibit A On 08 30 2023 a quote by Corrpro was submitted to STWA for a 10 inch by 250 ft deep well with MMO anodes number of anodes was no specified no rectifier was mentioned in the quote. the total price is \$67,810.00. additional cost will be added to price on what they call **QUALIFIERS**.

Exhibit B ALPHA 08 030 2023 Pipeline Integrity Services submitted a quote for **\$90,000.00**
For a **10 inch by 290 ft** bore hole and load with 12 Lida anodes with a 20-volt 20-amp rectifier. The job was to be completed in one day.

Exhibit C First Corrosion Solutions, LLC submitted a quote of **\$62,000.00** for a **10inch by 200 ft** bore hole loaded with 6 1" x 40" MMO anodes with no specs on rectifier.

Exhibit D FARWEST CORROSION CONTROL COMPANY Submitted a quote for 4 cp deep well beds as specified By Hector Barbosa STWA CP Technologist.
The total for all 4 beds came to a total of \$ 374,740.00 which is \$ 93,685.00 per site.

Exhibit E The Loftis company Submitted a quote of \$38,983.00 per ground bed site based on the STWA design. The Loftis company quotes a base price but usually ground beds come out at \$ 50,000.00 because off there add Ons.
In my experience with them since 1995.

Exhibits A through E are provided for comparison.



Houston Branch
7000 A Hollister St. Houston, TX 77040
713.460.6000 | www.Aeglon.com

Oscar Ortegon
361.219.0869
oortegon@stwa.org

Exhibit A

October 11, 2022

Lump Sum Proposal for Cathodic Protection Design/Build Services
South Texas Water Authority CP Design/Build | AAJA-105KHK3
Kingsville, TX

Quote by 8/30/23

2nd quote needed for ground bed

Corrpro is pleased to provide our proposal for cathodic protection materials and services in support of the referenced project in Kingsville, TX.

SCOPE OF WORK | CATHODIC PROTECTION DESIGN/BUILD

Corrpro proposes to perform the following scope of work:

1. Cathodic Protection System Design

- a. Field study to determine design parameters and perform constructability assessment.
- b. Design calculations and submittal creation.
- c. Manufacturer catalog cuts or other descriptive information for the specific materials required on this project for approval.
- d. Construction layout and detail drawings.

It is expected that the above will require a field survey duration not to exceed 1 day on site.

2. Materials Procurement

- a. Verify acceptance of design submittal.
- b. Order materials and provide shipping information.
- c. Supply primary corrosion control materials conforming to the design
- d. Provide electronic delivery confirmation (delivered materials become the responsibility of the recipient upon delivery acknowledgement)

3. Impressed current cathodic protection (ICCP) system installation

- a. Place 811 notification call
- b. Confirm all materials delivered
- c. Mobilize drill crew to site
- d. Conduct site walk and JSA
- e. Drill anode ground bed to completion; preliminary design considers 10' x 250' deep.
- f. Perform electrical resistance tests with logging anode
- g. Load mixed metal-oxide (MMO) anodes
- h. Install vent pipe and coke column
- i. Sound coke column with weighted tape
- j. Dispose of drill cuttings on location
- k. Excavate pipeline and install negative connection

- l. Install rectifier as shown on drawings
- m. Connect anode and pipe leads to rectifier
- n. Cleanup site and return to as found conditions
- o. Demobilize from site

4. **System commissioning**

- a. Corrpro will provide a NACE Certified Corrosion Technician to commission the Cathodic Protection System
 - i. Measure Initial potentials
 - ii. Energize Rectifier
 - iii. Measure and record "On" and "Instant-Off" potentials at predesignated test point locations
 - iv. Adjust rectifier as required
 - v. Measure final Anode outputs
- b. Once all onsite commissioning procedures have been completed Corrpro will provide a commissioning report that will include the following:
 - i. Results of testing
 - ii. Recommendations

MATERIALS SUPPLIED BY CORRPRO

Corrpro will provide materials related to the following items:

- Exothermic Weld material
- Repair coating associated with structure connections
- Rectifier
- DC Cabling for Impressed current system
- Anodes
- Associated materials for installation of anodes
- Conduit for DC cabling
- Anode Junction Box



PRICING SUMMARY

Corrpro will provide the above items for the below pricing.

PRICING TABLE	
ITEM	TOTAL
Cathodic Protection Design	\$12,765
Cathodic Protection Materials	\$20,295
Cathodic Protection Installation	\$26,800
Commissioning and Report	\$6,620
Fuel Surcharge	2%
Estimated Total:	\$67,810

Pricing does not include applicable taxes which will be added to progress invoices.

SERVICES TO BE PROVIDED BY OTHERS

1. Supply and Installation of the following:
 - AC Service to Rectifier
 - Concrete work, if applicable
2. The right of ingress, egress, and access to all properties necessary for completion of the work.
4. Asphalt, additional gravel, grass, sod, crop damage or replacement, etc. if required.
5. Matting, hydro-excavations, and spoil disposal if required.

QUALIFIERS

1. Taxes, if applicable, are not included and will be added to progress invoices. Please supply a tax exemption and/or direct pay certificate if applicable.
2. Pricing includes up to 2 revision cycles for design/material submittal revisions. Additional revisions will be an additional fee.
3. Corrpro is not responsible for locating and repairing any utility lines not affiliated with the One Call system, and therefore considered un-locatable, nor are responsible for any damage that may occur. This would include such items as irrigation systems, sewer service lines, water service lines, satellite lines, private electric lines, private gas lines, pool line, underground security fences, etc.
4. Production rates for schedule are based on 60' ROP per hour. If Corrpro encounters any adverse drilling conditions less than 30' ROP per hour, hard rock, and/or loss circulation, then labor and materials will be charged per the MSA # referenced above or 2022 Corrpro Standard Rate Sheet and materials will be supplied at cost plus 15%.
5. Corrpro will run logging anode and determine if additional clean-out runs are required at our sole discretion.
6. Corrpro's pricing does not include asbestos removal or disposal services, traffic control, matting, vacuum truck services, etc. Should Corrpro be requested to provide these services via a fully executed Change Order, Corrpro shall provide such services via subcontractor at cost plus 15%.
7. Corrpro shall not execute any work not outlined in this quote without a fully executed Change Order.

-
8. If order is cancelled or changed after materials have been ordered, a 30% restocking fee will be charged. A 100% restocking fee will be charged for all electrical components (rectifiers, junction boxes, meter loops, circuit breakers, etc.)
 9. Post-backfill testing to comply with specifications based on proper installation of materials. Does not include specialized procedures that may be required for deficient work, troubleshooting, or retesting/reporting. Corrpro will notify contractor in the field should such additional services be warranted.
 10. Progress invoicing as materials are delivered and services are performed. Invoices payable to Corrpro will be net 30-days from date of receipt.
 11. Materials are a commodity whose price is volatile on markets. The prices quoted are based on the present value of associated materials. In the event of a change in price greater than 5% for any item, Corrpro's pricing is subject to change at time of order placement.
 12. STWA is to supply a tax exemption and/or direct pay certificate if applicable.
 13. This proposal is in alignment with Corrpro's Standard T&C's which can be found here [CorrproUSStandardTermsandConditions.pdf \(aegion.com\)](#) or [Corrpro-Canada-Standard-Terms-and-Conditions-2019630.pdf \(aegion.com\)](#)

We appreciate the opportunity to submit this estimate. Please contact me at **281.770.8790** or via email at Mspeights@aegion.com if you have any questions or require any further information regarding this estimate.

Best regards,



Matthew Speights
Business Development
C: 281.770.8790
Mspeights@aegion.com



Houston Branch
7000 A Hollister St. Houston, TX 77040
713.460.6000 | www.Aeglon.com

ISO-9001 QUALITY ASSURANCE VERIFICATION		
Proposal Prepared By:	Cliff Marshall	Estimator
Approved By:	Steven Padden	Regional Engineering Manager
Approved By:	Johnathan Gray	Construction Manager, NA



Exhibit B

11/23/22

SWTA

2302 East Sage Road
Kingsville, TX 77536

Attn: Mr. Ortegon

Via email: Oortegon@stwa.com *ova*

Proposal 22-00876

Reference: Rectifier Anode Bed installation

Dear Mac,

Alpha Pipeline Integrity Services is pleased to submit the following proposal for your consideration. Our scope of work will include install of anode beds an rectifier along qualified Project supervisor NACE 1 and 2 technicians .

Alpha is pleased to present our proposal to provide labor, supervision, equipment, transportation, subsistence, and formal report needed to provide the below recommendations technicians per above referenced specs.

Total project for all items: \$90,000

The work will last approximately one eight-hr. day dependent upon plant access. Our terms for payment are Net 30 for each invoice. The cost to perform the work listed above is \$90,000 We appreciate your interest in Alpha Pipeline Integrity Services and look forward to performing this project.

If you have any questions concerning information or specifications in this proposal, please do not hesitate to contact me.

Best Regards,

Kevin Canizaro

Kevin Canizaro

Regional Sales Manager

~~(832) 799-2818~~

William Palacios

281-352-2010

Kevin.Canizaro@alphaleak.com

BILL OF MATERIALS

Q#15134

11/16/2022

ALPHA LEAK

INSTALL A 8"X260' DEEP ANODE GROUNDBED
KINGSVILLE, TX - HWY 77 COUNTY ROAD

KEVIN CANIZARO

KEVIN.CANIZARO@ALPHALEAK.COM

DEEP ANODE

QTY	DESCRIPTION			
1	SET OF 12- LIDA 1"X60" MIXED METAL OXIDE ANODES WITH NO. 8 HALAR CABLE LL 290' ON 10' CENTERS			
12	VENTRALIZERS			
10	FEET OF NO.2 RED POSITIVE HMWPE CABLE			
50	FEET OF NO, 2 BLACK NEGATIVE HMWPE CABLE			
1	CADWELD CONNECTION			
1	COATING REPAIR KIT			
75	50# BAGS OF LORESCO SC-3 COKE BREEZE			
1	12-CIRCUIT SHUNTED JUNCTION BOX IN GALV ENCLOSURE WITH 2" PVC HUB			
20	FEET OF 8" SCH 40 PVC CASING			
1	8" PVC WELL CAP			
55	50# BAGS OF BENTONITE HOLE PLUGS			
5	50# BAGS OF SUPER GEL X DRILLING MUD			
LOT	JBOX/RECT CONDUIT, TAPE, FLEX & AC/DC HARDWARE, CAUTION TAPE			
1	2" LONG SWEEP 90'S GREY PVC			
30	FEET OF 2" GREY PVC PIPE			
120	FEET OF 1" PVC VENT PIPE			
180	FEET OF 1" PVC SOLID PIPE			
2	1" PVC CAPS			
4	1" PVC 90'S			
LOT	SEED & STRAW (1) BAG OF SEED & (16) STRAW BALES			
1	25' AC DISCONNECT POWER POLE METER LOOP ASSEMBLY			
1	TIDEWAY 20V-20A AIR COOLED POLE MOUNT RECTIFIER IN GALV ENCLOSURE, 120/240 VAC, 1-PHASE			

* CONTRACTOR TO COMPLETE ALL ONE CALLS

* ELECTRICAL AC POWER DROPPED TO NEW POLE PROVIDED BY OTHERS



**FIRST
CORROSION
SOLUTIONS, LLC**

Exhibit C

November 23, 2022

Quote 112322.STWA.OO.GB

Oscar Ortegon
Pipeline Technician
South Texas Water Authority
Kingsville, Texas
(361) 219-0869
oortegon@stwa.org

quote by 8/28/23

Scope of Work

Cathodic Protection Deep Well Ground Bed Installations – Kingsville, Texas

First Corrosion Solutions, a subsidiary of First Instrument Solutions is pleased to provide you with this quotation.

Please find our price quote below to install a cathodic protection deep well for South Texas Water Authority by Hwy 77 near Kingsville, Texas.

Description	Location	Type	Price each
Cathodic Protection Deep Well Ground Bed, 200 feet	Kingsville, Texas area	New ground bed	\$ 62,000.00*
*plus, applicable sales tax			

Our pricing assumes that we will have ready access to the job site locations and that South Texas Water Authority will furnish all general and hot work permits, if necessary, to complete the project.

Pricing subject to changed based on items listed below or not covered in the original job scope.

1. Any company-specific education and safety training courses or certifications required may be billed at cost plus 15%. Site-specific orientation is excluded from additional billing.
2. The drilling costs for the ground bed may vary based on TRRC GW-1/GW-2 Reports. If environmental or non-environmental casing is required by TRRC, there will be an additional charge for material, labor and equipment based on casing depth. Additional permitting may be required by TRRC.
3. Specialty equipment other than required under the scope of this project will be charged at T&M rates.
4. All change of work orders will be in writing and approved by South Texas Water Authority personnel and First Corrosion Solutions personnel and may be subject to additional charges.
5. Delays due to conditions at job site locations not under the control of First Corrosion Solutions may be subject to additional charges.



FIRST CORROSION SOLUTIONS, LLC

Each ground bed will consist of:

1. One set of 6 1"x40" MMO anodes with #8 Halar cables on 10-foot centers with longest lead of 260 feet.
2. Nominal 10" diameter hole, 200' depth of hole, 20' of backfill above top anode, 10' spacing between anodes, 5' spacing of backfill below bottom anode, 78 feet of active column.
3. Active column will be backfilled with Loresco SC3 coke breeze.
4. Inactive column, 122 feet, will be sealed with bentonite plug (top of plug to within 3' of grade).
5. Loresco AllVent and solid PVC Vent pipe will be installed, 1" single vent setup.
6. Anode cables will be connected to new anode junction box.
7. New Universal rectifier will be re-installed on new pole.
8. New meter loop built to power company specs will be installed by FCS.
9. Positive cable from anode junction box will be connected to new rectifier.
10. New negative cable from rectifier to pipeline will be installed.
11. #2 HMWPE cable will be used for positive and negative connections to the rectifier.
12. First Corrosion Solutions can assist with filing TRRC GW1.
13. Driller will utilize portable pit for drilling operations, if required
14. First Corrosion Services will provide a roll off container for holding drilling mud and cuttings.
15. South Texas Water Authority will provide an on-site location for disposal of non-hazardous drilling mud and cuttings, if on-site disposal is not available South Texas Water Authority may be responsible for off-site disposal charges.
16. First Corrosion Solutions will provide a vacuum truck, as necessary, to empty the roll off container and for disposal of non-hazardous drilling mud and cuttings.
17. Mats are not included in this quote and will be invoiced at cost plus 15%, if necessary.
18. If necessary, our hydrovac trailer will be used to excavate for running negative and positive cables.
19. If necessary, South Texas Water Authority electrician will make the final electrical service connections to the rectifier.

Price is valid for 30 days from date of this proposal due to market pricing volatility.

Please indicate your approval by providing First Corrosion Solutions with an approved purchase order. We will order materials and schedule crews and equipment as soon as we receive your acceptance. The work will begin thirty days from the date the project is awarded, dependent on GW1/GW2, contract driller availability and materials delivery.

Best Regards,

Roland Gonzalez
CP Manager
First Corrosions Solutions
5853 Leopard St.
Corpus Christi, TX 78408
Mobile (956)763-0135



EXHIBIT
D

Farwest Reference: Q 24-12309



FARWEST CORROSION CONTROL COMPANY

Gulf Coast Regional Office
14025 Interdrive East, Houston, TX 77032
281.446.9558 | estimating@FarwestCorrosion.com



FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
Products • Engineering • Installation

January 30, 2024
Q 24-12309

Hector Barbosa
South Texas Water Authority

Re: STWA Deep Anode Groundbed Package

Mr. Barbosa,

Farwest Corrosion Control Company (Farwest) would like to thank you for the opportunity to provide STWA with pricing for the CP Materials and installation of Four (4) Deep Anode Groundbeds near Nueces County, TX. The proposal will consist of the following:

Section 1 – Deepwell Groundbed Installation

- Section 1.1 – Deepwell Groundbed Installation Deliverables

Section 2 – Post Installation Deliverables

- Section 2.1 – Post Installation Testing and Reporting

Section 3 – Installation Notes

Section 4 – Pricing

Section 5 – Construction Extras

Section 6 – Construction Exclusions, Assumptions and Limitations

Section 7 – Schedule & Timeline

Section 8 – Payment Terms





Deepwell Groundbed Installation Services

1.1 – Deepwell Groundbed Installation Deliverables

- Obtain Groundwater Determination Letter (GW-2) for each groundbed location
- Notify TX-811 for all utility locations prior to project start.
- Install 10" x 320' deep anode groundbed per the acquired design specifications and drawings
 - 20' of 10" SCH 40 is to be provided by others unless requested
 - Deepwell groundbed to be drilled using a Mud-Rotary Drill Rig
- Furnish and install a total of fifteen (15) 4" x 80" Graphite Anodes with #8 AWG HMWPE cable for each anode.
- Furnish and install one (1) 1-in. vent pipe within the coke column above the coke column to terminate at the new anode junction box
- Pump Loresco SC3 coke breeze from the bottom of the hole to ensure the active coke column.
 - The Loresco SC3 is to be pumped using a Positive Displacement Pump.
 - The coke breeze will be allowed a minimum of five (5) hours or overnight to settle prior to the sealing of the well.
 - Furnish and install 30V/60A Air Cooled Rectifier
- Furnish and install one (1) 15 Circuit Galvanized Steel Junction Box w/RS Shunts
- All AC Materials/Installation to be provided by others.
- Restore site to original condition

Section 2 – Post Installation Deliverables

2.1– Post Installation Testing and Reporting

Farwest will provide the following post construction deliverables to ensure the proper installation of all cathodic protection systems.

