TCEQ Interoffice Memorandum

TO: Office of the Chief Clerk
Texas Commission on Environmental Quality

THRU: Chris Kozlowski, Team Leader
Water Rights Permitting Team

FROM: Sarah Henderson, Project Manager
Water Rights Permitting Team

DATE: June 11, 2025

SUBJECT: City of Corpus Christi
WRTP 14124
CN600131858, RN112211776
Application No. 14124 for a Temporary Water Use Permit
Texas Water Code §§ 11.138, 11.042, Requiring Limited Mailed Notice
Nueces River, Nueces River Basin
Nueces County

The application and fees were received on May 12, 2025. Additional information was received on June 5 and June 9, 2025. The application was declared administratively complete and accepted for filing with the Office of the Chief Clerk on June 11, 2025. Mailed notice to the interjacent water right holders of record in the Nueces River Basin is required pursuant to Title 30 Texas Administrative Code (TAC) §295.161(b). Notice to Texas Parks and Wildlife Department and the Public Interest Council is required pursuant to 30 TAC 295.161(c).

All fees have been paid and the application is sufficient for filing.

Sarah Henderson
_____
Sarah Henderson, Project Manager
Water Rights Permitting Team
Water Rights Permitting and Availability Section

OCC Mailed Notice Required X YES NO

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 11, 2025

Mr. Esteban Ramos, Water Resources Manager **VIA E-MAIL**
City of Corpus Christi, Corpus Christi Water
2726 Holly Road
Corpus Christi, TX 78415-4112

RE: City of Corpus Christi
WRTP 14124
CN600131858, RN112211776
Application No. 14124 for a Temporary Water Use Permit
Texas Water Code §§ 11.138, 11.042, Requiring Limited Mailed Notice
Nueces River, Nueces River Basin
Nueces County

Dear Mr. Ramos:

This acknowledges receipt, on June 5 and June 9, 2025, of additional information.

The application was declared administratively complete and filed with the Office of the Chief Clerk on June 11, 2025. Staff will continue processing the application for consideration by the Executive Director.

Please be advised that additional information may be requested during the technical review phase of the application process.

If you have any questions concerning this matter, please contact me via email at sarah.henderson@tceq.texas.gov or by telephone at (512) 239-2535.

Sincerely,

Sarah Henderson

Sarah Henderson, Project Manager
Water Rights Permitting Team
Water Rights Permitting and Availability Section

Sarah Henderson

From: Esteban Ramos <[redacted]>
Sent: Monday, June 9, 2025 1:55 PM
To: Sarah Henderson
Cc: Chris Kozlowski; Humberto Galvan; Kathy Alexander; Andrew Molly [Drew]; Carlos Rubinstein; David Buzan; Nick Winkelmann; Herman Settemeyer; Maria Corona; Crystal Ybanez
Subject: RE: City of Corpus Christi WRTP No. 14124
Attachments: Letter RFI response 060925.pdf

> **Caution:** This email may contain suspicious content. Please take care when clicking links or opening attachments. When in doubt, contact the TCEQ Help Desk.

Dear Ms. Henderson:

Please find attached the City's response to the request for additional information dated June 6th, 2025. I have updated the files (Rev_NR ALU Monitoring Plan 060625 and Rev_Addendum 1 Worksheet 3.1) to the TCEQ's FTPS site. Please let me know if you have any additional questions.

Thank you
Esteban (Steve) Ramos
Water Resource Manager
Corpus Christi Water
361-826-3294

Corpus Christi Water
CCW
Serving the Coastal Bend

From: Sarah Henderson <sarah.henderson@tceq.texas.gov>
Sent: Friday, June 6, 2025 9:21 AM
To: Esteban Ramos <[redacted]>
Cc: Chris Kozlowski <chris.kozlowski@tceq.texas.gov>; Humberto Galvan <Humberto.Galvan@tceq.texas.gov>; Kathy Alexander <kathy.alexander@tceq.texas.gov>
Subject: City of Corpus Christi WRTP No. 14124

Mr. Ramos,

Please find the attached letter requesting additional information.
A response is due July 7, 2025.
Sincerely,
Sarah

Sarah Henderson
Water Rights Permitting Team
Water Availability Division
Texas Commission on Environmental Quality
P.O. Box 13087/MC-160
Austin, TX 78711-3087
(P) 512.239.2535
(F) 512.239.4770

Corpus Christi Water℠
Serving the Coastal Bend
2726 Holly Road • Corpus Christi, Texas 78415
Phone 361-826-1800 • Fax 361-826-1889 • www.cctexas.com

June 9, 2025

RE: City of Corpus Christi
WRTP 14124
CN600131858, RN112211776
Application No. 14124 for a Temporary Water Use Permit
Texas Water Code §§ 11.042, Requiring Limited Mailed Notice
Nueces River, Nueces River Basin
Nueces County

Dear Ms. Henderson:

This acknowledges receipt on June 6, 2025, of additional information requested before the application can be declared administratively complete. Below are the responses to the questions.

- Confirm that the map in Figure 2 of the *AQUATIC LIFE USE ASSESSMENT PLAN FOR THE NUECES RIVER BELOW LAKE CORPUS CHRISTI* reflects the locations and coordinates of the four discharge points described in the application.

    - Response: After further review of Figure 2 of the *AQUATIC LIFE USE ASSESSMENT PLAN FOR THE NUECES RIVER BELOW LAKE CORPUS CHRISTI* (ALU Plan). The City has updated Figure 2 in the ALU Plan (attached) to reflect the updated maps submitted on June 5, 2025. The updated maps and the ALU Plan reflect the locations and coordinates of the three discharge points described in the updated application.
    - In addition, a revised Addendum No.1 Worksheet 3.1 is attached. The total amount of groundwater being discharged is 17,920 acre-feet per year.

The City of Corpus Christi appreciates the time and effort given to review this application. If you have any questions, please let me know. You may contact me via email at [redacted] or by telephone at [redacted]

Thank you

Esteban Ramos

Esteban Ramos
Water Resource Manager
Corpus Christi Water
City of Corpus Christi

Attached:
Revied Nueces River Aquatic Life Use Monitoring Plan
Revised Addendum No.1 Worksheet 3.1

ADDENDUM NO. 1
REVISED ADDITIONAL INFORMATION
WORKSHEET 3.1
DISCHARGE POINT INFORMATION

Discharge Point for Well No.1

a. The amount of water that will be discharged at the point is approximately 2,240 acre-feet per year. The discharged amount includes the amount needed for use and to compensate for any conveyance losses.
b. Water will be discharged at this point at a maximum rate of 2 mgd or 3.1 cfs or 1390 gpm.
c. Name of Watercourse as shown on Official USGS maps: Nueces River
d. Zip Code 78380
e. Location of point: Lots 181, 182 and 183, Riverside Addition Unit Three, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nueces County, Texas (See attached Tax Resale Deed)
f. Point is at: Latitude 27.900268 degrees N, Longitude -97.687502 degrees W
g. Indicate the method used to calculate the discharge point location: Google Earth and Handheld GPS Devise
h. The attached enclosed map identifies the discharge point.

Discharge Point for Wells No. 2,3,5,6,7 and 8

a. The amount of water that will be discharged at the point is approximately 13,440 acre-feet per year. The discharged amount includes the amount needed for use and to compensate for any losses.
b. Water will be discharged at this point at a maximum rate of 2 mgd or 3.1 cfs or 1390 gpm, for each well. Total for the six wells is 12 mgd, 18.5 cfs, or 8,303 gpm.
c. Name of Watercourse as shown on Official USGS maps: Nueces River
d. Zip Code 78380
e. Location of point: Lot 142, Riverside Addition, Unit Three, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nueces County, Texas (See attached Tax Resale deed).
f. Point is at: Latitude 27.890752 degrees N, Longitude -97.674094 degrees W
i. Indicate the method used to calculate the discharge point location: Google Earth and Handheld GPS Devise
g. The attached enclosed map identifies the discharge point.

Discharge Point for Well 4

a. The amount of water that will be discharged at the point is approximately 2,240 acre-feet per year. The discharged amount includes the amount needed for use and to compensate for any losses.
b. Water will be discharged at this point at a maximum rate of 2 mgd or 3.1 cfs or 1,390 gpm.
c. Name of Watercourse as shown on Official USGS maps: Nueces River
d. Zip Code 78380
e. Location of point: Lots 155 and 156, Riverside Addition Unit Three, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nueces County, Texas (See attached Tax Resale Deed)
f. Point is at: Latitude 27.899372 degrees N, Longitude -97.682934 degrees W
j. Indicate the method used to calculate the discharge point location: Google Earth and Handheld GPS Devise
g. The attached enclosed map identifies the discharge point.

River Miles from Discharge Locations and WSD to Nueces River Pump Station	
Wesley Seale Dam (WSD)	21.08
Well 1 Discharge	4.08
Well 4 Discharge	3.80
Well 2, 3, 5, 6, 7, and 8 Discharge	2.93

Discharge Points	Latitude	Longitude
Well 1 Discharge	27.900268	-97.687502
Well 2, 3, 5, 6, 7, and 8 Discharge	27.890752	-97.674094
Well 4 Discharge	27.899897	-97.682449
Water Supply Facilities	**Latitude**	**Longitude**
Wesley Seale Dam	28.040995	-97.866006
O.N. Stevens WTP	27.859002	-97.627992
Nueces River Pump Station	27.867027	-97.634016
Calallen Dam	27.882782	-97.625535

- Water Supply Facilities
- Nueces County Parcels
- Nueces River
- Wells
- Discharge points

Well	Well Depth	Formation
CCW Well 1	810’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 2	744’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 3	780’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 4	710’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 5	750’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 6	780’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 7	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 8	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad

*Anticipated Total Depth

Wesley Seale Dam
Well 4 Site
Well 7 Site
Well 5 Site
Well 2 Site
Well 1 Discharge
Well 1 Site
Well 2, 3, 5, 6, 7, and 8 Discharge
Calallen Dam
Nueces River Pump Station
Well 4 Discharge
O.N. Stevens WTP
Well 3 Site
Well 8 Site
Well 6 Site