- Provide an Amperage Log per location (if requested)
- Provide as-built drawings for project per location
- Perform functional testing of newly installed Deepwell Groundbed

Section 3 – Installation Notes

- It is assumed that the new Deepwell Groundbed will not be more than one hundred fifty (150) feet from the new anode junction box
- It is assumed that the new junction box will not be more than one hundred fifty (150) feet from the new rectifier.





FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
 Products • Engineering • Installation

Section 4 – Pricing

Deepwell Groundbed Installation – STWA ICCP Installation	Pricing
Materials for 10" x 320' Deepwell Groundbed (4) Locations	\$109,360.00
Installation Pricing for 10" x 320' Deepwell Groundbed (4) Locations	\$265,380.00
Total	\$374,740.00

4
 = 93,685
 Per site

MATERIAL DESCRIPTION –(Per Location)	UNIT	QTY.
30V/60A UNIVERSAL RECTIFIER ASAI ABC RECTIFIER	ea	1
4" x 80" WAX TREATED GRAPHITE ANODES	ea	15
#8 BLACK STR HMWPE WIRE (PER CUSTOMER REQUEST)	ea	4,200
LORESCO SC-3 COKE BREEZE (Farwest calculates 7,200# needed per location)	lb	4,000
1" LORESCO ALLVENT	ft	180
1" SCH 40 PVC SOLID PIPE	ft	160
LORESCO PERMAPLUG	lb	1,550
1" SCH 40 PVC ELBOW 90 DEGREE	ea	4
1" SCH 40 PVC CAP	ea	2
#2 HMWPE STR RED WIRE	ft	150
#2 HMWPE STR BLACK WIRE	ft	150
18x18x6 GALVANIZED 15 CIRCUIT W/TYPE RS SHUNTS, ONE COMMON	ea	1
HEADER KPA-25 LUG	ft	
PEA GRAVEL	lot	1

Materials Listed above are per location

Farwest pricing for Deepwell Groundbed Materials is based on the items listed above. Any additional materials needed to complete the project will come at additional costs

Section 5 – Construction Extras

- Assumed the lump sum pricing is based on provided documents, any changes in construction plans and CP system designs may result in changes to this pricing.
- Farwest to provide 4000# of Lorecco SC-3 Per customer request. Farwest calculates that to have an 180' active Coke column, there will need to be a minimum of 7,200#.
- If GW-2 Groundwater Determination Letter dictates the need for additional ground water protection, a drilling permit may be required. Provisions would then have to be made and agreed upon prior to moving forward on the project.
- Also, additional materials may be required if a GW-1 is required. The additional materials will be charged at Cost plus 15%.
- Pricing based on an estimated 150' of trenching for the total project. If additional trenching is needed it will come at additional costs.
- Commissioning/Post Installation Testing not included in the above pricing.
- Although not anticipated, an additional cost at a rate of \$750.00 per hour would apply if a large quantity of groundwater is encountered (i.e. artesian well) when a deep anode ground bed is installed.





FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
Products • Engineering • Installation

- Materials & Installation pricing does not include providing the AC service to the rectifier, AC service drops, AC Service Disconnects, and coordination for AC power to the rectifiers not included.
- Pricing does not include the use of construction matting.
- Pricing for vacuum excavator is estimated at (2) days per location. If additional days are needed to complete the project, it will come at additional cost. (1) Roll-off will be included in this proposal.
- Any work stoppage outside of Farwest's control due to but not limited to permitting, evacuation, loss of circulation, weather, or any other occurrence, will be charged at a rate of \$750.00 per hour.
- In the unlikely event that rock formations (such as boulders, granite, or similar) are encountered during the well drilling process, it will be necessary to invoke a "rock clause", at that point an additional \$750.00/hour will be applied to the original lump sum price quoted above for the use of a Diamond-Rock Drill Bit.
 - *In addition, if rock is encountered in the anode zone, it may not be possible to complete the drilling project as designed and other options will need to be explored.*
- Any additional materials required outside or in addition to the specified quantities requested by South Texas Water Authority shall be billed in addition to the original quoted price at cost +15%.
- All monetary changes will be made via Company approved change order.
-

Section 6 – Construction Exclusions, Assumptions and Limitations

- It is assumed that there is full access to the area of work. Any other provisions for access to the work site may be at an additional cost.
- Pricing does NOT include traffic control.
- Due to rapidly changing material and freight costs, which are beyond our control, all product prices provided in this proposal are subject to escalation or de-escalation at the time of an order or after submittal approval.
- Sales tax is not included but will be added at the time of order.
- Freight costs are not included but will be invoiced to the purchaser as prepay and added unless specific shipping instructions are provided at the time of order.
- Farwest Corrosion Control Company will not be held responsible for the handling and/or the disposal of any materials deemed "hazardous" found within the excavation area. If hazardous materials are encountered, it will be the sole responsibility of the facility owner/operator as the waste generator, to legally handle and dispose of these materials.
- Pricing does not include excavation of the pipeline to install negative leads and/or test leads.

Section 7 – Schedule & Timeline

Scheduling can be made upon acceptance of the proposal.

Section 8 – Payment Terms

Payment terms for this project are Net 30 days. Due to fluctuating material pricing, this proposal will be considered valid for fourteen (14) days from the proposal date. Any applicable taxes will be added to the final bill on the date of invoicing.





FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
Products • Engineering • Installation

Thank you again for the opportunity to provide STWA with our services and materials. Should you have any questions or need additional information, please feel to contact me at your convenience.

Sincerely,
Farwest Corrosion Control Company

Ryan Bailey - Estimating Manager 



FARWEST CORROSION CONTROL COMPANY
INTEGRITY | SERVICE | QUALITY

CERTIFIED MINORITY BUSINESS ENTERPRISE (MBE)



14025 Interdrive East, Houston, TX, 77032
Office: (281) 446-9558 | Fax: (281) 446-9241
RBailey@Farwestcorrosion.com
<https://www.FarwestCorrosion.com>

If you want to proceed with an order, sign the following and return the documents to Farwest, which thereby authorizes Farwest to proceed with a purchase order per our above proposal and attached Standard Terms & Conditions.

Client Approval: (Complete below):

Authorized Signature

Typed or Printed Name

Title

Date

Purchase Order Number





FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
Products • Engineering • Installation

FARWEST CORROSION CONTROL COMPANY STANDARD TERMS AND CONDITIONS

FARWEST CORROSION CONTROL COMPANY, a Texas corporation, is referred to herein as "Farwest." The person, firm, or corporation to whom or which these Standard Terms and Conditions apply is called "Customer." Farwest and Customer may be referred to as a "Party" or collectively as the "Parties" as appropriate. The products and/or services covered by these terms and conditions are referred to herein as the "Products". These Standard Terms and Conditions are referred to herein as "Terms and Conditions."

1. SCOPE OF AGREEMENT / ACCEPTANCE OF TERMS AND CONDITIONS. Unless expressly provided otherwise in a writing signed by Customer and Farwest (including any written agreement between Customer and Farwest), these Terms and Conditions, Farwest's warranty certificate, if any, and any other documents expressly identified, shall be considered contract documents (collectively, the "Agreement"). Any terms that add to or contradict the terms of this Agreement are not valid. These Terms and Conditions apply to all products and services provided by Farwest, unless otherwise expressly agreed upon in a written document signed by Farwest and Customer. Neither course of prior dealings nor usage of trade shall be relevant to supplement or explain any provision of this Agreement. Delivery of Products, acceptance of payment or any inaction by Farwest shall not constitute Farwest's consent to or acceptance of any additional or different terms or conditions, except for terms in an order placed by Customer and signed by both Customer and Farwest. Any conflicting statements or terms listed on Customer's purchase orders, invoices or confirmations or other documents created, provided or offered by Customer ("Customer's Documents") are negated by these Terms and Conditions and all differences or additional terms and conditions contained in any Customer's Documents are hereby expressly objected to by Farwest. Farwest's performance of any contract is expressly made conditional on Customer's agreement to these Terms and Conditions unless otherwise specifically agreed to, in writing, by Farwest.

2. PAYMENT TERMS; TAXES; LATE FEES; PERMITS; ATTORNEYS' FEES AND COSTS; WAIVER. Except for any provisions set forth in a subsequent written document signed by both Farwest and Customer, all sums due and owing to Farwest for any Product and/or work shall be paid on a net 30-day basis. Customer acknowledges and agrees that Farwest shall have the right to require the payment and receipt of an advanced payment and/or deposit, as set forth on any purchase order and/or invoice, prior to the commencement of any work. Farwest's prices do not include sales, use, excise or similar taxes, duties or levies. Customer shall be responsible for payment of any applicable sales, use, excise or similar taxes, duties or levies (collectively, "Taxes") now or hereafter imposed by any governmental authority on the manufacture, sale, delivery and/or use of the Products covered hereby, or, in lieu thereof, provide Farwest with tax exemption certificates acceptable to the taxing authorities as required. In the event Farwest is required to pay any Taxes, Customer shall reimburse Farwest. Except to the extent assumed by Farwest in writing, Customer shall secure and pay for all permits and fees necessary for the delivery and installation of the Products or performance of the services. In addition to Farwest's other remedies, Customer agrees to pay "Late Fees" on any overdue payments at the rate of 1½% per month (18% annually), or the maximum amount permitted by law, whichever is



FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
Products • Engineering • Installation

less, until fully paid, including any interest due. In the event of any default in payment pursuant to the terms and conditions set forth herein, Customer shall pay all costs incurred by Farwest in collecting from Customer any amounts due Farwest, including reasonable attorneys' fees and costs, notwithstanding the collection of such claim. Farwest may, at its sole option, refuse, delay, or change the terms of shipments for failure by Customer to pay promptly any payments due Farwest, whether on this or any other contract between Customer and Farwest. The waiver by Farwest of any breach hereof or default in any payment shall not be deemed to constitute a waiver of any succeeding breach or default. In the event of default, Farwest shall have all the remedies provided under the California Uniform Commercial Code, which shall be cumulative with one another and with any other remedies that Farwest may have, without limitation, at law, in equity, under any agreement of any type. The exercise or failure to exercise any remedy shall not preclude the exercise of that remedy at another time or any other remedy at any time. If, at any time, prior to performance (either complete or partial), Customer does not meet Farwest's credit approval or Farwest, in its sole discretion, deems Customer's financial condition to be unsatisfactory, Farwest may either: (a) delay or postpone performance of services; (b) cancel the Agreement; or (c) request payment in full or other security satisfactory to Farwest from Customer prior to the performance of services.

3. DISCLOSURES AND WARRANTIES. Farwest represents and warrants that all products shall be made according to all plans and specifications submitted to Farwest by Customer and as accepted by Farwest, and that all such Products shall be made in accordance with commercially acceptable standards. **EXCEPT AS EXPRESSLY PROVIDED OTHERWISE IN A WRITING SIGNED BY BOTH CUSTOMER AND FARWEST, FARWEST MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS ANY AND ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FARWEST MAKES NO WARRANTY WITH RESPECT TO WHETHER THE PRODUCTS SOLD HEREUNDER INFRINGE ANY PATENT, COPYRIGHT OR TRADEMARK; U.S. OR FOREIGN; AND CUSTOMER REPRESENTS AND WARRANTS THAT, TO THE BEST OF ITS KNOWLEDGE, SUCH PRODUCT OR USE OF SUCH PRODUCT DOES NOT VIOLATE ANY PATENT, COPYRIGHT OR TRADEMARK; U.S. OR FOREIGN.**

4. SPECIFICATIONS. Customer warrants that any documents, drawings, designs or specifications furnished to Farwest by Customer or any party acting on behalf of, or under direction from, Customer (collectively, "Specifications") are complete, accurate and may be reasonably relied on by Farwest. Farwest shall have no liability for errors, omissions or inconsistencies in any Specifications. In the event the Agreement contains submittal requirements pertaining to the Products or services, Farwest agrees to submit in a timely fashion to Customer, for review and approval, any drawings, samples, product data, manufacturer's literature or similar submittals as Customer may reasonably request. Customer shall be responsible for review and approval of submittals with reasonable promptness to avoid causing delay.

5. CHANGE ORDERS. Changes to the quantity, specifications, scope of supply or performance, delivery schedule, period of performance, shipping instructions or any other material terms of the Agreement, may only be made by Customer and Farwest executing a





FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
Products • Engineering • Installation

written change order ("Change Order"). Any Change Order shall state the parties' agreement on: (a) change in the material term of the Agreement; and (b) an adjustment to the purchase price or the date of shipment or period of performance, as applicable. Both parties agree that, unless a Change Order is agreed to, in writing, and is signed by the authorized representative of each party, respectively, the Agreement shall not be changed or modified in any manner. In addition, Farwest has the right to suspend performance during the period while the change is being evaluated and negotiated. In the event Customer has communicated proposed changes to Farwest, Farwest, in its sole discretion, shall either: (i) accept the Change Order; (ii) reject the Change Order and continue performance under the existing Agreement; or (iii) cancel the Agreement. In the event that Farwest elects (ii) above, Customer shall have the option to cancel the Agreement.

6. DEFAULT / CANCELLATION. If Customer fails to perform any of its obligations under this Agreement, including failure to make payments as provided in this Agreement or otherwise, or if Customer fails to give prompt assurances of future performance when requested by Farwest, then Farwest may, on five (5) days' written notice to Customer, declare Customer to be in default and Farwest may suspend or terminate performance of its obligations under this Agreement without liability and retain all rights and remedies Farwest may possess at law, in equity or as provided in these Terms and Conditions. In addition to the remedies above, to the extent that: (a) Farwest declares a default under this Section 6; or (b) if the order is cancelled for any reason other than default by Farwest, Customer agrees to pay Farwest on demand 100% of the quoted price for any Products for which Farwest has commenced work, regardless whether Products are completed, plus any charges for packing and storing any of the aforementioned Products or de-mobilizing for Products.

7. TECHNICAL ASSISTANCE. At Customer's request, Farwest may, in its sole discretion, furnish technical assistance and information with respect to Farwest's Products. FARWEST MAKES NO WARRANTIES OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, WITH RESPECT TO TECHNICAL ASSISTANCE OR INFORMATION PROVIDED BY FARWEST OR ITS PERSONNEL, ANY SUGGESTIONS BY FARWEST REGARDING USE, SELECTION, APPLICATION OR SUITABILITY OF PRODUCTS SHALL NOT BE CONSTRUED AS AN EXPRESS WARRANTY UNLESS SPECIFICALLY DESIGNATED AS SUCH, IN WRITING, AND SIGNED BY AN AUTHORIZED REPRESENTATIVE OF FARWEST.

8. HAZARDOUS MATERIALS. Farwest is not responsible for the discovery of any hazardous materials at the site where services are to be performed. In the event that Farwest discovers hazardous materials, Farwest will promptly notify Customer. Farwest is not obligated to commence or continue work until all hazardous materials discovered at the place of performance has been removed, remediated, or determined to be harmless. If Farwest incurs additional costs or is delayed due to the presence or remediation of hazardous materials, Farwest is entitled to an equitable adjustment in both the Agreement's price and the time for performance. In no event shall Farwest be liable to Customer or any third-party for any hazardous materials existing at the place of performance or brought onto said premises by any third-party. Hazardous materials includes any substance or material identified currently or in the future as hazardous under applicable laws, or any other





FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
Products • Engineering • Installation

substance or material that may be considered hazardous or otherwise subject to statutory or regulatory requirement governing handling, disposal or cleanup.

9. RELEASE OF LIABILITY FOR BURIED PIPELINES. If necessary for the performance of Services, Farwest will contact the appropriate jurisdictional authority to identify and locate any buried public utilities at least 72 hours prior to commencing work on site. Farwest will also attempt to locate any buried metallic piping prior to commencing work on the site. Customer will provide Farwest with accurate, dimensioned, reliable site piping and utility plans ("as-built site drawings") which depict, at a minimum, the precise location of all underground storage tanks and all below ground fuel, vent air, water, or natural gas piping and electrical/instrumentation conduits (collectively "below-ground hazards") at least 3 days in advance of the date Farwest is to commence work at the site. If Customer fails to provide as-built site drawings, or if any as-built site drawings provided by Customer are inaccurate or fail to identify the location of all below-ground hazards, Customer agrees that Farwest will not be liable to Customer for any damages, liabilities or claims arising from damage to any below-ground hazard or a release of petroleum products or other hazardous material, in the course of Farwest's performance of the Services, including any such damages caused by the negligence of Farwest or its employees. In addition, CUSTOMER will indemnify and hold Farwest harmless from any such damages, liabilities or claims made by third parties, including governmental agencies.

10. INDEMNIFICATION. TO THE FULLEST EXTENT PERMITTED BY LAW, CUSTOMER AGREES TO DEFEND, INDEMNIFY, AND HOLD HARMLESS FARWEST AND ITS DIRECTORS, OFFICERS, EMPLOYEES AND AGENTS FROM AND AGAINST ANY AND ALL LIABILITY, LOSSES, COSTS (INCLUDING COSTS OF LITIGATION OR OTHER DISPUTE RESOLUTION AND ATTORNEYS' FEES), CLAIMS AND CAUSES OF ACTION IN FAVOR OF ANY AND ALL PERSONS ARISING OUT OF, RESULTING FROM, OR IN ANY WAY ATTRIBUTABLE TO THE NEGLIGENT ACT OR ACTION, OMISSION OR FAILURE TO ACT ON THE PART OF CUSTOMER OR ITS DIRECTORS, OFFICERS, EMPLOYEES, SUBCUSTOMERS, AGENTS OR ANY OTHER PARTY FOR WHOSE ACTS OR OMISSIONS ANY OF THEM MAY BE LIABLE. TO THE FULLEST EXTENT PERMITTED BY LAW, CUSTOMER FURTHER AGREES THAT WHERE OTHER CONSULTANTS OR CUSTOMERS ARE EMPLOYED IN THE WORK, CUSTOMER WILL NOT HOLD FARWEST RESPONSIBLE FOR ANY LOSS, DAMAGE OR INJURY CAUSED BY ANY FAULT OR NEGLIGENCE OF SUCH OTHER CONSULTANTS OR CUSTOMERS FOR RECOVERY FROM THEM, OR ANY OF THEM, FOR ANY SUCH DAMAGE OR INJURY.

11. CONFIDENTIALITY. All information, including quotations, specifications, drawings, prints, schematics, and any other engineering, technical or pricing data or information, submitted by Farwest to Customer, related to any order for Products are the confidential and proprietary information of Farwest. Customer and its employees, agents or other parties for whom Customer is responsible, may not disclose Farwest's confidential and proprietary information to any third-parties, or use Farwest's confidential and proprietary information for its own account or that of any third-party, except in the performance of this Agreement.





FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
Products • Engineering • Installation

12. FORCE MAJEURE. If Farwest is delayed, at any time, by the acts or omissions of Customer, Changes Orders, or any Force Majeure, then the period of performance shall be extended, the delivery of Products rescheduled and the price equitably adjusted to reflect the effects of delay on Farwest's costs. "Force Majeure" means circumstances beyond Farwest's reasonable control, including acts of God, acts of public enemies, wars, other hostilities, blockades, insurrections, riots, epidemics, quarantine restrictions, flood, unavailability of components or supplies, lightning, fire, storms earthquakes, arrests, civil disturbances, acts of any governmental or local authority, and any other acts and causes, not within Farwest's control, which by the exercise of due diligence and reasonable commercial effort, Farwest shall not have been able to foresee, avoid or overcome. If Farwest is unable for any reason to supply the total demands for Products specified in the Agreement, Farwest may allocate its viable supply among any or all purchasers on such basis as Farwest deems fair and practical, without liability for any failure of performance which may result therefrom.

13. LIMITED REMEDY. FARWEST may, at FARWEST's sole option, replace any Product that does not conform to the Warranty stated in Section 3 above. If a Product is to be returned for replacement, Customer must obtain FARWEST's Return Authorization and specific return or pickup instructions prior to returning items. The Warranty stated in Section 3 above shall be void in the event the Product: (i) fails, is contaminated, adulterated or altered, degraded or is damaged, as a result of improper handling or modification; (ii) is accidentally contaminated, damaged, adulterated or altered, or subjected to abuse or improper use; or (iii) is otherwise adulterated, altered, degraded or damaged such that FARWEST is unable to verify such claims or defects.

14. LIMITATION OF LIABILITY. THE ENTIRE LIABILITY OF FARWEST AND CUSTOMER'S EXCLUSIVE REMEDIES FOR ANY DAMAGES CAUSED BY ANY PRODUCT DEFECT OR FAILURE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT OR OTHERWISE, INCLUDING WITHOUT LIMITATION NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL BE: (i) FOR INFRINGEMENT, THE REMEDIES STATED IN SECTION 6; (ii) FOR DAMAGES TO REAL OR TANGIBLE PERSONAL PROPERTY; OR (iii) FOR WHICH FARWEST'S SOLE NEGLIGENCE WAS ALLEGED TO THE PROXIMATE CAUSE; FOR CLAIMS OTHER THAN THOSE SET FORTH ABOVE, FARWEST'S LIABILITY SHALL BE LIMITED TO AN AMOUNT NOT TO EXCEED THE PURCHASE PRICE OF THE PRODUCTS. FARWEST SHALL NOT BE LIABLE IN ANY EVENT FOR THE FOLLOWING TYPES OF DAMAGES: INCIDENTAL DAMAGES, PUNITIVE DAMAGES, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOST SAVINGS OR LOST REVENUES OF ANY KIND WHETHER OR NOT FARWEST HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THIS PARAGRAPH SHALL SURVIVE THE FAILURE OF ANY EXCLUSIVE REMEDY. NO ACTION, REGARDLESS OF FORM, ARISING OUT OF, OR IN ANY WAY CONNECTED WITH, THE PRODUCTS FURNISHED OR SERVICES RENDERED BY FARWEST, MAY BE BROUGHT BY CUSTOMER MORE THAN ONE YEAR AFTER THE CAUSE OF ACTION HAS ACCRUED.





15. INTEGRATION AND ASSIGNMENT. These Terms and Conditions constitute the sole and entire agreement between the parties with regard to the subject matter hereof and supersede any and all prior or contemporaneous oral or written agreements between them regarding the same. No course of prior dealings between the parties and no usage of the trade shall operate to or be relevant to supplement or explain any term used in these Terms and Conditions. No subsequent alteration of these Terms and Conditions whatsoever shall be binding upon FARWEST unless reduced to writing and signed by both FARWEST and Customer. No agent, employee or representative of FARWEST has any authority to bind FARWEST to any affirmation, representation or warranty covering the Products sold by FARWEST to Customer, and unless an affirmation, representation or warranty made by an agent, employee or representative is specifically included within these Terms and Conditions or within a written document signed by authorized officers of FARWEST and Customer, it is not deemed a part of these Terms and Conditions and shall not in any way be enforceable against FARWEST. Any assignment of these Terms and Conditions or any rights hereunder by Customer shall be void without FARWEST's written consent.

16. GOVERNING LAW AND INTERPRETATION. The agreement and performance by the Parties arising from or related to the Products provided by Farwest shall be construed in accordance with the laws (excluding the laws relating to conflicts) of the State of California. Venue and jurisdiction in any action shall lie solely in Los Angeles County, California. In the event of the arbitration or litigation of any dispute between Customer and Farwest, the prevailing party shall be entitled to recover reasonable attorney fees and costs.

17. LITIGATION AND COLLECTION. Any controversy or claim arising out of or relating to this sale shall be mediated by a mutually agreed upon mediator in Los Angeles County, California. The cost of the mediation shall be shared equally. In the event the dispute is not resolved through mediation, any litigation shall be brought in Los Angeles County, California, which courts shall have the exclusive jurisdiction over any such litigation. Customer and Farwest hereby expressly consent to the jurisdiction and venue of said courts. If any default is made in payment of amounts due for the sale of goods and materials hereunder or upon any other breach of the terms and conditions set forth herein, Customer agrees to pay Farwest's reasonable cost of collection and/or compliance, including reasonable attorneys' fees and costs, not to exceed an amount allowed by law.

18. ARBITRATION OF DISPUTES ARISING UNDER THIS AGREEMENT. In the event of any dispute arising out of or relating to any agreements or to these Terms and Conditions, the parties' exclusive remedy shall be binding arbitration. All such arbitration proceedings pursuant to this section shall be held in Los Angeles County, California, with Judicate West, in accordance with Judicate West's expedited procedures then in effect. The decision of the arbitrator shall be final and binding. In making the decision the arbitrator need not follow any particular rules of evidence or procedure, but shall in good faith follow as nearly as practicable the rules of Judicate West relating to the arbitration of commercial disputes. Except as provided herein, any cost of arbitration shall be borne equally by each party, with the prevailing party being entitled to recover such costs, including reasonable attorneys' fees. The arbitrator's decision shall be specifically enforceable in any court of competent jurisdiction. Notwithstanding any contrary provision in this section, the parties may apply to any court of competent jurisdiction for interim for provisional relief pending the arbitrator's decision.





The Loftis Company – PO Box 7847 Midland TX 79708 – 210-872-0608

EXHIBIT E

January 30, 2024

South Texas Water Authority
Hector Barbosa

Hector:-

We appreciate the opportunity to provide our quotation for (4) deepwell groundbeds located between Bishop and Robstown in Nueces County Texas. We will furnish materials, equipment, and labor to install each system per STWA specifications.



- 10" x 320' hole
- 1" Allvent / 1" PVC vent system
- (15) 4x80 graphite anodes with #8 (eight) HMWPE lead wires
- (1) j-box per specifications
- Carbo 60 backfill – sufficient quantity for 180' coke column
- Hole plug / pea gravel
- Approx 200' of #2 cable
- (1)30V60A Universal Rectifier per specifications
- Power pole with meter loop per specifications
- RRC Useable Water Drill Permit
- Earth circulating pit
- Miscellaneous hardware

Cost per Groundbed - \$38,983.00

7 1,200
320
1,400

50,000
4,000,500

Additional Items to be added to base price only if used:

- Portable pit - \$1,500 per hole (Note: If a portable pit is required, a vacuum truck will be used for safety purposes)
- Vacuum truck / hydrovac services – cost plus 15%

Prices do not include applicable taxes.

Please let me know if you have any questions.
Thank you,

Margaret Loftis
210-872-0608 cell
mloftis@loftiscompany.com
Visit Our Website: <http://www.loftiscompany.com>



The Loftis Company
~ Catholic Protection Since 1952 ~

STWA DEEP WELL IN HOUSE PROPOSAL

STWA Work responsibilities

- Make one call for designated location 3 days before work begins.
- Install power pole according to county specs.
- Drill 10 inch by 320 feet bore hole.
- After TD log hole
- Load hole with anodes at 10 ft centers
- Pump coke breeze
- Next day fill up to 85 ft with pea gravel
- 40 ft of bentonite hole plug
- 15 ft of native soil

STWA PROCEDURE FOR INSTALLATION

STWA shall drill a 10" x 320' deep hole after TD STWA shall log hole at 10 ft intervals with 12 volts of current, record and review electrical log if needed will have the option to move the anode according to log. STWA will load hole with anodes, pump a total of 4000 lbs. of coke breeze in a slurry form.

Day after loading hole STWA will measure depth of coke breeze. Coke breeze shall be 140 ft from top of hole. STWA will be assured the 180 ft column is complete.

When 180 ft column is complete STWA will fill with 85 ft of pea gravel then 40 ft of bentonite hole plug the rest 15ft of native soils.

STWA will be responsible for vacuum trucks to dispose of non-hazardous drilling mud and cuttings.

STWA shall tie in anodes to J box and # 2 wire to positive rectifier lug.

STWA shall install and bond to Negative structure and negative rectifier lug.

STWA will install 30 Volt 60 Amp Universal Rectifier and terminate wire to breaker box.

STWA will complete and submit TCEQ GW-1s

STWA Cost to Install deep well ground beds

Rectifier #1 on CO RD 4 near Bishop Texas is \$ 26, 706 02.

At this location we will not need a meter loop set up will utilize existing power pole.

Rectifier # 2 on CO RD 16 near Driscoll Texas is \$ 29,051.02

This location will need for NEC to bring power lines to our site and install meter loop and meter.

Rectifier # 3 on CO RD 28 near Robstown Texas is \$27,586.02

This location has power nearby and will need a meter loop and meter.

Rectifier #4 on CO RD 36 in Robstown Texas is \$ 27,586.02

This location is near power lines and also just need a power pole and meter. This site is owned by STWA

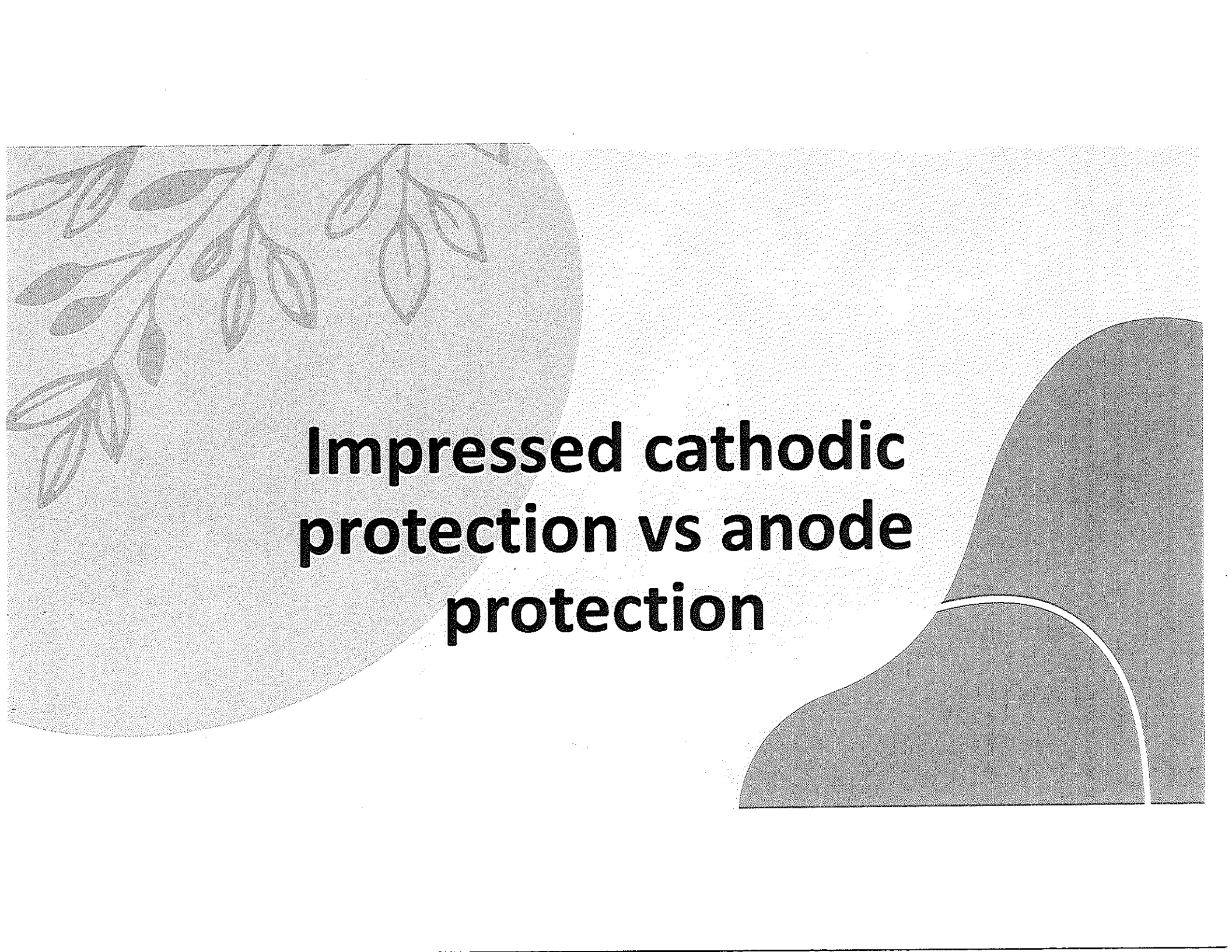
A 100 ft by 100 ft will need to be provided for temporary work space