2.5 1.25 0 2.5 5 7.5 10 Miles

REVISION NO.	DATE	BY	DESCRIPTION
V18			

CITY OF CORPUS CHRISTI

NUECES RIVER GROUNDWATER PROJECT

SHEET 1 OF 2

05/16/2025

River Miles from Discharge Locations and WSD to Nueces River Pump Station	
Wesley Seale Dam (WSD)	21.08
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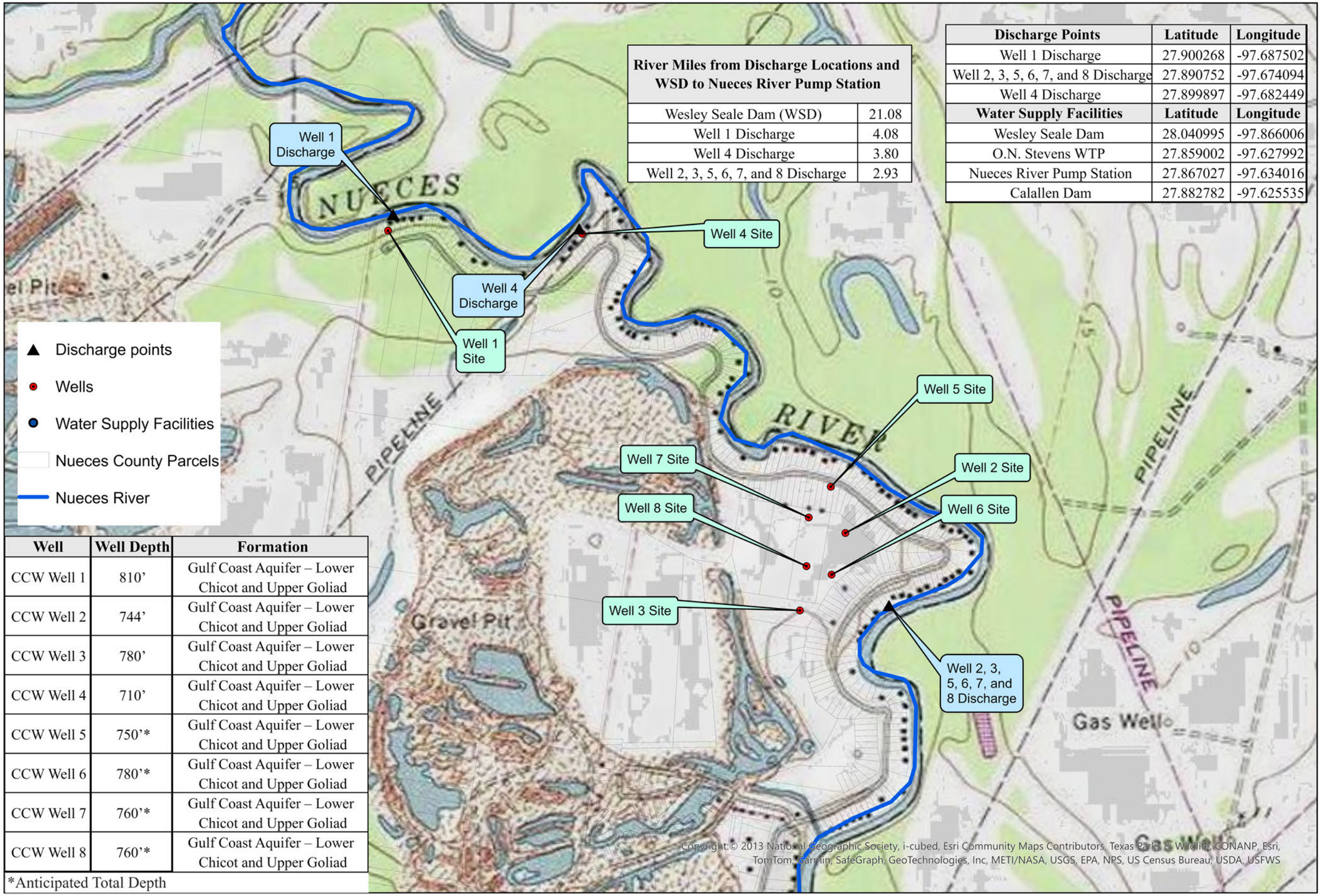

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CCW Well 2	744’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
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CCW Well 7	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 8	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad

*Anticipated Total Depth

REVISION NO.	DATE	BY	DESCRIPTION
V18			

Corpus Christi Water CCW Serving the Coastal Bend

CITY OF CORPUS CHRISTI

NUECES RIVER GROUNDWATER PROJECT

SHEET 2 OF 2

05/16/2025

Innovative approaches
Practical results
Outstanding service

AQUATIC LIFE USE ASSESSMENT PLAN FOR THE NUECES RIVER BELOW LAKE CORPUS CHRISTI

TCEQ SEGMENT 2102

Prepared for:

City of Corpus Christi

June 3, 2025

Prepared by:

FREESE AND NICHOLS, INC.
10431 Morado Circle, Suite 300
Austin, Texas 78759

Table of Contents

Figures

1.0 INTRODUCTION

Corpus Christi Water (CCW), the water and wastewater division of the City of Corpus Christi, is developing a groundwater project in response to the extreme drought faced by the Coastal Bend. Combined storage of the City's primary water supply is currently 15.6% and dropping daily. While the City has enacted strict drought restrictions on businesses and residents, water levels are expected to continue dropping due to ongoing below-average rainfall and above-average temperatures.

In response to this severe water supply shortage, CCW is developing several emergency projects to supplement the current water supply. One emergency project is addition of groundwater from eight wells adjacent to the Nueces River, Texas Commission on Environmental Quality (TCEQ) Water Quality Segment 2102 Nueces River Below Lake Corpus Christi.

This segment flows over 30 river miles from the Wesley E. Seale Dam at Lake Corpus Christi to a dam in Calallen that separates freshwater from the tidal zone of Nueces River. The Calallen Diversion Dam, otherwise known as the saltwater barrier dam, prevents most saline water from entering the Nueces River from the Nueces Bay tidal zone; however, tidal changes in the Nueces River delta can affect the river via the Rincon Bayou channel. Tidal changes along with agricultural runoff, improperly plugged oil and gas wells, and illegal dumping, have led to historically variable water quality within Segment 2102.

The proposed CCW groundwater project can provide over 13 million gallons per day (mgd) of water from the Chicot and Evangeline formations of the Gulf Coast Aquifer. Conveyance of this water will be through the Nueces River to the existing permitted intakes presently used by the City of Corpus Christi.

In a time of extreme drought and increasing water shortages in the Coastal Bend, CCW recognizes that there must be a balance between providing additional water supplies to the community and long-term protection of Nueces River water quality. TCEQ has designated a high aquatic life use (ALU) for Segment 2102 (TCEQ, 2022). CCW proposes to assess the ALU for Segment 2102 downstream of the proposed well discharges before well discharges are added to the river. The ALU assessment will help evaluate the relationship between the well discharges and ALU in the river. The City has acquired the services of Freese and Nichols, Inc. (FNI) biologists to conduct the ALU

assessment. This document outlines the approaches that will be used to conduct the ALU assessment according to TCEQ protocols (TCEQ, 2012; TCEQ, 2014).

1.1 HISTORICAL DATA ASSESSMENT

The TCEQ lists the Nueces River below Lake Corpus Christi as an impaired water body due to total dissolved solid (TDS) concentrations above the segment water quality standard of an annual average of 500 mg/L TDS. This designation appears on the TCEQ 303(d) list from 2012 to 2022 and was relisted in 2024 (TCEQ, 2024a).

To evaluate water quality in the river segment at the groundwater project location, historical data were collected and analyzed from multiple sources. From 2015 to 2025, monthly samples from water supply intakes on the Nueces River were analyzed at a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory for 28 parameters including conductivity and TDS. Conductivity ranged from 211 µS/cm to 1,664 µS/cm with an average of 1,092 µS/cm. TDS results ranged from 131 mg/L to 978 mg/L with an average of 656 mg/L.

CCW also monitors conductivity daily from the Nueces River as it enters the O.N. Stevens Water Treatment Plant (ONSWTP). Conductivity ranged from 205 µS/cm to 2,133 µS/cm with an average of 1,079 µS/cm. TCEQ states TDS can be estimated by multiplying conductivity readings by 0.65 (TCEQ, 2024b). Using this conversion factor, TDS results from 2024 and 2025 at the ONSTWP intake ranged from 133 mg/L to 1,386 mg/L and averaged 701 mg/L.

The Nueces River Authority maintains a water quality monitoring station (TCEQ Station ID 20936) at Hazel Bazemore Park boat ramp located approximately five miles downstream of the furthest proposed well discharge location. Specific conductivity at this location ranged from 580 µS/cm to 1,480 µS/cm and averaged 1,118 µS/cm from 2011 to 2022. The calculated TDS results range from 377 mg/L to 962 mg/L with an average of 727 mg/L.

Following rainfall on March 26 – 28. 2025, TDS values were frequently checked at the proposed well discharge locations to assess water quality changes. There was no well discharge at this time and TDS values ranged from 222 mg/L to 1,301 mg/L. These highly variable levels of TDS within Segment 2102 demonstrate TDS levels can vary widely in Segment 2102. **Figure 1** below displays the annual averages for minimum, maximum, and average TDS values from 2012 to 2025 using all data sources.

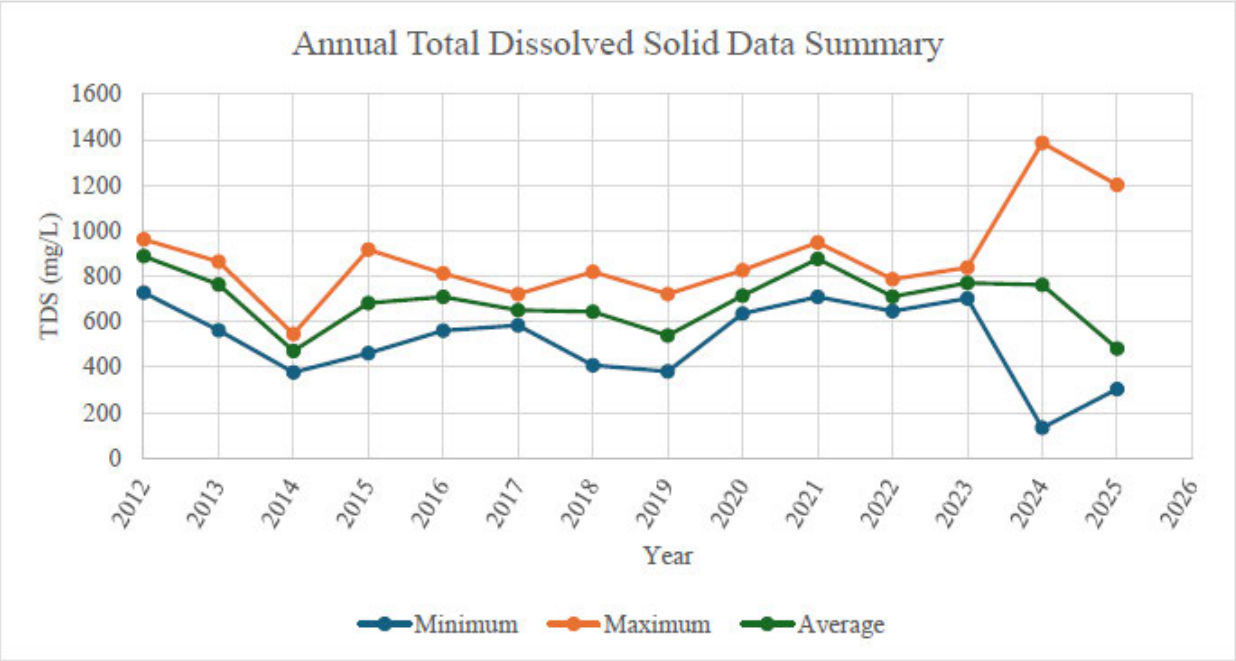

Figure 1
TDS Concentrations in the Nueces River, Segment 2102.
Figure produced by the City of Corpus Christi

1.2 PROPOSED WELLS

CCW is drilling eight wells adjacent to the Nueces River upstream of the ONSWTP intakes (**Figure 2**). Drilling and pump testing are complete for CCW – Well 1, CCW – Well 2, and CCW – Well 3. Initial samples of the groundwater in CCW wells 1 through 3 indicate TDS levels of 5,180 mg/L, 3,130 mg/L, and 3,660 mg/L respectively. CCW – Well 4 through CCW – Well 8 are currently in various stages of completion and will be sampled following 24-hour pump testing.