Rectifier # 1	STWA IN HOUSE INSTALL	CR #4 BISHOP TX		
Drilling cost	10" X 320'	\$20.00	320	\$6,400.00
Anodes	15 4" x 80" Graphite with #8 HMWPE	\$7,000.00	1	\$7,000.00
Coke breeze	Carbo 60 coke breeze 50# bags	\$17.50	80	\$1,400.00
Bentonite plug	50 # bags	\$7.75	20	\$155.00
All vent pipe	180 ft	\$2.95	180	\$531.00
Reg pvc pipe	150 ft	\$0.66	170	\$112.20
Junction Box		\$500.00	1	\$500.00
HMWPE WIRE	150 ft	\$3.20	150	\$480.00
Universal Rect	30 Volt 60 Amp Rectifier	\$4,500.00	1	\$4,500.00
Disposal of mud	hole cuttings waste disposal	\$1,200.00	1	\$1,200.00
STWA LABOR	CP truck and tools	\$400.00	5	\$2,000.00
CONTINGENCY	10%	\$2,427.82	1	\$2,427.82
				\$26,706.02

Rectifier # 2	STWA IN HOUSE INSTALL	4519 CR 16 NUECES CO		
Drilling cost	10" X 320'	20.00	320	\$6,400.00
Anodes	15 4" x 80" Graphite with #8 HMWPE	7000.00	1	\$7,000.00
Coke breeze	Carbo 60 coke breeze 50# bags	\$17.50	80	\$1,400.00
Bentonite plug	50 # bags	\$7.75	20	\$155.00
All vent pipe	180 ft	\$2.95	180	\$531.00
Reg pvc pipe	150 ft	\$0.66	170	\$112.20
Junction Box		\$500.00	1	\$500.00
HMWPE WIRE	150 ft	\$3.20	150	\$480.00
Universal Rect	30 Volt 60 Amp Rectifier	\$4,500.00	1	\$4,500.00
Disposal of mud	hole cuttings waste disposal	\$1,200.00	1	\$1,200.00
Power Pole	Meter loop and pole	\$450.00	1	\$450.00
Nec	Electric hook up	\$1,500.00	1	\$1,500.00
STWA	CP Tech and tools	\$400.00	5	\$2,000.00
Contingency	10%	2822.82	1	\$2,822.82
				\$29,051.02

RECTIFIER #3	STWA IN HOUSE INSTALL	4522 CR 28 NUECES CO		
Drilling cost	10" X 320'	20.00	320	\$6,400.00
Anodes	15 4" x 80" Graphlte with #8 HMWPE	7000.00	1	\$7,000.00
Coke breeze	Carbo 60 coke breeze 50# bags	\$17.50	80	\$1,400.00
Bentonite plug	50 # bags	\$7.75	20	\$155.00
All vent pipe	180 ft	\$2.95	180	\$531.00
Reg pvc pipe	150 ft	\$0.66	170	\$112.20
Junction Box		\$500.00	1	\$500.00
HMWPE WIRE	150 ft	\$3.20	150	\$480.00
Universal Rect	30 Volt 60 Amp Rectifier	\$4,500.00	1	\$4,500.00
Disposal of mud	hole cuttings waste disposal	\$1,200.00	1	\$1,200.00
Power Pole	Meter loop and pole	\$450.00	1	\$450.00
Nec inspector	Electric hook up	\$350.00	1	\$350.00
STWA Labor	CP truck and tools	\$400.00	5	\$2,000.00
Contingency	10%	\$2,507.82	1	\$2,507.82
				\$27,586.02

RECTIFIER # 4	STWA IN HOUSE INSTALL	4522 CR 36 ROBSTOWN TX		
Drilling cost	10" X 320'	20.00	320	\$6,400.00
Anodes	15 4" x 80" Graphite with #8 HMWPE	7000.00	1	\$7,000.00
Coke breeze	Carbo 60 coke breeze 50# bags	\$17.50	80	\$1,400.00
Bentonite plug	50 # bags	\$7.75	20	\$155.00
All vent pipe	180 ft	\$2.95	180	\$531.00
Reg pvc pipe	150 ft	\$0.66	170	\$112.20
Junction Box		\$500.00	1	\$500.00
HMWPE WIRE	150 ft	\$3.20	150	\$480.00
Universal Rect	30 Volt 60 Amp Rectifier	\$4,500.00	1	\$4,500.00
Disposal of mud	hole cuttings waste disposal	\$1,200.00	1	\$1,200.00
Power Pole	Meter loop and pole	\$450.00	1	\$450.00
Nec Inspector	Stake out man	\$350.00	1	\$350.00
STWA Labor		\$400.00	5	\$2,000.00
Contingecy	10%	2507.82	1	\$2,507.82
				\$27,586.02



Impressed cathodic protection vs anode protection

STWA PRESENT CATHODIC PROTECTION SACRIFIAL ANODES

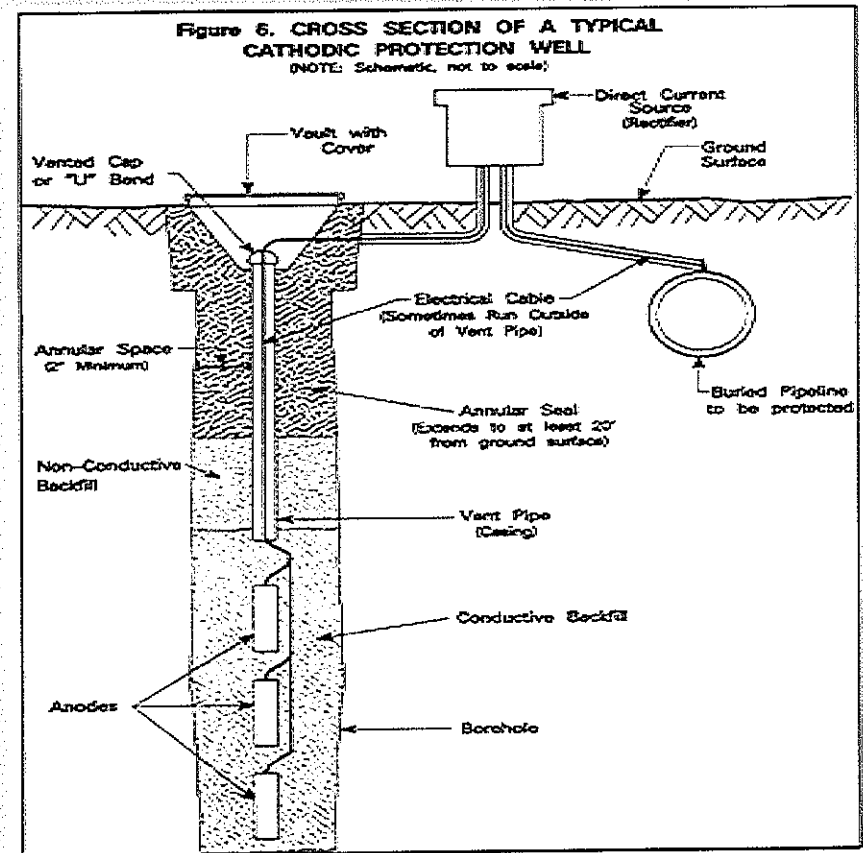
PRESENTLY STWA IS USING ANODIC PROTECTION

Why ICCP cathodic protection is better than SACRIFICIAL Anode protection?

Oxidation in the electrochemical cell is concentrated on the anodes leaving the structure protected as a cathode with a net reduction reaction. Properly designed **IMMPRESSED cathodic protection systems** can **reduce the corrosion rate to negligible amounts**

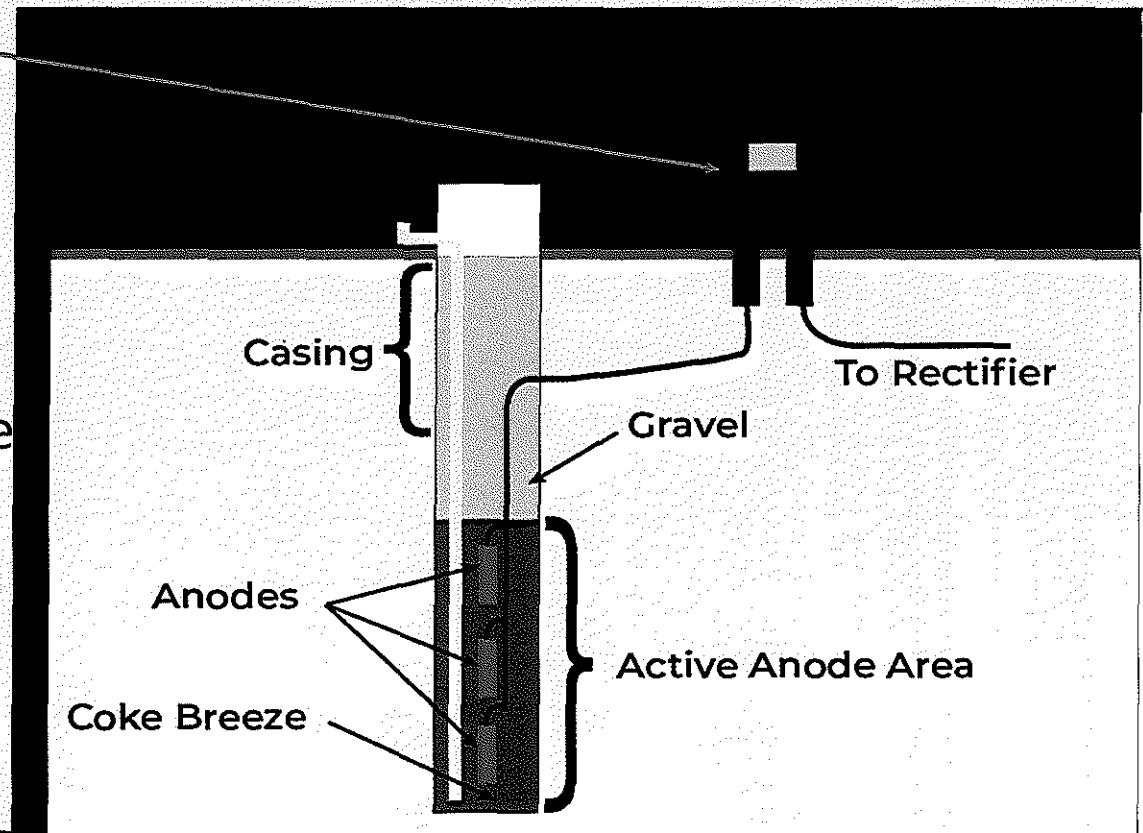
IMPRESSED CURRENT DEEP WELL

It is recommended that an an UPGRADE FROM A SACRIFICIAL ANODE SYSTEM TO AN IMPRESSED CURRENT SYSTEM THE IMPRESSED CURRENT REQUIRES VERY LOW MAINTENANCE and IS MORE COST EFFECTIVE AND WILL PROTECT THE ENTIRE TRANSMISSION LINE FROM CORROSION AND FUTURE LEAKS



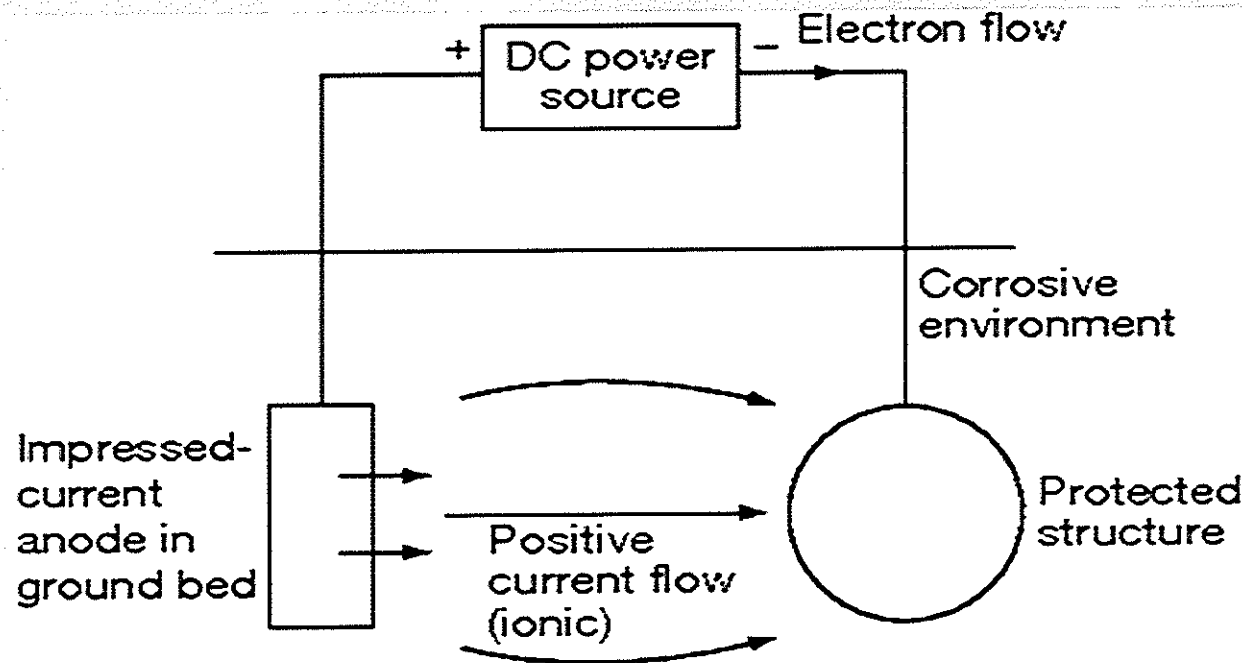
IMPRESSED CURRENT

RECTIFIER

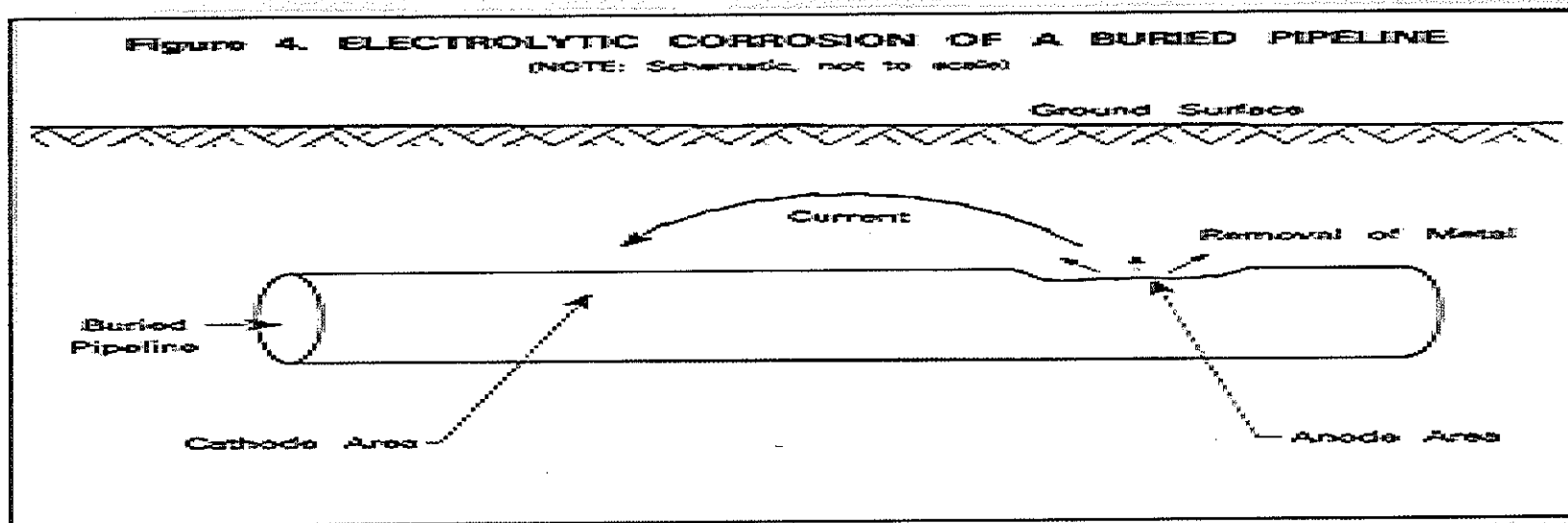


Impressed current cathodic protection systems consist of anodes that are connected to a power source that provides a perpetual source of electrical flow. The sacrificial anode method of protection uses a metal more active than the base metal to “sacrifice” ions.

IMPRESSED CURRENT CATHODIC PROTECTION RECTIFIER AND DEEP WELL SYSTEM



ACTIVE CORROSION occurs when a section of unprotected line seeks protection from a more negative section



The background features a light gray, textured surface. On the left, there is a faint, stylized leaf or branch pattern. Large, dark gray, organic shapes with white outlines are positioned on the left and right sides, framing the central text.

thank you

HECTOR BARBOSA

CP TECH

**IMPRESSED
CURRENT
CATHODIC
PROTECTION**

STWA



Cost to install ICCP

2

In House Cost to install impressed current
VS Contract corrosion companies
installation

**SOUTH TEXAS
WATER AUTHORITY**



Houston Branch
2000 A Hallister St. Houston, TX 77043
713.460.0001 www.Aegion.com

PRICING SUMMARY

Corpro will provide the above items for the below pricing.

PRICING TABLE	
ITEM	TOTAL
Cathodic Protection Design	\$12,765
Cathodic Protection Materials	\$20,295
Cathodic Protection Installation	\$24,820
Commissioning and Report	\$5,620
Fuel Surcharge	2%
Estimated Total:	\$67,510

Pricing does not include applicable taxes which will be added to progress invoices.

SERVICES TO BE PROVIDED BY OTHERS

- Supply and installation of the following:
 - AC Service to Rectifier
 - Concrete work, if applicable
- The right of ingress, egress, and access to all properties necessary for completion of the work.
- Asphalt, additional gravel, grade, and/or crop damage or replacement, etc. if required.
- Matting, hydro-excavations, and spoil disposal if required.

QUALIFIERS

- Taxes, if applicable, are not included and will be added to progress invoices. Please supply a tax exemption and/or direct pay certificate if applicable.
- Pricing includes up to 2 revision cycles for design/material submittal revisions. Additional revisions will be an additional fee.
- Corpro is not responsible for locating and repairing any utility lines not affiliated with the One Call system, and therefore considered unlocatable, nor are responsible for any damage that may occur. This would include such items as irrigation systems, sewer service lines, water service lines, satellite lines, private electric lines, private gas lines, pool line, underground security fences, etc.
- Production rates for schedule are based on 60' ROP per hour. If Corpro encounters any adverse drilling conditions less than 30' ROP per hour, hard rock, and/or loss circulation, then labor and materials will be charged per the MSA # referenced above or 2022 Corpro Standard Rate Sheet and materials will be supplied at cost plus 15%.
- Corpro will run logging amode and determine if additional crew-work runs are required at our sole discretion.
- Corpro's pricing does not include asbestos removal or disposal services, traffic control, matting, vacuum truck services, etc. Should Corpro be requested to provide these services via a fully executed Change Order, Corpro shall provide such services via subcontractor at cost plus 15%.
- Corpro shall not execute any work not outlined in this quote without a fully executed Change Order.

STWA Cost to install deep well ground beds

Rectifier #1 on CO RD 4 near Bishop Texas is \$ 26,706.02.

At this location we will not need a meter loop set up will utilize existing power pole.

Rectifier # 2 on CO RD 16 near Driscoll Texas is \$ 29,051.02

This location will need for NEC to bring power lines to our site and install meter loop and meter.

Rectifier # 3 on CO RD 28 near Robstown Texas is \$27,586.02

This location has power nearby and will need a meter loop and meter.

Rectifier #4 on CO RD 36 in Robstown Texas is \$ 27,586.02

This location is near power lines and also just need a power pole and meter. This site is owned by STWA

A 100 ft by 100 ft will need to be provided for temporary work space



FARWEST CORROSION CONTROL COMPANY

Complete Cathodic Protection & Corrosion Control Solutions
Products • Engineering • Installation

Section 4 - Pricing

Deepwell Groundbed Installation - STWA 100' Installation	Pricing
Materials for 10' x 320' Deepwell Groundbed (1) Locations	\$120,560.00
Installation Pricing for 10' x 320' Deepwell Groundbed (1) Locations	\$179,900.00
Total	\$299,460.00

MATERIALS LIST

DESCRIPTION	QUANTITY	UNIT	PRICE
1. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
2. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
3. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
4. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
5. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
6. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
7. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
8. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
9. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
10. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
11. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
12. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
13. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
14. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
15. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
16. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
17. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
18. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
19. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
20. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
21. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
22. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
23. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
24. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
25. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
26. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
27. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
28. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00
29. 10' x 320' DEEPWELL GROUND BED	1	EA	120,560.00
30. 10' x 320' DEEPWELL GROUND BED	1	EA	179,900.00

* Farwest pricing for Deepwell Groundbed Materials is based on the items listed above. Any additional materials needed to complete the project will come at additional costs*

- Section 5 - Construction Notes**
- Accumulate the lump sum price based on provided documents, any changes in construction plans and CP system details may result in changes to this pricing.
 - Farwest to provide 100% of 10' x 320' per customer request. Farwest to ensure that to have an 100' x 320' area on site, there will need to be a minimum of 7,200 sq ft.
 - If GW 2 Groundwater Determination better indicates that need for additional ground water protection, a final permit may be required. Provision would then have to be made for agreed upon prior to moving forward on the project.
 - Also, additional materials may be required if a GW-1 is required. The additional materials will be charged at cost plus 15%.
 - Pricing based on an estimate of 150' of trenching for the total project. If additional trenching is needed it will come at additional costs.
 - Commissioning/Post Installation Testing not included in the above pricing.
 - Although not included, an additional cost at a rate of \$750.00 per hour would apply if a large quantity of groundwater is encountered (i.e. a median well) when a deep well ground bed is installed.

14025 Interstate East, Houston, TX 77032
281.446.9558 | info@farwestcp.com | FarwestCorrosion.com



The Loftis Company - PO Box 7847 Midland TX 79708 - 210-872-0606

January 30, 2024

South Texas Water Authority
Hector Barbosa

Hector

We appreciate the opportunity to provide our quotation for (4) deepwell groundbeds located between Hishop and Kobstown in Nueces County Texas. We will furnish materials, equipment, and labor to install each system per STWA specifications.

- 10' x 320' hole
- 1" Above/1 1/2" PVC vent system
- (1) 480' graphite anodes with #8 (light) HMMPE lead wires
- (1) 100' per specifications
- Carbo 60 backfill - sufficient quantity for 180' case column
- Hole plus / pea gravel
- Approx 200' of #2 cable
- (1) 30' 604 Universal Headfire per specifications
- Power pole with meter loop per specifications
- RPC Usable Water Drill Permit
- Earth circulating pit
- Miscellaneous hardware

Cost per Groundbed - \$38,983.00

Additional items to be added to base price only if used:

- Portable pit - \$2,500 per hole (Note if a portable pit is required, a column truck will be used for safety purposes)
- Vacuum truck / hydrovac services - cost plus 15%

Prices do not include applicable taxes.

Please let me know if you have any questions. Thank you,

David J. Loftis

Manager, Loans
210-872-0608 ext.
dloftis@slsloftis.com
www.loftis.com

The Loftis Company
- Cathodic Protection Since 1952 -



**FIRST
CORROSION
SOLUTIONS, LLC**

Quote

November 23, 2022

Quote 222322.SFWA.00.GB

Oscar Ortega
Pipeline Technician
South Texas Water Authority
Kingsville, Texas
(361) 219-0869
oortega@stwa.org

quote by 8/23/22

Scope of Work

Cathodic Protection Deep Well Ground Bed Installations – Kingsville, Texas

First Corrosion Solutions, a subsidiary of First Instrument Solutions is pleased to provide you with this quotation.

Please find our price quote below to install a cathodic protection deep well for South Texas Water Authority by Hwy 77 near Kingsville, Texas.

Description	Location	Type	Price each
Cathodic Protection Deep Well Ground Bed, 200 feet	Kingsville, Texas area	New ground bed	\$ 62,000.00*
*plus, applicable sales tax			

Our pricing assumes that we will have ready access to the job site locations and that South Texas Water Authority will furnish all general and hot work permits, if necessary, to complete the project.

Pricing subject to changed based on items listed below or not covered in the original job scope.

1. Any company-specific education and safety training courses or certifications required may be billed at cost plus 15%. Site-specific orientation is excluded from additional billing.
2. The drilling costs for the ground bed may vary based on TRRC GW-1/GW-2 Reports. If environmental or non-environmental casing is required by TRRC, there will be an additional charge for material, labor and equipment based on casing depth. Additional permitting may be required by TRRC.
3. Specialty equipment other than required under the scope of this project will be charged at T&M rates.
4. All change of work orders will be in writing and approved by South Texas Water Authority personnel and First Corrosion Solutions personnel and may be subject to additional charges.
5. Delays due to conditions at job site locations not under the control of First Corrosion Solutions may be subject to additional charges.

First Instruments Solutions, LTD. 5853 Leopard Street Corpus Christi, TX 78408 (361)887-9001



361-232-2010

11/23/22

SWTA
2302 East Sage Road
Kingsville, TX 77536
Attn: Mr. Ortega
Via email: Oortega@stwa.org

Proposal 22-00856
Reference: Rectifier Anode Bed installation

Dear Mac,

Alpha Pipeline Integrity Services is pleased to submit the following proposal for your consideration. Our scope of work will include install of anode beds and rectifier along qualified Project supervisor NACE 1 and 2 technicians.

Alpha is pleased to present our proposal to provide labor, supervision, equipment, transportation, subsistence, and travel report needed to provide the below recommendations technicians per above referenced specs.

Total project for all items: \$90,000

The work will last approximately one eight-hr. day dependent upon plant access. Our terms for payment are Net 30 for each invoice. The cost to perform the work listed above is \$90,000 We appreciate your interest in Alpha Pipeline Integrity Services and look forward to performing this project.

If you have any questions concerning information or specifications in this proposal, please do not hesitate to contact me.

Best Regards,

Kevin Canizaro
Kevin Canizaro *William Pelacios*
Regional Sales Manager
~~(832) 999-2818~~ 281-352-2010
k.canizaro@alpha-int.com

304 Mission Lane
Kensh, TX 77585

www.alpha-int.com

C/fax (832) 224-6945
Fm (832) 224-7002

STWA Cost to install deep well ground beds

Rectifier #1 on CO RD 4 near Bishop Texas is \$ 26,706.02.

At this location we will not need a meter loop set up will utilize existing power pole.

Rectifier # 2 on CO RD 16 near Driscoll Texas is \$ 29,051.02

This location will need for NEC to bring power lines to our site and install meter loop and meter.

Rectifier # 3 on CO RD 28 near Robstown Texas is \$27,586.02

This location has power nearby and will need a meter loop and meter.

Rectifier #4 on CO RD 36 in Robstown Texas is \$ 27,586.02

This location is near power lines and also just need a power pole and meter. This site is owned by STWA

A 100 ft by 100 ft will need to be provided for temporary work space

SUMMARY

AS YOU CAN SEE THE CAMPARISON OF CONTRACT COMPANIES
INSTALLS VS STWA MATERIAL SELECTION POWER INSTALL AND
TCEQ PERMITS COMPLETED BY STWA IS LESS THAN \$100,000. 00
VS LOWEST BID OF \$200,000.00

HECTOR BARBOSA CORROSION TECHNOLIGST NACE # 7020

ATTACHMENT 5

Alternative Water Sources

Memo

To: South Texas Water Authority Board of Directors
From: John Marez, Exec Dir/Admin
Date: February 22, 2024
Topic: Potential Alternate Water Sources

Background:

At our meeting on January 15, 2024, the board instructed staff to furnish updates regarding our existing water supply and prospective water sources. Subsequently, our management team, in collaboration with ICE Engineers and the Water Finance Exchange, convened to evaluate the feasibility of available sources in our region. Several of these sources encounter challenges related to project completion timelines or sufficient access to the resources of water availability and price. While the list presented does not encompass all potential sources, we remain committed to assessing the overall cost-benefit each suggestion could offer to our water system and customers.

Analysis:

Surface Water from the City of Corpus Christi (CCW): This current option draws water from a combined reservoir system, which, unfortunately, is prone to drought. The City of Corpus Christi is exploring additional water sources to meet the needs of the STWA and regional wholesale customers. The potential for increased water rates per 1,000 gallons is likely.

Groundwater Source within our region: This untapped groundwater source presents an opportunity, although requiring the creation of a transmission line at the supplier's expense to connect to STWA could add to the timeliness of the project. The cost per 1,000 gallons is expected to be relatively low, although the entire project has not yet undergone engineering vetting.

Water Purification: Desalination as an option is becoming a growing trend nationally and worldwide. This leaves STWA and its customers subject to market rates and contracted terms. The perception of this water source could be negative but relies heavily on the location of any by-product after refinement.

Water Reclamation: Utilizing the same volume of water already placed into a wastewater system or water that is recaptured during potable use is a growing trend in especially areas where water sources are limited on unfeasible to access financially. The stigma of using use water is a hurdle to overcome but reclamation is used in cities such as Phoenix and Las Vegas.

Other Emerging Water Options: Various water options are becoming available in our region and will continue to be assessed by our team as we seek other alternatives for your review.

Staff Recommendation:

Provide staff further guidance on which options to further explore.

Memo
2/22/24
Page 2 of 2

Board Action:

Determine whether to approve the enclosed revision of the STWA Water Conservation and Drought Contingency Plan and distribute it to STWA's Wholesale Customers.

Summarization:

Given the urgency of our pending water contract renewal with the City, we have a limited timeframe to determine whether a supplemental or primary water source to secure.

We welcome the Board's insights and direction on pursuing the best water options for STWA and its wholesale customers. Your input will be crucial as we move forward with this decision-making process.

ATTACHMENT 6

Declaration of Surplus Property

Memo

To: South Texas Water Authority, Board of Directors
From: John Marez, Exec Dir/Administrator
Date: February 22, 2024
Re: Declaration of Surplus Property

Background:

The last declaration of surplus materials was approved in October 2023. Our staff have been actively reviewing other surplus materials in an attempt to recover any material value to items on our property list in addition to declutter our area. Provided is the declaration of two vehicles, a LaserJet printer, LCD Monitor and a pallet full of Anodes, all no longer in use. Staff is requesting the Board consider for declaration as salvage property.

Analysis:

This is the first step taken in order for the board to authorize the auction of our surplus vehicles and other materials that have a monetary value. All other items will be discarded if there is not an open market demand.

Staff Recommendation:

Declare all items provided on separate list as surplus property and authorize staff to utilize an auction firm to sell on the Authority's behalf when appropriate.

Board Action:

Determine whether to declare this property as salvage/surplus property items.

Summary:

Staff believes the vehicles and anodes have a monetary value and are worth attempting to place for bid in the open market.

ATTACHMENT 7

Resolution 24-06

SOUTH TEXAS WATER AUTHORITY

Resolution 24-06

A RESOLUTION AUTHORIZING THE SALE OF SURPLUS PROPERTY OF THE SOUTH TEXAS WATER AUTHORITY.

WHEREAS, the following property has been replaced and is no longer in use nor suitable for use by the Authority:

Item #	QTY	Description
1	1	2012 Chevrolet 1500 Pickup Truck
2	1	2013 Ford F150 Pickup Truck
3	1	HP Color LaserJet Pro M454dw Printer
4	1	Acer Model S240HL LCD Monitor
5	300	17 lb magnesium sacrificial anodes with #12 wire

and

WHEREAS, the list of property has been reviewed by the Authority's Board of Directors.

NOW, THEREFORE, BE IT RESOLVED that the Authority declares the property as surplus property and authorizes sale of the property.

Duly adopted this 27th day of February, 2024.

JOSE M. GRAVELEY, PRESIDENT

ATTEST:

IMELDA GARZA, SECRETARY/TREASURER

ATTACHMENT 8

Water Conservation and Drought Contingency Plan

Memo

To: South Texas Water Authority Board of Directors
From: John Marez, Exec Dir/Admin
Date: February 22, 2024
Topic: Updated STWA Water Conservation and Drought Contingency Plan

Background:

The STWA is required to revise their Water Conservation and Drought Contingency Plan on a 5-year cycle to coincide with the revised City of Corpus Christi's Plan. Typically, those changes can or will occur in the event the City changes their monitoring and restriction levels. In April 2018 the STWA revised their WCP/DCP to match the city's revisions. The STWA now follows the City's 4 Stages of their Drought Contingency Plan which allows to better monitor the combined water system and help consumers understand what restrictions, if any, apply based on current water levels.

Additionally, this updated WCP/DCP allows for the STWA to complete its final requirement to apply for Texas Water Development Funds that are estimated to bring \$7.8 million in improvements to the entire water system (STWA/NWSC/RWSC).