To assess the effect on river water quality that the well discharges may have, CCW staff sampled TDS across the width of the river and at the surface and near the bottom, upstream and downstream of a test CCW – Well 1 discharge. The river was sampled 6 meters (m) upstream of the discharge where TDS was 675 mg/L to 381 m downstream of the CCW – Well 1discharge location. CCW – Well 1 flow rate during this study was 1,100 gallons per minute with a TDS concentration of 5,020 mg/L before blending with the river. However, the highest recorded measurement of TDS in the Nueces River was 1,189 mg/L, occurring directly at the point of the well discharge at a depth of 1.2 m mid-river. Within 17 m downstream of the discharge, TDS levels stabilized at approximately 860 mg/L.

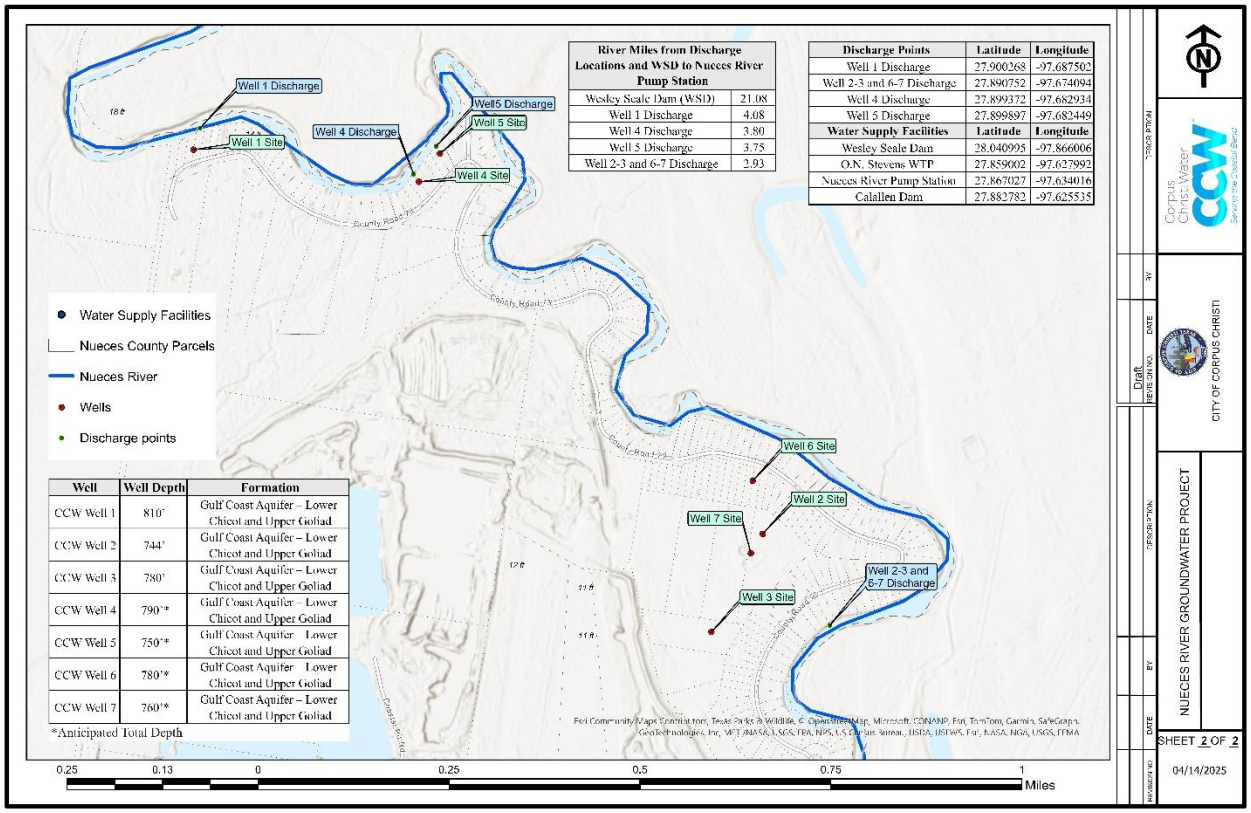

Figure 2
Locations of Groundwater Wells and Their Discharges to the Nueces River
Figure produced by the City of Corpus Christi

2.0 AQUATIC LIFE USE ASSESSMENT MONITORING LOCATIONS

ALU assessment monitoring is proposed for a 1,200 m long reach upstream from the boat ramp in Hazel Bazemore Park (**Figures 3, 4, and 5**). The Hazel Bazemore Park boat ramp is selected as the downstream end of the study reach because it is also a long-term surface water quality monitoring station, TCEQ Station ID 20936, for which water quality data are available from 2011 to 2025. The Nueces River Authority monitors water quality at this station.

A 1,200 m long reach was selected because TCEQ ALU assessment protocols indicate that a study reach of 40 to 100 times the stream width may be appropriate for assessing ALU in rivers (TCEQ, 2014). The Nueces River below the area of well discharges is about 30 m wide and does not exhibit large variations in width. Therefore a study reach length of 1,200 m (40 times an approximate width of 30 m) is proposed. The upstream end of the sampling reach is about 2.7 river miles downstream of the well discharges.

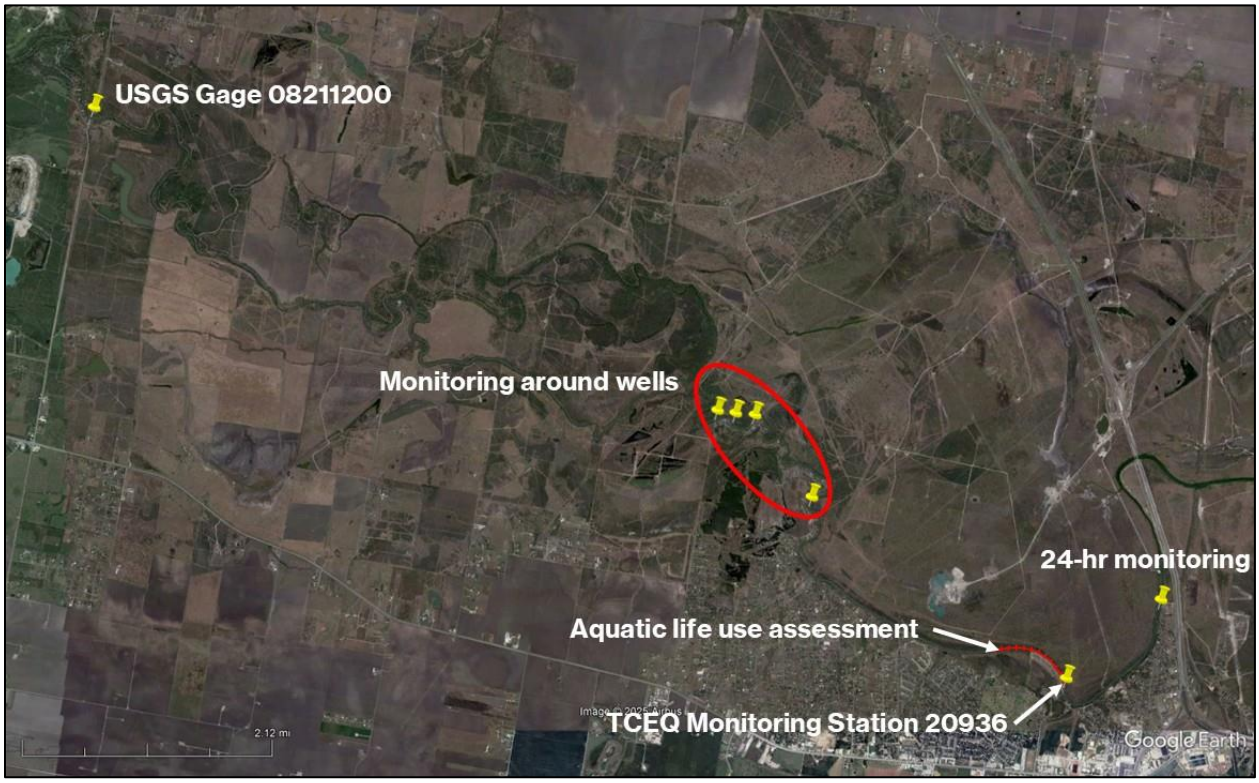

Figure 3

Study Area with all Monitoring Locations

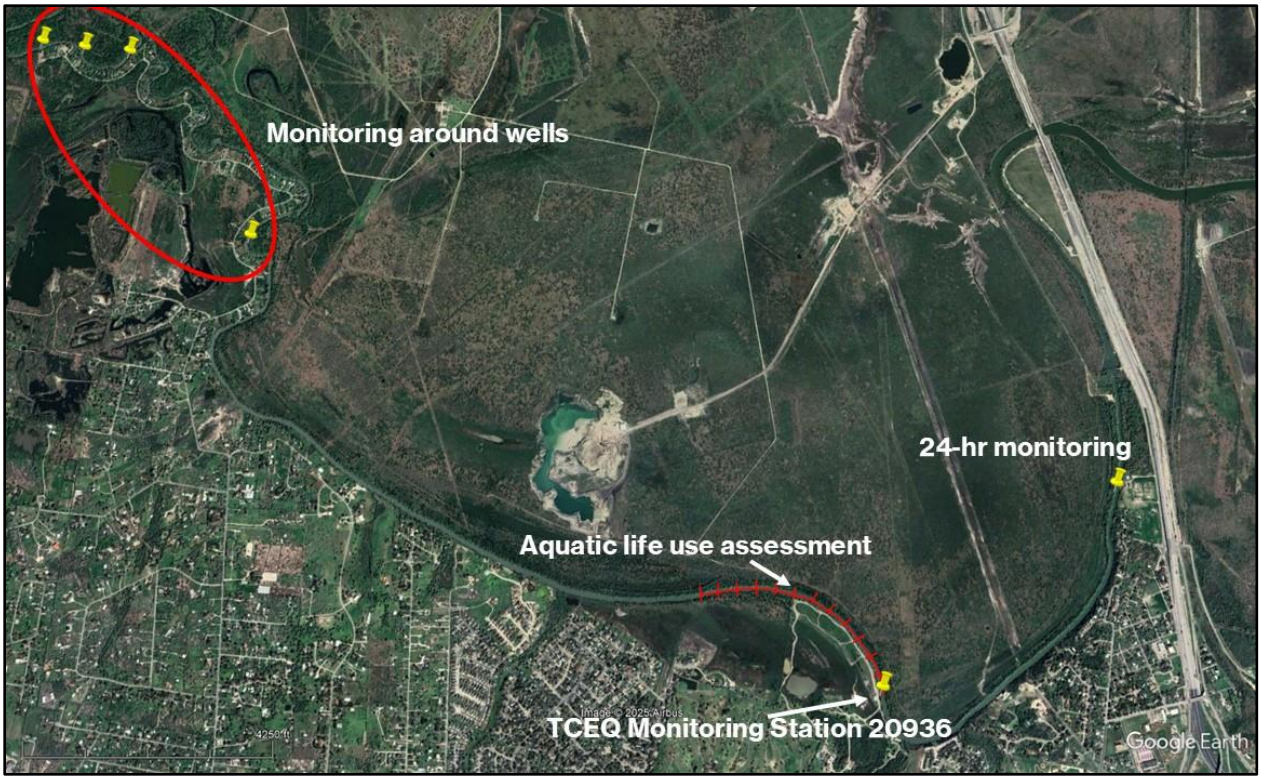

Figure 4

Study Area

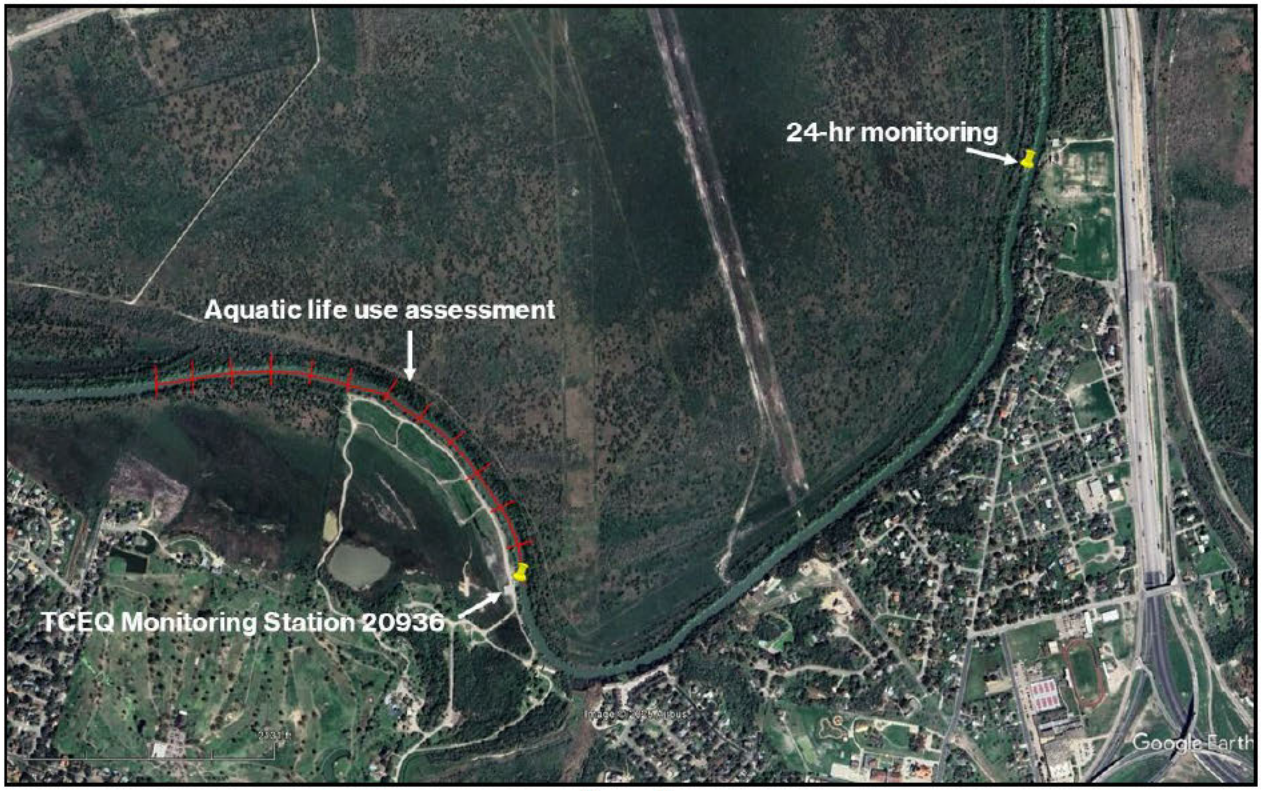

Figure 5

Aquatic Life Use Assessment Reach

The Nueces River in the study reach is not considered a wadeable stream and access to the study reach will be by boat. The study reach length may be modified if unexpected barriers to boat navigation are encountered during sampling.

2.1 HABITAT

Habitat measurements following TCEQ protocols (TCEQ, 2014) will be made at each of 12 transects across the river (**Figure 5**). Transects will be about 100 m apart and will be measured beginning 100 m upstream of the Hazel Bazemore Park boat ramp. The exact location of transects will be determined during the first sample event and locations of those transects will be recorded with GPS.

2.2 HYDROLOGY

The City and the U. S. Geological Survey operate a continuous monitoring station in the Nueces River (Nueces River at Bluntzer, TX, Gage 08211200) which monitors flow, pH, dissolved oxygen, rainfall, specific conductance, temperature, and turbidity and transmits those data at 15-minute intervals. This monitoring station is approximately 10 river miles upstream from the proposed discharge of

Well 1. Flow data will be obtained from the flow monitoring station on the river at Bluntzer. If conditions allow, flow will be measured at the upstream-most habitat transect (1,200 m upstream of the Hazel Bazemore Park boat ramp) and at the downstream-most transect (100 m upstream of the Hazel Bazemore Park boat ramp).

2.3 WATER QUALITY

CCW will deploy four continuous surface water monitoring multiparameter sondes (**Figures 3 and 4**). One sonde will be deployed approximately 30 m upstream of the CCW – Well 1 discharge to document TDS upstream of all well discharges. A second sonde will be positioned 15 m downstream of CCW – Well 1 discharge. The third sonde will be placed 15 m downstream of the CCW - Well 5 discharge, and the fourth sonde will be approximately 100m downstream of the discharge location for the furthest downstream well discharge. Each sonde will use a data logger and global cellular telemetry to transmit data.

Field water quality will also be obtained from the continuous monitoring station at Bluntzer. Field water quality will also be measured at the first, sixth, and twelfth habitat transects upstream of the Hazel Bazemore Park boat ramp.

24-hour monitoring of dissolved oxygen, temperature, pH, and specific conductance will be obtained from the ONSWTP intake on the river about 1.4 river miles downstream of the ALU study reach.

Water chemistry samples for laboratory analyses will be collected at TCEQ Station ID 20936 at Hazel Bazemore Park.

Nekton (fish, crabs, and shrimp) collections will be made in each type of mesohabitat using boat-mounted electrofishing. Review of available aerial imagery indicates there are not likely to be significant riffles, backwaters, or pools in the study reach. Consequently most sampling is expected to take place in runs, glides, and accumulations of woody debris. A minimum of 10 seine hauls will be made in the study reach with hauls in each type of mesohabitat. The location of each seine haul will be recorded with GPS.

A review of aerial imagery indicates the study reach may not have riffles or areas of gravel or cobble bottom that would be suitable for collection of benthic macroinvertebrates. It is expected that

benthic macroinvertebrates will be collected from woody debris snags. If samples are collected from snags, sampling will be conducted along the length of the sample reach and sample locations will be recorded using GPS (TCEQ, 2014).

3.0 METHODS

Sampling will be conducted following methods described in TCEQ surface water monitoring protocols for water quality, habitat, and biological sampling (TCEQ, 2012, TCEQ, 2014). Any deviations from these protocols that occur will be documented and explanations for the deviations will be provided.

3.1 HYDROLOGY

Flow data for the week preceding sampling and during the duration of field sampling will be obtained from the flow monitoring station on the river at Bluntzer. If conditions allow, flow will be measured at the upstream-most habitat transect (1,200 m upstream of the Hazel Bazemore Park boat ramp) and at the downstream-most transect (100 m upstream of the Hazel Bazemore Park boat ramp) with a SonTek M9 RiverSurveyor acoustic Doppler current profiler.

3.2 FIELD WATER QUALITY

Field water chemistry will be measured using calibrated multiparameter water quality meters and a cable allowing measurement to a depth of 15 feet. Meter maintenance, calibration, and operation will follow protocols in TCEQ's surface water monitoring protocols, Volume 1 (TCEQ, 2012). Field water quality measured at transects 1, 6, and 12 will be made at the middle of the channel, halfway between the middle of the channel and the right bank, and halfway between the middle of the channel and the left bank. At each measurement point, measurements will be made at a depth of 0.3 m and where depth is greater than 1.2 m, at mid-depth and at 0.3 m above the bottom.

Secchi disk transparency will be measured in the middle of the channel using a 20-centimeter-diameter Secchi disk lowered with a non-stretching chain or cord.

3.3 HABITAT CHARACTERIZATION

Habitat will be characterized using the tools and protocols described in Chapter 9, Physical Habitat of Aquatic Systems, in Volume 2 of TCEQ's surface water monitoring protocols (TCEQ, 2014). At each transect, the following measurements will be made:

- Stream width (m) with a tape measure
- Stream and thalweg depth (m) at 12 points, 11 equally spaced points and in the thalweg, with a stainless steel wading rod. Depth measurement may be made with an acoustic Doppler current profiler.
- Right and left bank slope (degrees) with an inclinometer
- Vegetative canopy cover (percent) with a densiometer
- Substrate composition: sampled with a pole or posthole digger
- Algae and macrophyte cover (absent, rare, common, or abundant): visual estimate by qualified professionals
- Riparian zone width: Measured in m for narrow riparian zones (<10 feet wide) and visually estimated from drone imagery for wider riparian zones
- Riparian zone vegetative cover: Visual estimate of the different types of vegetation in the riparian zone by qualified professionals
- Bank erosion (percent): visual estimate of vegetative cover or solid rock cover of the bank by qualified professionals
- Instream cover (percent): visual estimate by qualified professionals
- Dominant riparian cover: visual observations of different types of vegetative cover in the riparian zone by qualified professionals
- Four photographs will be taken at each transect from the middle of the channel – one upstream, one downstream, one of the left bank, and one of the right bank
- Drone imagery will be collected of the sampling reach if conditions permit drone flights

3.4 NEKTON SAMPLING

All biological sampling will be conducted under Texas Parks and Wildlife Department scientific collection permit 1006-756 issued to Andrew Labay. Nekton sampling will follow TCEQ protocols in Chapter 3, Freshwater Fish (TCEQ, 2014). Estuarine species like blue crabs, *Callinectes sapidus*, are

known to be found in this part of the Nueces River. Crabs, shrimp and other large invertebrates collected by these sampling methods will be included in the analysis.