Analysis:

STWA Water Conservation and Drought Contingency Plan incorporating the trigger levels as follows:

Stage 1 -Combined Reservoir Storage Level - Less than 40%

Stage 2- Combined Reservoir Storage Level- Less than 30%

Stage 3 -Combined Reservoir Storage Level- Less than 20%

Stage 4 -Combined Reservoir Storage Level- Emergency water shortage condition

Staff Recommendation:

Adopt the provided draft of the revised STWA Water Conservation and Drought Contingency Plan. Instruct staff to provide the Plan to STWA's Wholesale Customers.

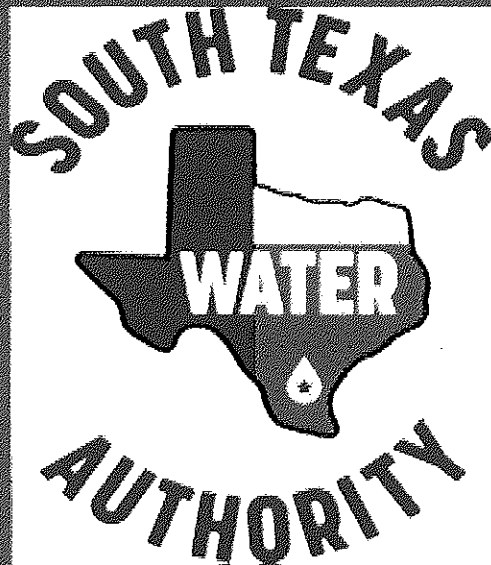
Board Action:

Determine whether to approve the enclosed revision of the STWA Water Conservation and Drought Contingency Plan and distribute it to STWA's Wholesale Customers.

Summarization:

The State mandates that an entity review its plan in five-year cycles. This revision will take effect immediately for our water customers and will remain valid until February 2028. In the event of changes to our water wholesale provider and/or water contract, a similar update will be presented for the board's approval.

2024 SOUTH TEXAS WATER AUTHORITY WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN



Prepared by E.I.T. Sergio Luna & Reviewed by P.E. Jesus Jimenez
INTERNATIONAL CONSULTING ENGINEERS
261 Saratoga Boulevard Corpus Christi TX

Table of Contents

Part 1 Water Conservation Plan	3
Introduction	3
Service Area	3
Regional Water Supply Sources	4
Treatment Capacity	5
Leak Detection and Repair	5
Future Improvements to Leak Prevention and Detection.....	7
Water Master Plan	7
Cathodic Protection Upgrade.....	8
Annual Survey	9
Transmission Line Internal Inspection.....	10
Modeling of STWA Distribution System	12
Reservoir System Operation Plan.....	13
Five-year and Ten-year	13
Conservation Strategies	14
Water Supply Contract	14
Implementation	15
Coordination with the Regional Water Planning Group	15
Review And Update.....	15
Part II – Drought Contingency Plan	16
Section I: Declaration, Policy and Intent	16
Section II: Public Involvement.....	16
Section III: Wholesale Water Customers Education.....	16
Section IV: Coordination with Regional Water Planning Groups	17
Section V: Authorization	17
Section VI: Application	17
Section VII Triggering Criteria for Initiation and Termination of Drought Response Stages.....	17
(a) Stage 1 – Mild Water Shortage Conditions.....	18
(b) Stage 2 – Moderate Water Shortage Conditions	18
(c) Stage 3 – Critical Water Shortage Conditions	18
(d) Stage – Emergency Water Shortage Conditions	19

STWA Water Conservation and Drought Contingency Plan

Section VIII: Drought Response Stages 19

 Stage 1 – Mild Water Shortage Conditions 19

 Stage 2 – Moderate Water Shortage Conditions 20

 Stage 3 – Critical Water Shortage Conditions 21

 Stage 4 – Emergency Water Shortage 22

Section IX: Pro Rata Water Allocation 23

Section X: Enforcement 24

Section XI: Variances 26

Section XII: Severability 27

Part 1 Water Conservation Plan

Introduction

The South Texas Water Authority (STWA) provides treated water supplies to seven (7) wholesale customers. Its mission is to

- Provide a safe supply of water to communities, residents and entities in central Kleberg County and westers Nueces County
- Insure a dependable, abundant supply is available to our customers and,
- Utilize regional approach that minimizes adverse cost of service based on entity size

South Texas Water Authority does not provide wastewater service.

Service Area

The following information is the latest population data and water usage for the last five (5) Fiscal Years. South Texas Water Authority provides wholesale service – not retail service – to these customers

Entity	Population	5 Year Average (annual) FY 19'-23'	Peak Demand Month for FY 19'-23'	Monthly Peak Demand FY 19'-23'
<i>City of Agua Dulce</i>	628	27,002,316	July 2023	3,431,044
<i>City of Bishop</i>	3,174	61,122,000	July 2022	17,334,000
<i>City of Driscoll</i>	680	43,237,860	Dec 2020	9,094,300
<i>City of Kingsville</i>	25402	141,389,600	July 2022	28,743,000
<i>Nueces Water Supply Corporation</i>	3,276	163,280,273	December 2023	20,233,260
<i>Nueces County Water Control & Improvement District #5</i>	745	22,068,553	August 2019	2,619,900
<i>Ricardo Water Supply Corporation</i>	3,330	113,843,800	July 2022	14,484,000

Table 1. STWA wholesale customer's population and 5-year average water demands and monthly peaks

All customers are located within the Authority district with exception of Nueces County Water Control and Improvement District #5 (Banquete), which is served as an Out-of-District customer

The Authority facilities were designed and constructed to serve four original customers, Kingsville, Bishop, Driscoll and Agua Dulce with 100% of their water needs. At the time of construction in 1983, it was anticipated that these entities would initially require between 5 MGD and 7 MGD. The system was designed to meet a 50-year planning period; therefore, the delivery capacity of the system is 17 MGD.

South Texas Water Authority purchases treated water from the City of Corpus Christi. Supplies are transported approximately thirty (30) miles south from the O.N. Stevens Treatment Plant to the City of Kingsville via a 42" steel reinforced concrete cylinder water line. The City of Driscoll, the City of Bishop and a portion of the Nueces Water Supply Corporation customers are serviced along the route of the 42" transmission line. A smaller asbestos concrete spur line (14-inch and 12- inch) supplies customers in Agua Dulce, Banquete, and the remainder of the Nueces Water Supply Corporation's customers. Construction of the Regional Water System included pump station and storage facilities designed to provide a full day's supply during peak periods.

Direct water service to the Ricardo Water Supply Corporation is provided via a 12-inch transmission line. The Ricardo Water Supply Corporation owns the waterline which was funded by a combination of loan and grant funds through the US Department of Agriculture Rural Development Program.

In Fiscal Year 2023 (October 1, 2022 through September 30, 2023), the Authority purchased 596,417,102 gallons from the City of Corpus Christi. In the past 30+ years, however, the largest potential customer, Kingsville, has opted to continue using groundwater wells for the majority of its needs. Therefore, on average the Authority provides less than 2 MGD to its seven (7) customers. During extremely dry conditions, water demand has exceeded 3 MGD.

Regional Water Supply Sources

The Regional Provider's (the City of Corpus Christi) sources of water is from multiple river basins. The combined Lake Corpus Christi/Choke Canyon Reservoir System is fed from the Atascosa, Frio and Nueces Rivers. When full Lake Corpus Christi has the capacity to store 256,339 acre-feet of water (83.5 billion gallons) and, Choke Canyon Reservoir has a capacity to store 662,821 acre-feet (227 billion gallons). The 101-mile-long Mary Rhodes Pipeline transports water through a 64-inch pipeline from Lake Texana which is supplied by the Navidad and Lavaca Rivers. In 1993, the City of Corpus Christi entered into a contract with the Lavaca-Navidad River Authority to purchase 41,840 acre-feet (13.66 billion gallons) of water per year. The city is currently contracted to divert 31,440 acre-feet after the LNRA recalled 10,4000.

In addition to the aforementioned supplies, in 1999 the City of Corpus Christi acquired senior water rights to 35,000 acre-feet of water per year in the Lower Colorado River. Construction of the Mary Rhodes Phase II Pipeline to access what is usually referred to as the Garwood water is now complete.

In the past, the City of Corpus Christi has explored the feasibility of desalination. In 2003, the City of Corpus Christi was one of three sites awarded a \$500,000 state grant to conduct a study as part of Governor Rick Perry's initiative to assess the potential desalination of seawater to help meet the state's regional water needs. The City of Corpus Christi also participated in a U.S. Army Corps of Engineers feasibility study to assess the potential for desalination as a water supply source for the region. This study was jointly sponsored by the San Antonio Water System, San Antonio River Authority, and Guadalupe Blanco River Authority.

The city of Corpus Christi is currently working on activities for a procurement of a Seawater Desalination plant with a base design output of 20 MGD expandable to 30 MGD located on the Corpus Christi Inner

Harbor while simultaneously working on acquiring permits for a future plant in the La Quinta Channel area for the Coastal Bend Region

In 2005, the City of Corpus Christi also formed an Aquifer Storage and Recovery Conservation District (CCASRCD). This district was the result of legislation passed in the 79th Texas Legislature. The CCASRCD, according to the City's Water Conservation Plan, is "dedicated to protecting groundwater supplies within the district, developing and maintaining an aquifer storage and recovery program, providing the most efficient use of groundwater resources to supplement existing supplies, while controlling and preventing waste of groundwater." It is not certain, at this time, whether the City of Corpus Christi activities would be regional in nature.

This region continues its efforts in diversifying its resources. In July of 2017, the Texas Water Development Board announced that the City of Corpus Christi and the San Patricio Municipal Water District would receive a low interest loan in the amount of \$2.75 million from the State's SWIFT (State Water Implementation Fund for Texas) for a seawater desalination study described as follows:

A Consortium of industrial and municipal stakeholders has completed a feasibility study for the implementation of a seawater desalination plant in the Corpus Christi Bay Area. The intent of the Consortium is to conduct project definition and planning studies for implementing a full-scale seawater desalination project. This funding application is to address those preparation and definition activities which will include recommendation of a project implementation agency, a plant siting evaluation, infrastructure integration planning, source water characterization, economic impact and cost modeling, public outreach, analysis of concentrate management methods, evaluation of cost allocation strategies, evaluation and selection of a project procurement methodology.

Treatment Capacity

According to the City of Corpus Christi's 2020 Water Conservation Plan (WCP), the O.N. Stevens Water Treatment Plant has a rated capacity of 167 million gallons per day, well above the peak summer demand of 100 million gallons per day. Additionally the City 2020 WCP reports that the City treats approximately 23 billion gallons annually

Leak Detection and Repair

As mentioned in the previous section, all water is metered as it leaves the O.N. Stevens Plant and enters the Authority's Regional System. Water is metered again as it enters the ground storage tanks servicing the Authority's seven (7) wholesale customers. Meters are read on the first day of the month by field personnel, and meter readings and flow volumes are recorded daily via a Supervisory Control and Data Acquisition system (SCADA). A water loss report is calculated Monday through Friday by comparing recordings from the O.N. Stevens Plant against the cumulative of the Authority's wholesale customers. In

addition to the daily water loss report and daily metering, the Authority periodically drives out the route of the line. A major portion of the Authority's Regional System's waterlines are located in rural farmlands; therefore, leaks that are not detected by employees are reported by landowners or tenant farmers. For those areas that are not located in cultivated fields, the Authority clears its right-of-way using leased equipment.

Leaks have been located as part of the Authority's cathodic protection program, which involves excavating the 42" transmission line to install sacrificial zinc anodes every 100 lineal feet. Master meters are tested annually by a consultant company specializing in testing larger meters. For deviations from 100% in a range of plus or minus 2%, the meter is re-calibrated. Meters are tested prior to the annual test date in the event the meter is slowing down in registering. Ground storage and elevated tanks are inspected annually. Cathodic protection systems are installed in the Kingsville and Bishop ground storage tanks. Tanks are refurbished every five years, or as needed, by interior and exterior cleaning, spot painting, or if needed complete repainting of the tank.

Future Improvements to Leak Prevention and Detection

Water Master Plan

In April 2023 International Consulting Engineers was commissioned with drafting the South Texas Water Authority Water Master Plan. As part of the assessment of their facilities leak detection was addressed in the plan and is the top of the priority list and item that needs to be addressed first.

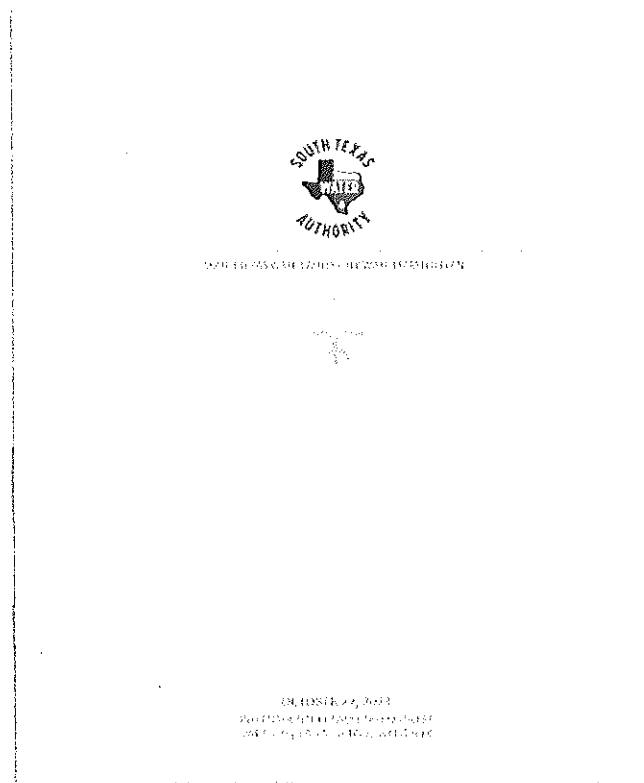


Figure 1, Cover page of South Texas Water Authority Water Master Plan

The Water Master Plan was submitted to the Texas Water Development Board in 2023 for funding and the application is currently being reviewed

The following are some of the items related to leak prevention and detection

Cathodic Protection Upgrade

As part of South Texas Water Authority Water Master Plan 2023, International Consulting Engineers recommended an upgrade to their current cathodic protection system that uses sacrificial anodes for an impress system that uses rectifiers. Currently there are sections that are unprotected due to aging of the system and the constant maintenance a sacrificial system requires. The new system requires almost no maintenance, is more cost effective, and will protect the entire transmission line from corrosion and future leaks.

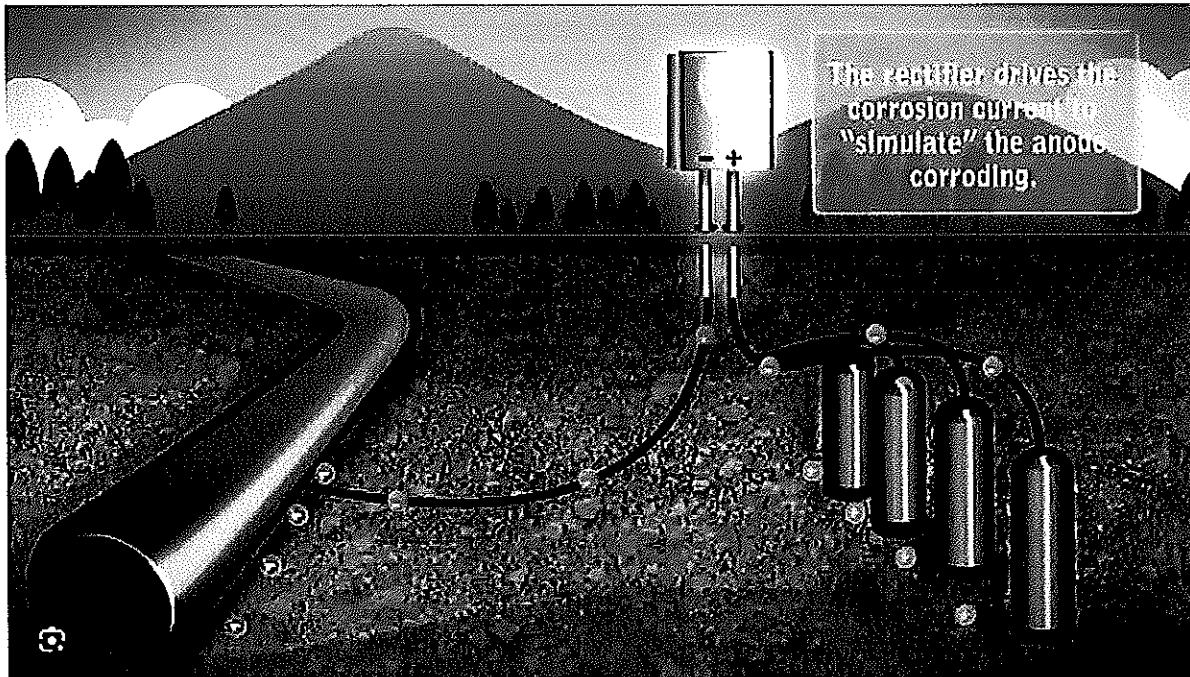


Figure 2. Depiction of an impress system that uses rectifiers like the one proposed as upgrade to STWA

Annual Survey

An annual survey of the cathodic system has been recommended to address any minor issues. The survey will be conducted by a company that specializes in Cathodic Protection that will be selected by South Texas Water Authority



Transmission Line Internal Inspection

The entire transmission line has never been inspected since the construction of the line in 1982. After over 40 years of service, it is necessary to assess the internal condition of the transmission line in order to detect any leaks or possible future leaks.