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3.5 BENTHIC MACROINVERTEBRATES

Benthic macroinvertebrate sampling will follow TCEQ protocols in Chapter 5, Freshwater Benthic Macroinvertebrates (TCEQ, 2014). Reconnaissance will be conducted during the first sample trip to locate any riffles or accumulations of gravel and/or cobble that could be sampled with a kicknet with 0.5 millimeter mesh. If a suitable location to sample benthic macroinvertebrates with a kicknet is not identified, benthic macroinvertebrates will be collected from woody debris, leaf litter, or submerged vegetation. Samples will be analyzed by a biologist experienced in the identification of Texas freshwater benthic macroinvertebrates. Voucher specimens from each sample will be retained by FNI for five years.

Sampling will not be conducted for freshwater mussels; however, if live or dead mussels are observed, they will be identified, and voucher photos will be collected of representatives of each species.

3.6 WATER CHEMISTRY

Water samples for laboratory analysis will be collected once during each sample event at the surface water quality monitoring station at Hazel Bazemore Park boat ramp following protocols in chapters 4, Collecting and Analyzing Bacteriological Samples, and 5, Collecting Water Samples, in TCEQ protocols for surface water quality sampling (TCEQ, 2012).

Samples will be analyzed for alkalinity, chlorides, sulfates, total dissolved solids, total suspended solids, volatile suspended solids, total ammonia nitrogen, total Kjeldahl nitrogen, nitrite nitrogen, nitrate nitrogen, total phosphorus, total organic carbon, *E. coli*, chlorophyll α, and pheophytin α in a NELAP-certified laboratory. Observation data typically collected by the routine surface monitoring program including: air temperature, present weather, flow severity, water odor, turbidity, water color, wind direction, precipitation in past 24 hours, days since last rainfall, water surface condition, water depth at sample point, rainfall in past 7 days, and stream flow estimate, will be recorded.

4.0 FREQUENCY AND TIMING

Two sample events will take place in 2025. One sample event will be conducted before June 30, 2025. The second sample event will take place between July 1 and August 30. The second sample event will be at least 30 days after the first sample event. Sampling will be conducted when flow at the USGS gage at Bluntzer is at or below the median flow. Sampling will not be conducted when the river has experienced recent major flooding.

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Electronic copies of all field and lab data sheets will be retained. Photographs and drone imagery will also be retained.

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- Map figure(s) illustrating all sample sites. This may be accompanied by selected photographs of sample locations
- Description of sampling methods used
- Tables of all data collected

- Calculated Index of Biotic Integrity (IBI) for the nekton collected in each sample event. The sampling reach is in Level 4 Ecoregion 34c, Flood Plains and Low Terraces of the Western Gulf Coastal Plain (TCEQ, 2014). TCEQ has identified an IBI for the Level 3 Ecoregion, the Western Gulf Coastal Plain (TCEQ, 2014). Although an IBI can be calculated, the reader should be aware that the Western Gulf Coastal Plain IBI was developed from limited sampling from relatively small wadeable streams, none of which were in the Nueces River basin (Linam et al., 2002).
- Calculated IBIs for the benthic macroinvertebrates collected in each sample event. One IBI will be calculated based on the statewide IBI and a second IBI will be calculated based on the IBI for the Western Gulf Coastal Plain. Although IBIs can be calculated, the reader should be aware that these IBIs were developed from limited data from relatively small wadeable streams and from samples collected with kicknets. Kicknet sampling is not expected in the Nueces River study reach.
- Calculated Habitat Quality Index.
- Summary of relevant antecedent conditions, ex. rainfall, changes in flow, extreme heat, etc.
- Summary of observations relevant to understanding the habitat, nekton, and benthic macroinvertebrate community and factors affecting those communities.

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Innovative approaches
Practical results
Outstanding service

AQUATIC LIFE USE ASSESSMENT PLAN FOR THE NUECES RIVER BELOW LAKE CORPUS CHRISTI

TCEQ SEGMENT 2102

Prepared for:

City of Corpus Christi

June 3, 2025

Prepared by:

FREESE AND NICHOLS, INC.
10431 Morado Circle, Suite 300
Austin, Texas 78759

Table of Contents

Figures

1.0 INTRODUCTION

Corpus Christi Water (CCW), the water and wastewater division of the City of Corpus Christi, is developing a groundwater project in response to the extreme drought faced by the Coastal Bend. Combined storage of the City's primary water supply is currently 15.6% and dropping daily. While the City has enacted strict drought restrictions on businesses and residents, water levels are expected to continue dropping due to ongoing below-average rainfall and above-average temperatures.

In response to this severe water supply shortage, CCW is developing several emergency projects to supplement the current water supply. One emergency project is addition of groundwater from eight wells adjacent to the Nueces River, Texas Commission on Environmental Quality (TCEQ) Water Quality Segment 2102 Nueces River Below Lake Corpus Christi.

This segment flows over 30 river miles from the Wesley E. Seale Dam at Lake Corpus Christi to a dam in Calallen that separates freshwater from the tidal zone of Nueces River. The Calallen Diversion Dam, otherwise known as the saltwater barrier dam, prevents most saline water from entering the Nueces River from the Nueces Bay tidal zone; however, tidal changes in the Nueces River delta can affect the river via the Rincon Bayou channel. Tidal changes along with agricultural runoff, improperly plugged oil and gas wells, and illegal dumping, have led to historically variable water quality within Segment 2102.

The proposed CCW groundwater project can provide over 13 million gallons per day (mgd) of water from the Chicot and Evangeline formations of the Gulf Coast Aquifer. Conveyance of this water will be through the Nueces River to the existing permitted intakes presently used by the City of Corpus Christi.

In a time of extreme drought and increasing water shortages in the Coastal Bend, CCW recognizes that there must be a balance between providing additional water supplies to the community and long-term protection of Nueces River water quality. TCEQ has designated a high aquatic life use (ALU) for Segment 2102 (TCEQ, 2022). CCW proposes to assess the ALU for Segment 2102 downstream of the proposed well discharges before well discharges are added to the river. The ALU assessment will help evaluate the relationship between the well discharges and ALU in the river. The City has acquired the services of Freese and Nichols, Inc. (FNI) biologists to conduct the ALU

assessment. This document outlines the approaches that will be used to conduct the ALU assessment according to TCEQ protocols (TCEQ, 2012; TCEQ, 2014).

1.1 HISTORICAL DATA ASSESSMENT

The TCEQ lists the Nueces River below Lake Corpus Christi as an impaired water body due to total dissolved solid (TDS) concentrations above the segment water quality standard of an annual average of 500 mg/L TDS. This designation appears on the TCEQ 303(d) list from 2012 to 2022 and was relisted in 2024 (TCEQ, 2024a).

To evaluate water quality in the river segment at the groundwater project location, historical data were collected and analyzed from multiple sources. From 2015 to 2025, monthly samples from water supply intakes on the Nueces River were analyzed at a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory for 28 parameters including conductivity and TDS. Conductivity ranged from 211 µS/cm to 1,664 µS/cm with an average of 1,092 µS/cm. TDS results ranged from 131 mg/L to 978 mg/L with an average of 656 mg/L.

CCW also monitors conductivity daily from the Nueces River as it enters the O.N. Stevens Water Treatment Plant (ONSWTP). Conductivity ranged from 205 µS/cm to 2,133 µS/cm with an average of 1,079 µS/cm. TCEQ states TDS can be estimated by multiplying conductivity readings by 0.65 (TCEQ, 2024b). Using this conversion factor, TDS results from 2024 and 2025 at the ONSTWP intake ranged from 133 mg/L to 1,386 mg/L and averaged 701 mg/L.

The Nueces River Authority maintains a water quality monitoring station (TCEQ Station ID 20936) at Hazel Bazemore Park boat ramp located approximately five miles downstream of the furthest proposed well discharge location. Specific conductivity at this location ranged from 580 µS/cm to 1,480 µS/cm and averaged 1,118 µS/cm from 2011 to 2022. The calculated TDS results range from 377 mg/L to 962 mg/L with an average of 727 mg/L.

Following rainfall on March 26 – 28. 2025, TDS values were frequently checked at the proposed well discharge locations to assess water quality changes. There was no well discharge at this time and TDS values ranged from 222 mg/L to 1,301 mg/L. These highly variable levels of TDS within Segment 2102 demonstrate TDS levels can vary widely in Segment 2102. **Figure 1** below displays the annual averages for minimum, maximum, and average TDS values from 2012 to 2025 using all data sources.

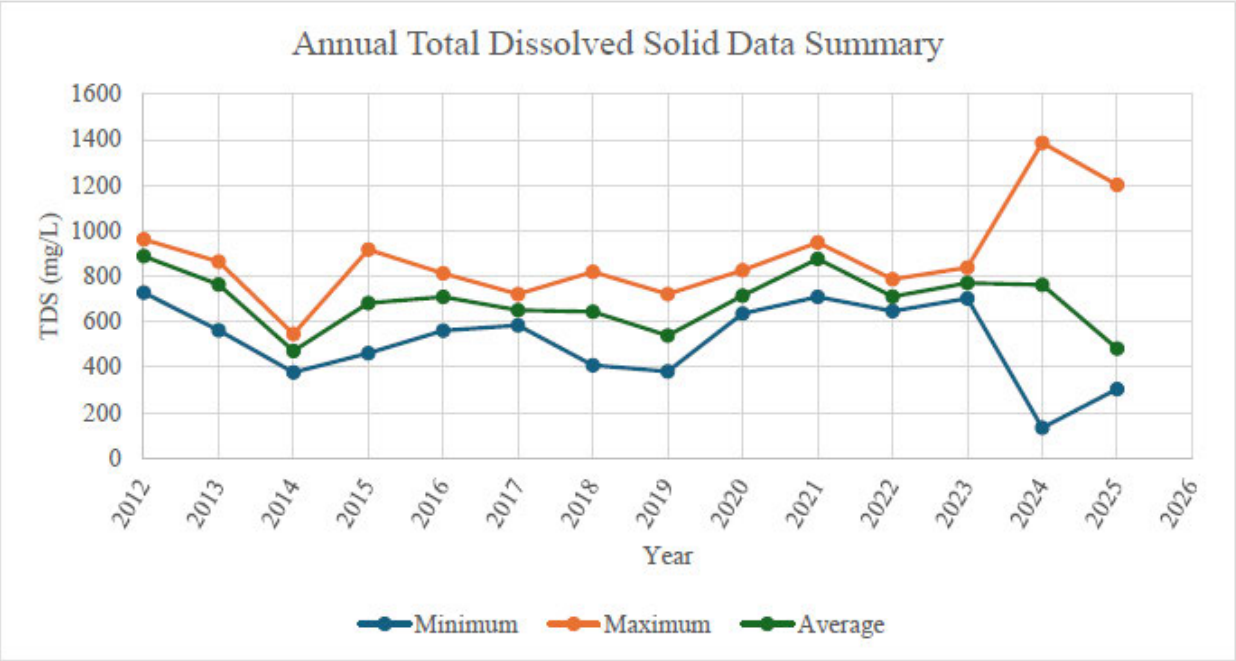

Figure 1
TDS Concentrations in the Nueces River, Segment 2102.
Figure produced by the City of Corpus Christi

1.2 PROPOSED WELLS

CCW is drilling eight wells adjacent to the Nueces River upstream of the ONSWTP intakes (**Figure 2**). Drilling and pump testing are complete for CCW – Well 1, CCW – Well 2, and CCW – Well 3. Initial samples of the groundwater in CCW wells 1 through 3 indicate TDS levels of 5,180 mg/L, 3,130 mg/L, and 3,660 mg/L respectively. CCW – Well 4 through CCW – Well 8 are currently in various stages of completion and will be sampled following 24-hour pump testing.

To assess the effect on river water quality that the well discharges may have, CCW staff sampled TDS across the width of the river and at the surface and near the bottom, upstream and downstream of a test CCW – Well 1 discharge. The river was sampled 6 meters (m) upstream of the discharge where TDS was 675 mg/L to 381 m downstream of the CCW – Well 1discharge location. CCW – Well 1 flow rate during this study was 1,100 gallons per minute with a TDS concentration of 5,020 mg/L before blending with the river. However, the highest recorded measurement of TDS in the Nueces River was 1,189 mg/L, occurring directly at the point of the well discharge at a depth of 1.2 m mid-river. Within 17 m downstream of the discharge, TDS levels stabilized at approximately 860 mg/L.

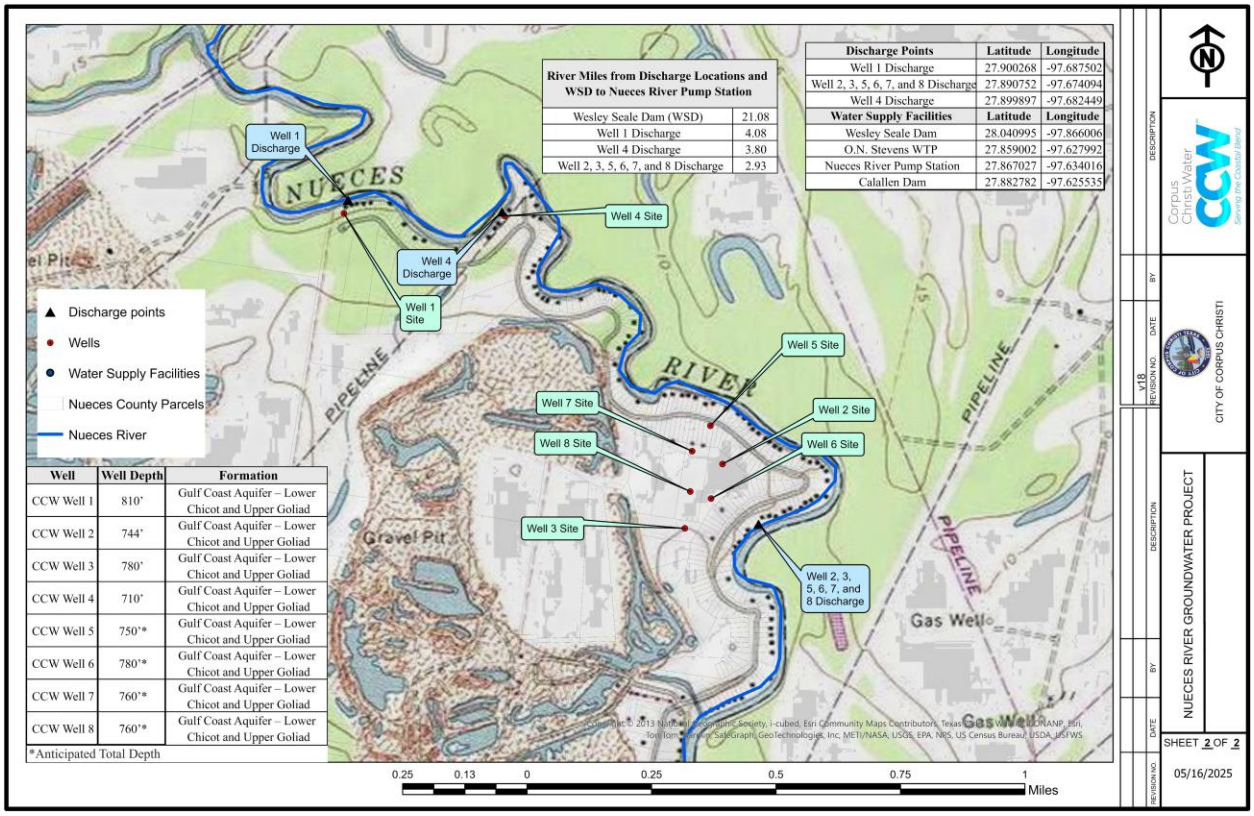

Figure 2
Locations of Groundwater Wells and Their Discharges to the Nueces River
Figure produced by the City of Corpus Christi

2.0 AQUATIC LIFE USE ASSESSMENT MONITORING LOCATIONS

ALU assessment monitoring is proposed for a 1,200 m long reach upstream from the boat ramp in Hazel Bazemore Park (**Figures 3, 4, and 5**). The Hazel Bazemore Park boat ramp is selected as the downstream end of the study reach because it is also a long-term surface water quality monitoring station, TCEQ Station ID 20936, for which water quality data are available from 2011 to 2025. The Nueces River Authority monitors water quality at this station.

A 1,200 m long reach was selected because TCEQ ALU assessment protocols indicate that a study reach of 40 to 100 times the stream width may be appropriate for assessing ALU in rivers (TCEQ, 2014). The Nueces River below the area of well discharges is about 30 m wide and does not exhibit large variations in width. Therefore a study reach length of 1,200 m (40 times an approximate width of 30 m) is proposed. The upstream end of the sampling reach is about 2.7 river miles downstream of the well discharges.