The survey we are proposing will insert a device called a Smart Ball which will detect

- Leaks,
- Air pockets X, Y,
- GPS coordinates

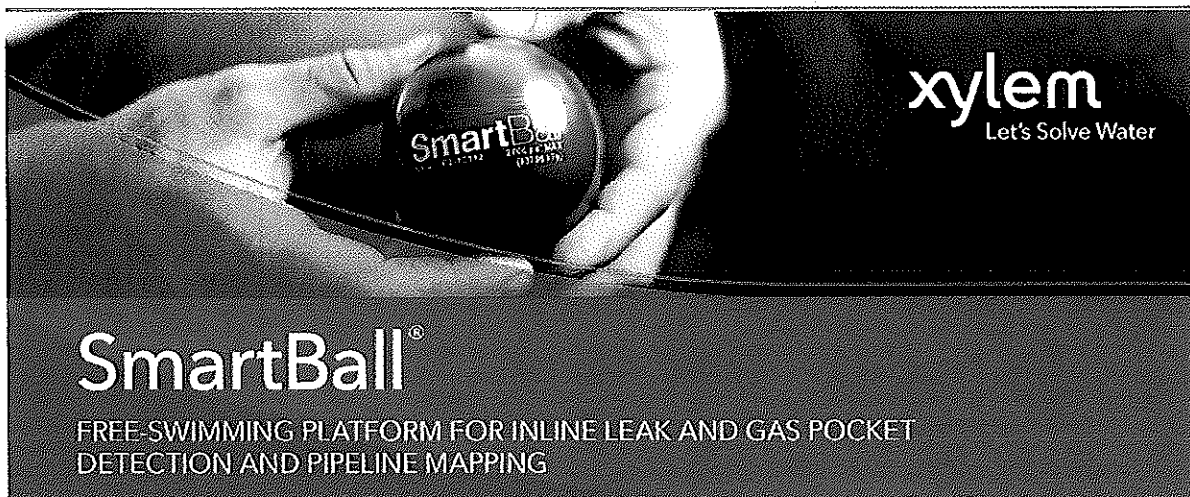


Figure 3. Smart Ball device for leak detection and GPS coordinates

The second device for the internal inspections is called a Pipe Diver. This apparatus is introduced through an Air Relief Valve (ARV) and navigates the entire length of the pipe providing

- Wall thickness,
- Pipe features such as outlets, valves and joints
- Location from upstream joint

This survey will provide a map of the current physical location of the line and will provide a report of the current condition of the pipe. If any small or major problems are detected repairs can be scheduled accordingly.



Figure 4. PipeDiver device for pipe internal inspection

Modeling of STWA Distribution System

In order to better comprehend the behavior of a distribution system a water modeling of the system is required. A model allows to understand how the water flows through the pipes and identify problem areas, and to better understand the distribution network with current and future conditions.

The modeling will include the following STWA distribution lines

- 42" Transmission Line
- 14" Spur line branching out west in Robstown and going to Central
- 12" Spur line branching leaving Central and going to Banquete, Sablatura Park and Agua Dulce
- 12" Spur line branching out south in Kingsville and going to Ricardo
- The interconnections between these lines and the pump stations

The modeling will not include the distribution lines of the municipalities. That is the network that connects the residencies and business within the municipality.

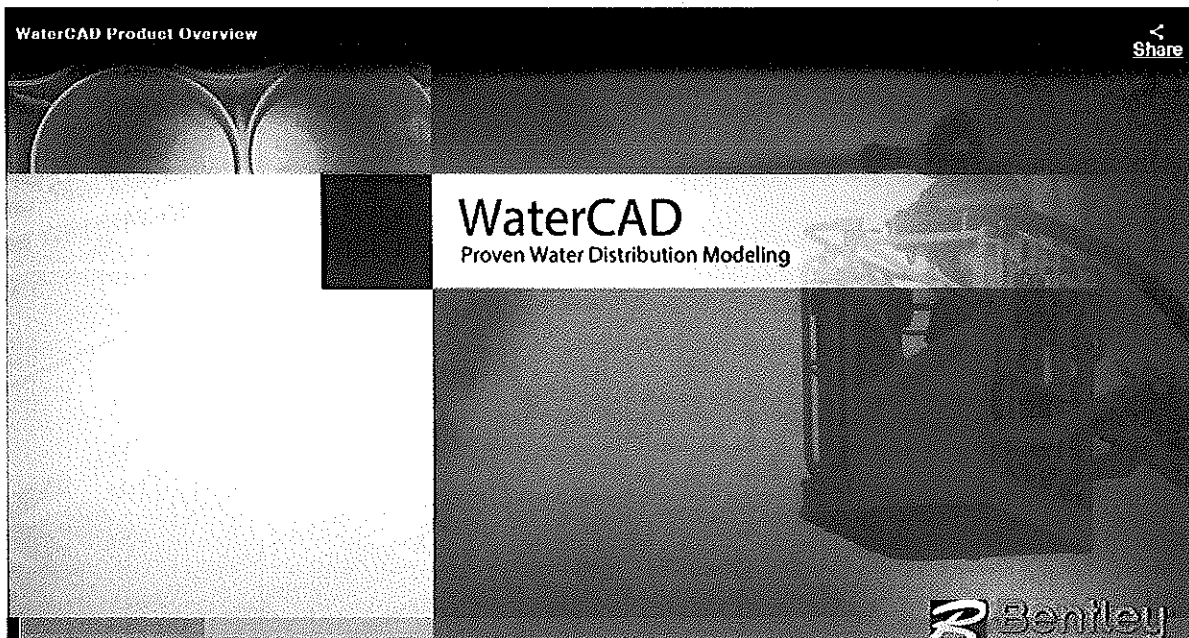


Figure 5. WaterCAD Modeling Software

STWA Water Conservation and Drought Contingency Plan

Reservoir System Operation Plan

The Authority does not own or operate any reservoirs. The water wholesaled by the Authority is purchased from the City of Corpus Christi, the responsible entity overseeing those tasks.

Five-year and Ten-year

Below are the FY 2023 per capita rates for the Authority's seven (7) wholesale customers. These figures are based on STWA's sales to these customers as well as information provided by the wholesale customers for self-supplied groundwater. The usage includes residential, commercial, institutional and industrial use.

As shown below, the cities of Kingsville and Bishop use groundwater wells in addition to the water provided by South Texas Water Authority. The remaining wholesale customers utilizes South Texas Water Authority for 100% of their water needs. Population figures are from the TWDB's Water User Group Entity Detailed GPCD Report with the exception of the Nueces WSC population which is based on the number of connections in 2023 multiplied times three (3) and the Nueces County Water Control and Improvement District #5 (Banquete CDP, Texas) which is based on American Fact Finder, United States Census Bureau.

Entity	FY 2023 Purchased Volume	FY 2023 Self supplied/ Adjustments	FY 2023 Total	FY 2023 Population	FY 2023 Per Capita Rate
Agua Dulce	31,158,936	0	31,158,936	685	125
Bishop	82,668,000	38,699,000	121,367,000	3,174	105
Driscoll	32,315,000	0	32,315,000	680	130
Kingsville	159,693,000	1,044,194,000	159,693,000	25,402	17
Nueces WSC (w/o Geo/IES)	143,105,930	30,836,620	112,269,310	3,276	94
• Geo Detention	26,786,020				
• IES/KB Foundation	4,050,600				
NWSCID#5	21,554,236	0	21,554,236	745	79
Ricardo WSC	125,922,000	0	125,922,000	3,330	104

Table 2. FY 2023 per capita rates for the Authority's seven (7) wholesale customers

The Authority has no enforcement mechanism to impose conservation targets and goals upon its wholesale customers. The Authority encourages its wholesale customers to educate its retail customers on the importance of water conservation in order to maintain a per capita gallon goal in the 140 - 145 gallon range. This figure closely correlates to the figure reported in the Texas Water Development Board's Water Use of Texas Water Utilities, Report to the 84th Texas Legislature, January 2015, for

Medium Utilities, Table 8. Average Water Use in Gallons Per Capita Daily, 2023. According to Table 8 Medium Utilities Average Total Water Use- Gallons Per Capita Daily is 141 gallons.

Conservation Strategies

- A. Conservation-Oriented Water Rates and Programs -South Texas Water Authority's negotiated contracts with its wholesale customers provide for a water rate which includes a Handling Charge to recoup fixed costs, and a variable cost component to cover the cost of water purchased from Corpus Christi and other variable expenses. South Texas Water Authority does not have any retail customers; therefore, it does not have any conservation programs such as providing low flow devices or appliances.
- B. South Texas Water Authority does not sell water to any agricultural customers; therefore, the Authority does not have any programs to assist agricultural customers in the development of conservation pollution prevention and abatement plans.
- C. South Texas Water Authority does not provide wastewater service; therefore, it does not have any programs for reuse and/or recycling of wastewater and/or graywater.

The Authority recognizes that there are numerous factors involved in achieving these goals including educating customers, adopting of conservation-oriented rates, and properly maintaining its infrastructure. As such, the Authority is actively involved in the Coastal Bend Regional Water Planning Group. The Authority will continue to assist its wholesale customers through the following voluntary programs:

- Providing Major Rivers to school districts
- Providing financial data for grant/loan applications
- Providing information on its website

In addition, the Authority makes use of water-wise vegetation and crushed limestone landscaping and grounds keeping. The Authority will request that wholesale customers voluntarily report their progress on water conservation activities on an annual basis.

Water Supply Contract

South Texas Water Authority recognizes that a requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, and including any contract extension, stipulates that each successive wholesale customer develop and implement a water conservation plan or water conservation measures. In addition, the Authority recognizes that should the customer intend to

resell the water, then the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures. Contracts or contract extensions will include those stipulations.

Implementation

Enclosed is a copy of the resolution adopting The Water Conservation and Drought Contingency Plan attached as Appendix A. **(THIS WILL ADDED UPON BOARD APPROVAL)**

Coordination with the Regional Water Planning Group

Enclosed is a copy of the cover letter sent to the Nueces River Authority, administrator of the Coastal Bend Regional Water Planning Group, attached as Appendix B. **(THIS WILL ADDED UPON BOARD APPROVAL)**

Review And Update

South Texas Water Authority shall review and update its Water Conservation and Drought Contingency Plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The original review occurred in May of 2009 and was scheduled for its next review in May of 2014. Instead, due to the extremely dry conditions of 2011, the plan was reviewed a year early in 2013. Now, in light of the City of Corpus Christi's updating of its Drought Contingency Plan, the Plan is being updated and will be revisited during 2024. Moving forwards the WCP will be revised every 5 years, next revision will be in 2029.

Part II – Drought Contingency Plan

The following Part II of the Water Conservation and Drought Contingency Plan is based on South Texas Water Authority's Drought Contingency Plan adopted by Board resolution on August 26, 1999 and updated to reflect changes made by the City of Corpus Christi to its drought contingency plan. Of particular importance are the changes to the trigger levels and accompanying restrictions. In addition, the allocation volumes have been recalculated to include the most recent data, located in Appendix C.

Section I: Declaration, Policy and Intent

In order to conserve the available water supply and/or to protect the integrity of water supply facilities, with particular regard for domestic water use and sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the South Texas Water Authority adopts the following Drought Contingency Plan, herein after referred to as the "Plan."

It is the intent that the Plan will:

- a) maintain a drought contingency plan providing the information and direction required by the Texas Administrative Code, Title 30, Environmental Quality, Chapter 288, as these regulations may be amended or modified;
- b) facilitate the development of the specifics of a regional drought contingency plan in conjunction with the Coastal Bend Regional Water Planning Group and the regional water supplier, the City of Corpus Christi;
- c) assist the Authority's customers in development and implementation of plans.

Section II: Public Involvement

Opportunity for the public and wholesale water customers to provide input into the preparation of the Plan was provided by South Texas Water Authority by means of notice of a public meeting and certified letter to wholesale customers.

Section III: Wholesale Water Customers Education

The South Texas Water Authority will periodically provide wholesale water customers with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of email, regular mail and certified letters.

The South Texas Water Authority currently wholesales water to the cities of Agua Dulce, Bishop, Driscoll, Kingsville and the Nueces County Water Control and Improvement District #5, (Banquete), the Nueces Water Supply Corporation and the Ricardo Water Supply Corporation.

Section IV: Coordination with Regional Water Planning Groups

The water service area of the South Texas Water Authority is located within Region N and the South Texas Water Authority has provided a copy of the Plan to the Coastal Bend Regional Water Planning Group

Section V: Authorization

The Executive Director/Administrator, or his/her designee, is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The Executive Director/Administrator, or his/her designee, shall have the authorization to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section VI: Application

The provisions of this Plan shall apply to all customers utilizing water provided by the South Texas Water Authority. The terms person and customer as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

Section VII Triggering Criteria for Initiation and Termination of Drought Response Stages

The Executive Director/Administrator or his/her designee shall monitor water supply and/or demand conditions on a weekly basis and shall determine when conditions warrant initiation or termination of each stage of the Plan. Coordination with the City of Corpus Christi, the regional water supplier, will be required. Customer notification of the initiation or termination of drought response stages will be made by mail or telephone. The news media will also be informed.

The table below is based on limits as adopted by the Corpus Christi City Council.

STWA Water Conservation and Drought Contingency Plan

Drought Stage Response	CCR/LCC Combined Reservoir Storage Level	Target Demand Reduction Level
Stage 1 – Mild	<40% of CCR/LCC Combined Level	10%
Stage 2 – Moderate	<30% of CCR/LCC Combined Level	20%
Stage 3 – Critical	<20% of CCR/LCC Combined Level	30%
Stage 4 –Emergency	Not Applicable	50%

(a) Stage 1 – Mild Water Shortage Conditions

Requirements for initiation - The South Texas Water Authority will declare and advise its wholesale customers that a mild water shortage condition exists when combined the combined water storage level declines below 40%

Requirements for termination – The South Texas Water Authority will declare and advise its wholesale customers that a moderate water shortage condition exists when the combined storage capacity of the Lake Corpus Christi/Choke Canyon Reservoirs is less than 30%

(b) Stage 2 – Moderate Water Shortage Conditions

Requirements for initiation - The South Texas Water Authority will declare and advise its wholesale customers that a moderate water shortage condition exists when the combined storage levels of the Lake Corpus Christi/Choke Canyon Reservoirs (LCC/CCR) is less than 30%.

Requirements for termination - Stage 2 of the Plan may be rescinded when the combined storage capacity level of the LCC/CCR increases above 40%. Upon termination of Stage 2, Stage I becomes operative. The South Texas Water Authority will notify its wholesale customers and the media of the termination of Stage 2 in the same manner as the notification of initiation of Stage I of the Plan, if applicable.

(c) Stage 3 – Critical Water Shortage Conditions

Requirements for initiation - The South Texas Water Authority will declare and advise its wholesale customers that a critical water shortage condition exists when the combined storage capacity of the Lake Corpus Christi/Choke Canyon Reservoirs is less than 20% of total storage capacity.

Requirements for termination - Stage 3 of the Plan may be rescinded when the combined storage capacity level of the LCC/CCR increases to above 30%. Upon termination of Stage 3, Stage 2 becomes operative. The South Texas Water Authority will notify its wholesale customers and the media of the termination of Stage 3 in the same manner as the notification of Stage 2 initiation, if applicable.

(d) Stage – Emergency Water Shortage Conditions

Requirements for initiation - South Texas Water Authority will declare and advise its wholesale customers that an emergency water shortage condition exists in the event of:

- a) A major water line break or breaks and/or pump station failures, whether owned and operated by South Texas Water Authority or the City of Corpus Christi, which cause unprecedented loss of capability to provide water service, or
- b) Water production limitations associated with the City of Corpus Christi's water treatment facilities, or
- c) A natural or man-made contamination of the water supply source(s).

Requirements for termination - Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist and are rescinded by the Corpus Christi City Manager or South Texas Water Authority Executive Director/Administrator, whoever is applicable.