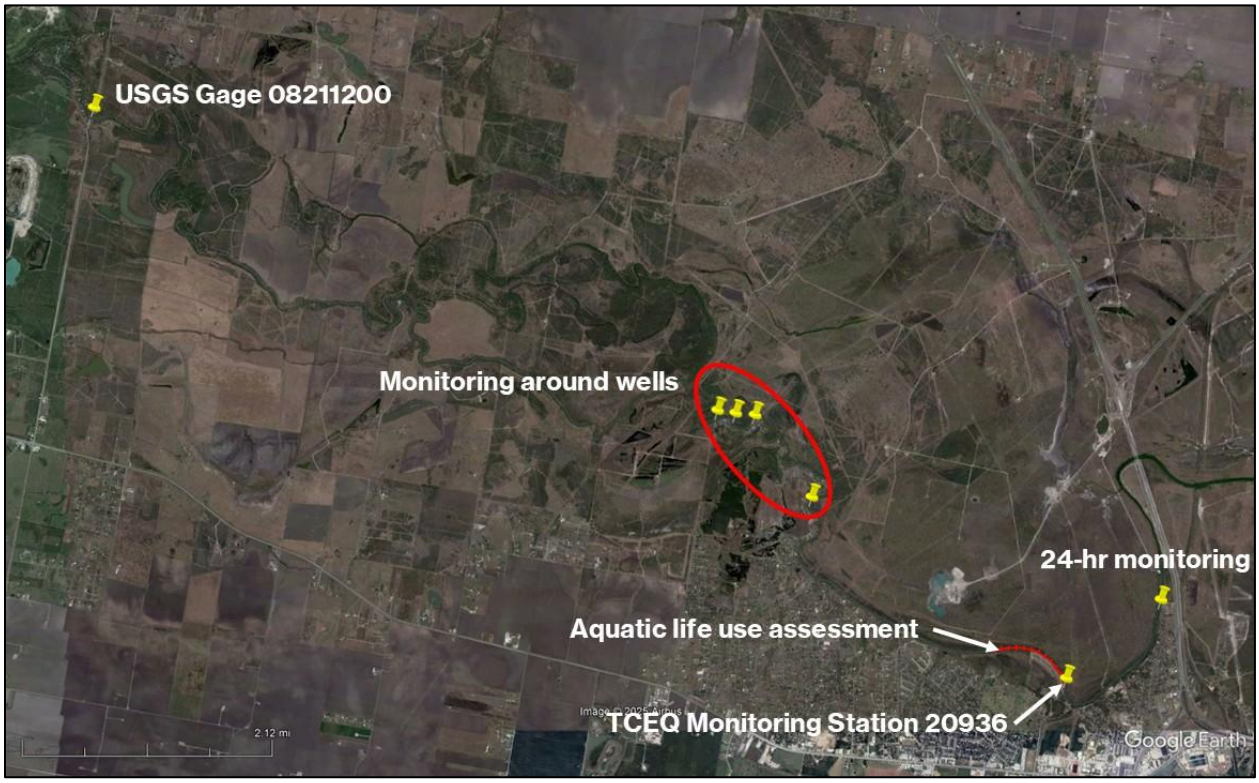

Figure 3

Study Area with all Monitoring Locations

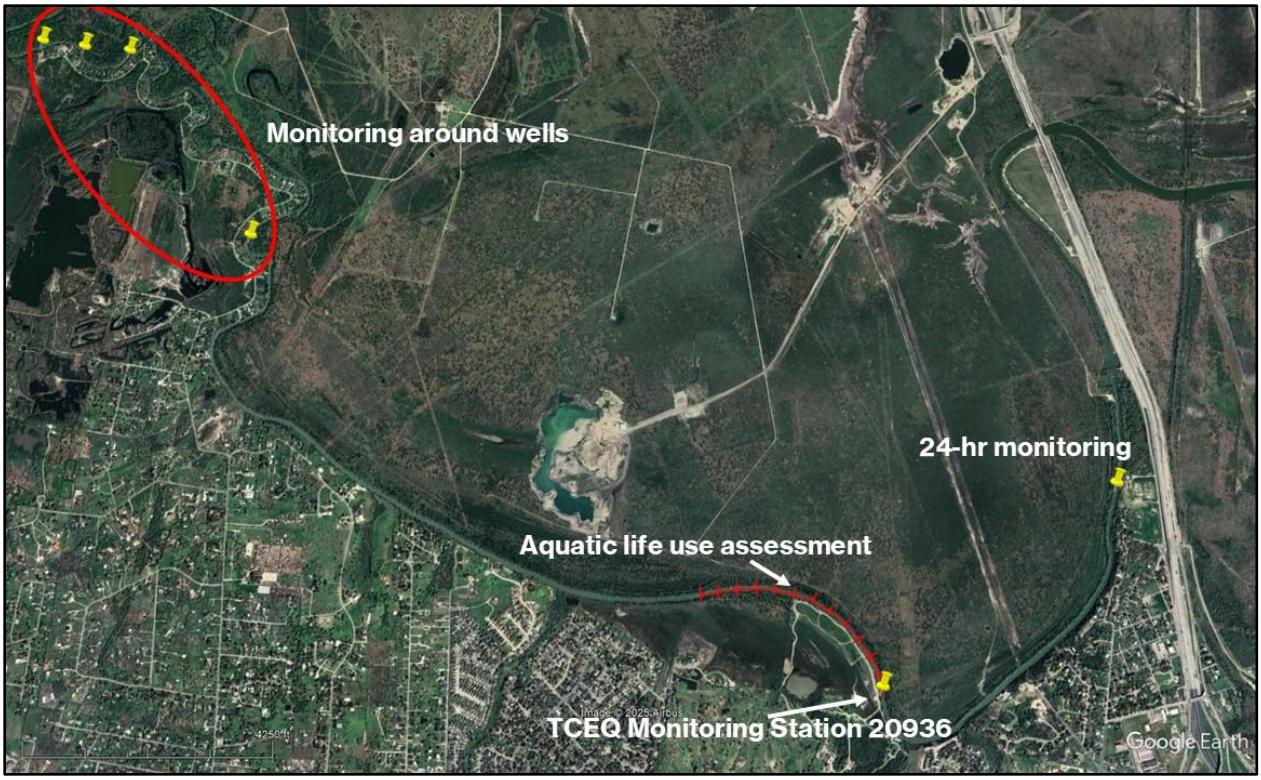

Figure 4

Study Area

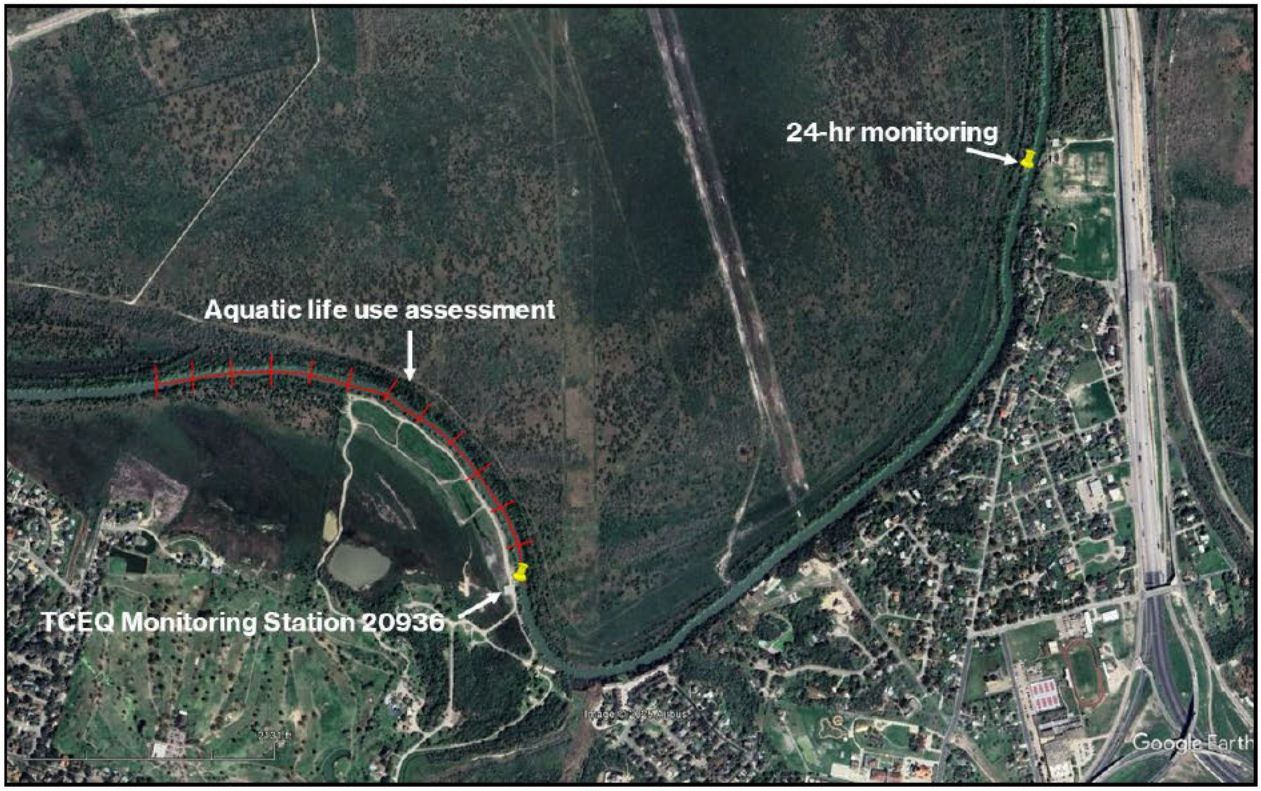

Figure 5

Aquatic Life Use Assessment Reach

The Nueces River in the study reach is not considered a wadeable stream and access to the study reach will be by boat. The study reach length may be modified if unexpected barriers to boat navigation are encountered during sampling.

2.1 HABITAT

Habitat measurements following TCEQ protocols (TCEQ, 2014) will be made at each of 12 transects across the river (**Figure 5**). Transects will be about 100 m apart and will be measured beginning 100 m upstream of the Hazel Bazemore Park boat ramp. The exact location of transects will be determined during the first sample event and locations of those transects will be recorded with GPS.

2.2 HYDROLOGY

The City and the U. S. Geological Survey operate a continuous monitoring station in the Nueces River (Nueces River at Bluntzer, TX, Gage 08211200) which monitors flow, pH, dissolved oxygen, rainfall, specific conductance, temperature, and turbidity and transmits those data at 15-minute intervals. This monitoring station is approximately 10 river miles upstream from the proposed discharge of

Well 1. Flow data will be obtained from the flow monitoring station on the river at Bluntzer. If conditions allow, flow will be measured at the upstream-most habitat transect (1,200 m upstream of the Hazel Bazemore Park boat ramp) and at the downstream-most transect (100 m upstream of the Hazel Bazemore Park boat ramp).

2.3 WATER QUALITY

CCW will deploy four continuous surface water monitoring multiparameter sondes (**Figures 3 and 4**). One sonde will be deployed approximately 30 m upstream of the CCW – Well 1 discharge to document TDS upstream of all well discharges. A second sonde will be positioned 15 m downstream of CCW – Well 1 discharge. The third sonde will be placed 15 m downstream of the CCW - Well 5 discharge, and the fourth sonde will be approximately 100m downstream of the discharge location for the furthest downstream well discharge. Each sonde will use a data logger and global cellular telemetry to transmit data.

Field water quality will also be obtained from the continuous monitoring station at Bluntzer. Field water quality will also be measured at the first, sixth, and twelfth habitat transects upstream of the Hazel Bazemore Park boat ramp.

24-hour monitoring of dissolved oxygen, temperature, pH, and specific conductance will be obtained from the ONSWTP intake on the river about 1.4 river miles downstream of the ALU study reach.

Water chemistry samples for laboratory analyses will be collected at TCEQ Station ID 20936 at Hazel Bazemore Park.

Nekton (fish, crabs, and shrimp) collections will be made in each type of mesohabitat using boat-mounted electrofishing. Review of available aerial imagery indicates there are not likely to be significant riffles, backwaters, or pools in the study reach. Consequently most sampling is expected to take place in runs, glides, and accumulations of woody debris. A minimum of 10 seine hauls will be made in the study reach with hauls in each type of mesohabitat. The location of each seine haul will be recorded with GPS.

A review of aerial imagery indicates the study reach may not have riffles or areas of gravel or cobble bottom that would be suitable for collection of benthic macroinvertebrates. It is expected that

benthic macroinvertebrates will be collected from woody debris snags. If samples are collected from snags, sampling will be conducted along the length of the sample reach and sample locations will be recorded using GPS (TCEQ, 2014).

3.0 METHODS

Sampling will be conducted following methods described in TCEQ surface water monitoring protocols for water quality, habitat, and biological sampling (TCEQ, 2012, TCEQ, 2014). Any deviations from these protocols that occur will be documented and explanations for the deviations will be provided.

3.1 HYDROLOGY

Flow data for the week preceding sampling and during the duration of field sampling will be obtained from the flow monitoring station on the river at Bluntzer. If conditions allow, flow will be measured at the upstream-most habitat transect (1,200 m upstream of the Hazel Bazemore Park boat ramp) and at the downstream-most transect (100 m upstream of the Hazel Bazemore Park boat ramp) with a SonTek M9 RiverSurveyor acoustic Doppler current profiler.

3.2 FIELD WATER QUALITY

Field water chemistry will be measured using calibrated multiparameter water quality meters and a cable allowing measurement to a depth of 15 feet. Meter maintenance, calibration, and operation will follow protocols in TCEQ's surface water monitoring protocols, Volume 1 (TCEQ, 2012). Field water quality measured at transects 1, 6, and 12 will be made at the middle of the channel, halfway between the middle of the channel and the right bank, and halfway between the middle of the channel and the left bank. At each measurement point, measurements will be made at a depth of 0.3 m and where depth is greater than 1.2 m, at mid-depth and at 0.3 m above the bottom.

Secchi disk transparency will be measured in the middle of the channel using a 20-centimeter-diameter Secchi disk lowered with a non-stretching chain or cord.