Section VIII: Drought Response Stages

The Executive Director/Administrator, or his/her designee, shall monitor the water supply and/or demand conditions and, in accordance with the triggering criteria set forth in Section VII, shall determine that mild, moderate, severe or critical water shortage conditions exist, as established by the City of Corpus Christi, or that an emergency condition exists and shall implement the following actions:

Stage 1 – Mild Water Shortage Conditions

1. **Goal:** achieve a ten percent (10%) reduction as requested by the City of Corpus Christi.
2. **Supply Management Measures.** Request that wholesale customers consider implementation of the following regulations or prohibitions:
 - a. Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to once per week. Irrigation of landscaped areas could be permitted on any day if it is by means of a hand-held hose (with positive shutoff nozzle), a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system with a positive shutoff device. The City of Corpus Christi's watering schedule will be determined by the Corpus Christi City Manager or his/her designee. South Texas Water Authority will provide that information to its wholesale customers and recommend that similar, if unable to adopt identical, schedules be adopted. The Authority also recommends that exceptions for this restriction be permitted, upon review and approval by a Water Allocation and Review Committee appointed by the wholesale customer's governing body. Exceptions for consideration can include: new plantings - for up to 60 days, vegetable gardens, athletic playing fields and botanical gardens. Wholesale customers

may also consider adopting an exemption (whereby this restriction does not apply) to their retail customers irrigation with well water or an aerobic septic system. The Authority recommends that its wholesale customers adopt a permitting process for this exemption including the issuance of a posted permit to be prominently displayed on the premises and visible within two (2) feet of the premise's address.

- b. Use of water from hydrants shall be limited to firefighting related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the wholesale customer or wholesale customer's water department.
 - c. Use of water for the irrigation of golf course greens, tees, and fairways is prohibited exception on designated watering days. However, if the golf course utilizes a water source other than that provided from the City of Corpus Christi's regional supply, the facility will not be subject to this restriction, unless it is a separate requirement of the wholesale customer.
 - d. Use of water to maintain the integrity of building foundations is limited to designated watering days and is only permitted by use of hand-held hose or drip irrigation.
3. Demand Management Measures:
- a. The Executive Director/Administrator, or his/her designee(s) will initiate contact with wholesale water customers as needed to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversions and/or deliveries.
 - b. The Executive Director/Administrator, or his/her designee(s), will request wholesale water customers to initiate mandatory measures to reduce non-essential water use.
 - c. The Executive Director/Administrator, or his/her designee(s), will initiate preparations for the implementation of pro rata curtailment of water diversions and/or deliveries by preparing a monthly water usage allocation baseline for each wholesale customer according to the procedures specified in Section IX of the Plan.
 - d. The Executive Director/Administrator, or his/her designee(s), will provide reports as needed to the City of Corpus Christi with information regarding current wholesale customer usage.

Stage 2 – Moderate Water Shortage Conditions

1. Goal: achieve a fifteen percent (20%) reduction as requested by the City of Corpus Christi.
2. Supply Management Measures. South Texas Water Authority will advise its wholesale customers to continue in full force with restrictions set forth in Stage 1. In addition, request that wholesale customers consider implementation of the following additional regulations or prohibitions:

- a. Eliminate the flushing of water mains unless required for decontamination and/or public safety.
 - b. Review their retail customers' water usage for compliance based on the previous month's water use and notify violators verbally or in writing as the situation dictates.
 - c. Irrigation of landscaped areas shall be limited to **once every other week**. The City of Corpus Christi watering schedule will be determined by the Corpus Christi City Manager or his/her designee. South Texas Water Authority will provide that information to its wholesale customers and recommend that similar, if unable to adopt identical, schedules be adopted. The Authority will also recommend that exceptions for this restriction be permitted, upon review and approval by a Water Allocation and Review Committee appointed by the wholesale customer's governing body. Exceptions for consideration can include: new plantings - for up to 60 days, vegetable gardens, athletic playing fields and botanical gardens. Wholesale customers may also consider adopting an exemption (whereby this restriction does not apply) to their retail customers irrigating with well water or an aerobic septic system. The Authority recommends that its wholesale customers adopt a permitting process for this exemption including the issuance of a posted permit to be prominently displayed on the premises and visible within two (2) feet of the premise's address.
 - d. Irrigation of landscaped areas is permitted on any day if it is by means of a hand-held hose with positive shutoff nozzle, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system with a positive shutoff device.
 - e. The watering of golf course fairways is prohibited. Watering of greens and tees is limited to once every other week unless the golf course utilizes a water source other than that provided from the City of Corpus Christi's regional supply or if done by means of hand-held hoses, hand-held buckets, or drip irrigation and at the discretion of the wholesale customer's governing body.
 - f. In addition, the City of Corpus Christi may implement a drought surcharge for its residential and multi-unit customers to deter discretionary use of water. According to the City's Plan, the surcharge may be up to and including 100% of the current water rate added to the customer's bill.
 - g. South Texas Water Authority understands that its wholesale customers have their own budgetary needs and have the potential to face shortfalls as a result of decreased sales. In addition, South Texas Water Authority will be charged surcharges by the City of Corpus Christi for exceeding the calculated allocations. These surcharges will be collected from each wholesale customer that exceeds its allocation in accordance with Section IX of this Plan.
3. The Executive Director/Administrator, or his/her designee(s), will provide reports as needed to the City of Corpus Christi with information regarding current wholesale customer usage.

Stage 3 – Critical Water Shortage Conditions

1. Goal: achieve a thirty percent (30 %) reduction as requested by the City of Corpus Christi.

2. Supply Management Measures. South Texas Water Authority will advise its wholesale customers to continue in full force with restrictions set forth in Stage 2. In addition, request that wholesale customers consider implementation of the following additional regulations or prohibitions:
 - a. Upon written notice, disconnect the water meters of willful violators if absolutely necessary to prevent the deliberate wasting of water.
 - b. Irrigation of landscaped areas shall be prohibited at all times.
 - c. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle not on the premises of a commercial car wash station and not in the immediate interest of public health, safety, and welfare is prohibited.
 - d. Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or Jacuzzi-type pools and water parks, unless the source of water is a non-city, alternative source is prohibited.
 - e. Use of water to maintain the integrity of building foundations is still permitted on the designated Stage 2 watering day and is only permitted by use of hand-held hose or drip irrigation.
 - f. An additional measure at the discretion of the governing body is to disallow any applications for new, additional, expanded, or increase in size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind.
 - g. In addition, the City of Corpus Christi may implement a drought surcharge for its residential and multi-unit customers to deter discretionary use of water. According to the City's Plan, the surcharge may be up to and including 100% of the current water rate added to the customer's bill.
 - h. South Texas Water Authority understands that its wholesale customers have their own budgetary needs and have the potential to face shortfalls as a result of decreased sales. In addition, South Texas Water Authority will be charged surcharges by the City of Corpus Christi for exceeding the calculated allocations. These surcharges will be collected from each wholesale customer that exceeds its allocation in accordance with Section IX of this Plan.
3. The Executive Director, or his/her designee(s), will provide reports as needed to the City of Corpus Christi with information regarding current wholesale customer usage.

Stage 4 – Emergency Water Shortage

Whenever emergency water shortage conditions exist as defined in Section VII of the Plan, the Executive Director/Administrator shall:

1. Assess the severity of the problem and identify the actions needed and time required to solve the problem.
2. Inform the utility director or other responsible official of each wholesale water customer by telephone or in person and suggest actions, as appropriate, to alleviate problems.

3. If appropriate, notify city, county, and/or state emergency response officials for assistance.
4. Undertake necessary actions, including repairs and/or cleanup as needed. These actions shall include but not be limited to activating the emergency 4" waterline interconnection between the Nueces Water Supply Corporation's distribution system and the Nueces Water Control and Improvement District #3, use of tankard water trucks and hauling water from nearby systems such as the City of Alice and the City of Corpus Christi (if the emergency is not as a result of the City's own emergency), requesting the City of Agua Dulce to activate their groundwater well, requesting the City of Bishop to utilize its groundwater well for a larger percentage of its needs and requesting the City of Kingsville to utilize its groundwater wells for 100% of its water needs.
5. Prepare a post-event assessment report on the incident and critique of emergency response procedures and action.

Section IX: Pro Rata Water Allocation

In the event that the triggering criteria specified in Section VII of the Plan for Stage 3- Critical Water Shortage Conditions have been met, the Executive Director/Administrator is hereby authorized to initiate allocations of water supplies on a pro rata basis in accordance with Texas Water Code Section 11.039 and according to the following water allocation policies and procedures:

- a) A wholesale customer's monthly allocation shall be a percentage of the customer's water usage baseline. The percentage will be set by resolution of the Board of Directors based on the Executive Director/Administrator assessment of the severity of the water shortage condition and the need to curtail water diversions and/or deliveries and may be adjusted periodically by resolution of the Board of Directors as conditions warrant. Once the pro rata allocation is in effect, water diversions by or deliveries to each wholesale customer shall be limited to the allocation established for each month.
- b) A monthly water usage allocation shall be established by the Executive Director/Administrator, or his/her designee, for each wholesale customer. The wholesale customer's water usage baseline will be computed on the average water usage by month for the last five (5) year period as shown in the example given below. If the wholesale water customer's billing history is less than five (5) years, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exists.

Example Calculation of Monthly Allocation for a Hypothetical Wholesale Water Customer

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	SUM	AVE	Allocation Percentage	Monthly Allocation
Oct	133	137	146	148	156	720	144	70%	101
Nov	115	122	133	133	147	650	130	70%	91
Dec	130	150	146	149	159	734	147	70%	103
Jan	130	167	168	157	187	809	162	70%	113
Feb	160	152	179	183	171	845	169	70%	118
Mar	226	184	172	215	249	1,046	209	70%	145
Apr	235	274	232	314	246	1,301	260	70%	182
May	222	203	206	337	309	1,277	255	70%	179
Jun	199	160	196	229	198	982	196	70%	137
Jul	165	172	197	165	185	884	177	70%	124
Aug	139	142	149	153	162	745	149	70%	104
Sep	142	143	150	156	165	756	151	70%	106
TOT	1,996	2003	2,074	2,339	2,334		2,149		1,503

- c) The Executive Director/Administrator shall provide notice, by certified mail, to each wholesale customer informing them of their monthly water usage allocations and shall notify the City of Corpus Christi and the Executive Director of the Texas Commission on Environmental Quality upon initiation of pro rata water allocation.
- d) The Executive Director/Administrator shall provide notice, by certified mail, to each wholesale customer informing them of their monthly water usage allocations and shall notify the City of Corpus Christi and the Executive Director of the Texas Commission on Environmental Quality upon initiation of pro rata water allocation.
- e) Upon request of the customer or at the initiative of the Executive Director/Administrator, the allocation may be reduced or increased if, (1) the designated period does not accurately reflect the wholesale customer's normal water usage; (2) the customer agrees to transfer part of its allocation to another wholesale customer; or (3) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Board of Directors of the South Texas Water Authority.

Section X: Enforcement

During any period when pro rata allocation of available water supplies is in effect, South Texas Water Authority shall pay surcharges according to the City of Corpus Christi's Drought Contingency Plan, Sections 16.9 (Pro Rata Water Allocation) and 16.10 (Pro Rata Surcharges and Enforcement) which reads as follows:

In the event that the triggering criteria specified in Section 16. 7 of the [City of Corpus Christi 's] Plan for Stage 3 have been met, the City of Corpus Christi City Manager, or designee, is hereby authorized to implement allocation of water supplies on a pro rata

basis to raw water and treated wholesale customers in accordance with the Texas Water Code §11.039. The initiation of pro rata allocation preparations shall begin during Stage 2. A provision will be included in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code §11.039.

- 1. A raw water or wholesale treated water customer's monthly allocation shall be a percentage of the customer's water usage baseline. The percentage will be set by resolution of the City Council based on the City Manager's assessment of the severity of the water shortage condition and the need to curtail water diversions and deliveries, and may be adjusted periodically by resolution of the City Council as conditions warrant. Once pro rata allocation is in effect, water diversions by or deliveries to each raw water or wholesale treated water customer shall be limited to the allocation established for each month.*
- 2. A monthly water usage allocation shall be established by the City Manager, or the City Manager's designee, for each raw water or wholesale treated water customer. The raw water or wholesale treated water customer's water usage baseline will be computed on the average water usage by month for the previous five-year period. If the raw water or wholesale treated water customer's billing history is less than five (5) years, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exists.*
- 3. The City Manager shall provide notice, by certified mail, to each raw water or wholesale treated water customer informing them of their monthly water usage allocations and shall notify the news media and the Executive Director of the Texas Commission on Environmental Quality upon initiation of pro rata water allocation.*
- 4. Upon request of the raw water or wholesale treated water customer or at the initiative of the City Manager, the allocation may be reduced or increased if:
 - a. The designated period does not accurately reflect the raw water or wholesale treated water customer's normal water usage;*
 - b. The customer agrees to transfer part of its allocation to another raw water or wholesale treated water customer; or*
 - c. Other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal the allocation established under this section to the City Council of the City of Corpus Christi.**

During any period when pro rata allocation of available water supplies is in effect, wholesale customers shall pay the following surcharges on excess water diversions:

- *2.0 times the normal water rate per unit in excess of the monthly allocation up through 5 percent above the monthly allocation.*
- *2.5 times the normal water rate in excess of the monthly allocation from 5 percent through 10 percent above the monthly allocation.*
- *3.0 times the normal water rate in excess of the monthly allocation from 10 percent through 15 percent above the monthly allocation.*
- *times the normal water rate more than 15 percent above the monthly allocation.*

Any surcharges assessed against South Texas Water Authority by the City of Corpus Christi will be charged on a pro rata basis to the Authority's wholesale customers that have exceeded their monthly allocation calculated in accordance with Section IX.

Section XI: Variances

The Executive Director/Administrator, or his/her designee, may, in writing, grant a temporary variance to the pro rata water allocation policies provided by this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the public health, welfare, or safety and if one or more of the following conditions are met:

- a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.
- b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Wholesale customers requesting an exemption from the provisions of this Plan shall file a petition for variance with the Executive Director/Administrator within five (5) days after pro rata allocation has been invoked. All petitions for variances shall be reviewed by the Board of Directors, and shall include the following:

- a) Name and address of the petitioner(s).
- b) Detailed statement with supporting data and information as to how the pro rata allocation of water under the policies and procedures established in the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Plan.
- c) Description of the relief requested.
- d) Period of time for which the variance is sought.
- e) Alternative measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- f) Other pertinent information.

Variations granted by the Board of Directors shall be subject to restrictions placed on the South Texas Water Authority by the City of Corpus Christi and the following conditions, unless waived or modified by the Board of Directors or its designee:

- a) Variations granted shall include a timetable for compliance.
- b) Variations granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

Section XII: Severability

It is hereby declared to be the intention of the Board of Directors that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrases, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the Board of Directors without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

ATTACHMENT 9

Resolution 24-07

SOUTH TEXAS WATER AUTHORITY

Resolution 24-07

RESOLUTION OF THE BOARD OF DIRECTORS ADOPTING AN UPDATED
WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN FOR THE
SOUTH TEXAS WATER AUTHORITY.

WHEREAS, the Board recognizes that the importance of water and its availability to the South Texas Water Authority and to its wholesale water customers; and

WHEREAS, the Board recognizes that water resources are not a limitless resource and are subject to depletion during periods of extended drought;

WHEREAS, the South Texas Water Authority recognizes that natural limitations due to drought conditions and other acts of God cannot guarantee an uninterrupted water supply for all purposes; and

WHEREAS, the Texas Commission on Environmental Quality requires wholesale suppliers in Texas to prepare a Water Conservation and Drought Contingency Plan; and

WHEREAS, the Texas Water Code Section 11.039 authorizes water suppliers to distribute available water supplies on a pro rata basis during times of water supply shortage; and

WHEREAS, as authorized under law, and in the best interests of the customers of the South Texas Water Authority, the Board deems it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies on an ongoing basis as well as during drought and other water supply emergencies.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE SOUTH TEXAS WATER AUTHORITY:

SECTION 1. That the Amended Water Conservation and Drought Contingency Plan is attached hereto as Exhibit "A" and hereby adopted as the official policy of the South Texas Water Authority.

SECTION 2. That the Executive Director is hereby directed to implement, administer, and enforce the Water Conservation and Drought Contingency Plan.

SECTION 3. That this resolution shall take effect immediately upon its passage.

Duly adopted by the Board of Directors of the South Texas Water Authority on this 27th day of February, 2024.

ATTEST:

JOSE M. GRAVELEY, PRESIDENT

IMELDA GARZA, SECRETARY/TREASURER