3.3 HABITAT CHARACTERIZATION

Habitat will be characterized using the tools and protocols described in Chapter 9, Physical Habitat of Aquatic Systems, in Volume 2 of TCEQ's surface water monitoring protocols (TCEQ, 2014). At each transect, the following measurements will be made:

- Stream width (m) with a tape measure
- Stream and thalweg depth (m) at 12 points, 11 equally spaced points and in the thalweg, with a stainless steel wading rod. Depth measurement may be made with an acoustic Doppler current profiler.
- Right and left bank slope (degrees) with an inclinometer
- Vegetative canopy cover (percent) with a densiometer
- Substrate composition: sampled with a pole or posthole digger
- Algae and macrophyte cover (absent, rare, common, or abundant): visual estimate by qualified professionals
- Riparian zone width: Measured in m for narrow riparian zones (<10 feet wide) and visually estimated from drone imagery for wider riparian zones
- Riparian zone vegetative cover: Visual estimate of the different types of vegetation in the riparian zone by qualified professionals
- Bank erosion (percent): visual estimate of vegetative cover or solid rock cover of the bank by qualified professionals
- Instream cover (percent): visual estimate by qualified professionals
- Dominant riparian cover: visual observations of different types of vegetative cover in the riparian zone by qualified professionals
- Four photographs will be taken at each transect from the middle of the channel – one upstream, one downstream, one of the left bank, and one of the right bank
- Drone imagery will be collected of the sampling reach if conditions permit drone flights

3.4 NEKTON SAMPLING

All biological sampling will be conducted under Texas Parks and Wildlife Department scientific collection permit 1006-756 issued to Andrew Labay. Nekton sampling will follow TCEQ protocols in Chapter 3, Freshwater Fish (TCEQ, 2014). Estuarine species like blue crabs, *Callinectes sapidus*, are

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Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

☒ New Permit or Registration Application

☐ New Activity – modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

☐ Requires public notice,

☐ Considered to have significant public interest, **and**

☐ Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

If all the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2 and submit the form.

☐ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)

- ☐ Texas Land Application Permit (TLAP)
- ☐ State Only Concentrated Animal Feeding Operation (CAFO)
- ☐ Water Treatment Plant Residuals Disposal Permit

☐ Class B Biosolids Land Application Permit

☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water

☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water

☐ Add a New or Existing Reservoir

☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

(City)

(County)

(Census Tract)
Please indicate which of these three is the level used for gathering the following information.

☐ City ☐ County ☐ Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

(b) Per capita income for population near the specified location

(c) Percent of minority population and percent of population by race within the specified location

(d) Percent of Linguistically Isolated Households by language within the specified location

(e) Languages commonly spoken in area by percentage

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☐ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☐ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☐ Yes ☐ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☐ Yes ☐ No

(e) If a public meeting is held, will a translator be provided if requested?

☐ Yes ☐ No

(f) Hard copies of the application will be available at the following (check all that apply):

☐ TCEQ Regional Office ☐ TCEQ Central Office

☐ Public Place (specify)

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

Corpus Christi Water℠
Serving the Coastal Bend
2726 Holly Road • Corpus Christi, Texas 78415
Phone 361-826-1800 • Fax 361-826-1889 • www.cctexas.com

June 5, 2025

RE: City of Corpus Christi
WRTP 14124
CN600131858, RN112211776
Application No. 14124 for a Temporary Water Use Permit
Texas Water Code §§ 11.042, Requiring Limited Mailed Notice
Nueces River, Nueces River Basin
Nueces County

Dear Ms. Henderson:

This acknowledges receipt on May 15, 2025, of additional information requested before the application can be declared administratively complete. Below are the responses to the questions, and any additional information for each response is attached.

1) Provide a USGS 7.5-minute topographic map (or equivalent) with the locations of all discharge points clearly marked. The maps submitted with the application are inconsistent with the information provided in Addendum No. 1.

   - Response: attached USGS 7.5-minute topographic maps.

2) Provide an assessment of the adequacy of the quantity and quality of flows remaining after the proposed diversion to meet instream uses and bay and estuary freshwater inflow needs. (Worksheet 4.0 Item 1.a.)

   - Response: The data obtained from the ongoing tests associated with the initial test discharges provides confidence that blending the well water with river Segment 2102 water will not cause adverse effects to aquatic life or overall quality. The data shows that the TDS concentrations are no higher than what has from time to time been found within this segment of the river. CCW is not aware of any incidents of fish kills or other aquatic life kills or impacts from these historic high levels of TDS. Therefore, CCW believes that since the TDS concentrations subsequent to the discharges are not higher than historical levels, there should be no additional toxic impacts to fish or the aquatic community. Thus, the monitoring proposed by the plan should provide adequate aquatic protection, and no additional monitoring is required for aquatic protection.

3) Provide an Aquatic Life Monitoring plan (ALM) that provides supporting information for the proposed action levels in the proposed Groundwater Monitoring Plan and documents the current Aquatic Life Use of Segment 2102 (Nueces River Below Lake Corpus Christi) prior to initiation of groundwater discharges and during the term of any permit granted for the application. The ALM plan must describe pre-project monitoring and biannual monitoring in accordance with the most recently approved TCEQ's Surface Water Quality Monitoring Procedures.

    - Response: attached Nueces River Aquatic Life Use Monitoring Plan.

In addition to the requested information needed to declare the application administratively complete, a revised Public Involvement Plan Form for Permit and Registration Applications (TCEQ-20960) indicating the correct notice for the application is attached.

The City of Corpus Christi appreciates the time and effort given to review this application. If you have any questions, please let me know. You may contact me via email at [redacted] or by telephone at [redacted]

Thank you

Esteban Ramos
Water Resource Manager
Corpus Christi Water
City of Corpus Christi

Attached:
USGS 7.5-minute topographic maps
Nueces River Aquatic Life Use Monitoring Plan
Revised Public Involvement Plan Form for Permit and Registration Applications (TCEQ-20960)

Sarah Henderson

From: Sarah Henderson
Sent: Friday, June 6, 2025 9:21 AM
To: Esteban Ramos
Cc: Chris Kozlowski; Humberto Galvan; Kathy Alexander
Subject: City of Corpus Christi WRTP No. 14124
Attachments: City of Corpus Christi_WRTP 14124_RFI2_6Jun2025.pdf

Mr. Ramos,
Please find the attached letter requesting additional information.
A response is due July 7, 2025.
Sincerely,
Sarah

Sarah Henderson
Water Rights Permitting Team
Water Availability Division
Texas Commission on Environmental Quality
P.O. Box 13087/MC-160
Austin, TX 78711-3087
(P) 512.239.2535
(F) 512.239.4770

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 6, 2025

Mr. Esteban Ramos, Water Resources Manager **VIA E-MAIL**
City of Corpus Christi, Corpus Christi Water
2726 Holly Road
Corpus Christi, TX 78415-4112

RE: City of Corpus Christi
WRTP 14124
CN600131858, RN112211776
Application No. 14124 for a Temporary Water Use Permit
Texas Water Code §§ 11.138, 11.042, Requiring Limited Mailed Notice
Nueces River, Nueces River Basin
Nueces County

Dear Mr. Ramos:

This acknowledges receipt, on June 5, 2025, of additional information.

Before the application can be declared administratively complete, confirm that the map in Figure 2 of the *AQUATIC LIFE USE ASSESSMENT PLAN FOR THE NUECES RIVER BELOW LAKE CORPUS CHRISTI* reflects the locations and coordinates of the four discharge points described in the application.

Please provide the requested information by July 7, 2025, or the application may be returned pursuant to Title 30 Texas Administrative Code § 281.18.

If you have any questions concerning this matter, please contact me via e-mail at Sarah.Henderson@tceq.texas.gov or by telephone at (512) 239-2535.

Sincerely,

Sarah Henderson

Sarah Henderson, Project Manager
Water Rights Permitting Team
Water Rights Permitting and Availability Section

Sarah Henderson

From: Esteban Ramos <[redacted]
Sent: Thursday, June 5, 2025 9:49 AM
To: Sarah Henderson
Subject: City of Corpus Christi B&B Application WRTP 14124 - RFI Response
Attachments: TCEQ RFI Reponse Letter 060525.pdf

Sarah:

Attached is the City's response to the RFI. I have uploaded the letter and additional documents to the FTP site. Please let me know if you have received them.

Thank you
Esteban (Steve) Ramos
Water Resource Manager
Corpus Christi Water
361-826-3294

Corpus Christi Water℠
Serving the Coastal Bend
2726 Holly Road • Corpus Christi, Texas 78415
Phone 361-826-1800 • Fax 361-826-1889 • www.cctexas.com

June 5, 2025

RE: City of Corpus Christi
WRTP 14124
CN600131858, RN112211776
Application No. 14124 for a Temporary Water Use Permit
Texas Water Code §§ 11.042, Requiring Limited Mailed Notice
Nueces River, Nueces River Basin
Nueces County

Dear Ms. Henderson:

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1) Provide a USGS 7.5-minute topographic map (or equivalent) with the locations of all discharge points clearly marked. The maps submitted with the application are inconsistent with the information provided in Addendum No. 1.

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In addition to the requested information needed to declare the application administratively complete, a revised Public Involvement Plan Form for Permit and Registration Applications (TCEQ-20960) indicating the correct notice for the application is attached.

The City of Corpus Christi appreciates the time and effort given to review this application. If you have any questions, please let me know. You may contact me via email at [redacted] or by telephone at [redacted]

Thank you

Esteban Ramos
Water Resource Manager
Corpus Christi Water
City of Corpus Christi

Attached:
USGS 7.5-minute topographic maps
Nueces River Aquatic Life Use Monitoring Plan
Revised Public Involvement Plan Form for Permit and Registration Applications (TCEQ-20960)

River Miles from Discharge Locations and WSD to Nueces River Pump Station	
Wesley Seale Dam (WSD)	21.08
Well 1 Discharge	4.08
Well 4 Discharge	3.80
Well 2, 3, 5, 6, 7, and 8 Discharge	2.93

Discharge Points	Latitude	Longitude
Well 1 Discharge	27.900268	-97.687502
Well 2, 3, 5, 6, 7, and 8 Discharge	27.890752	-97.674094
Well 4 Discharge	27.899897	-97.682449
Water Supply Facilities	**Latitude**	**Longitude**
Wesley Seale Dam	28.040995	-97.866006
O.N. Stevens WTP	27.859002	-97.627992
Nueces River Pump Station	27.867027	-97.634016
Calallen Dam	27.882782	-97.625535

- Water Supply Facilities
- Nueces County Parcels
- Nueces River
- Wells
- Discharge points

Well	Well Depth	Formation
CCW Well 1	810’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 2	744’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 3	780’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 4	710’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 5	750’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 6	780’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 7	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 8	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad

*Anticipated Total Depth

Wesley Seale Dam
Well 4 Site
Well 7 Site
Well 5 Site
Well 2 Site
Well 1 Discharge
Well 1 Site
Well 2, 3, 5, 6, 7, and 8 Discharge
Calallen Dam
Nueces River Pump Station
Well 4 Discharge
O.N. Stevens WTP
Well 3 Site
Well 8 Site
Well 6 Site

2.5 1.25 0 2.5 5 7.5 10 Miles

REVISION NO.	DATE	BY	DESCRIPTION
V18			

CITY OF CORPUS CHRISTI

NUECES RIVER GROUNDWATER PROJECT

SHEET 1 OF 2

05/16/2025

River Miles from Discharge Locations and WSD to Nueces River Pump Station	
Wesley Seale Dam (WSD)	21.08
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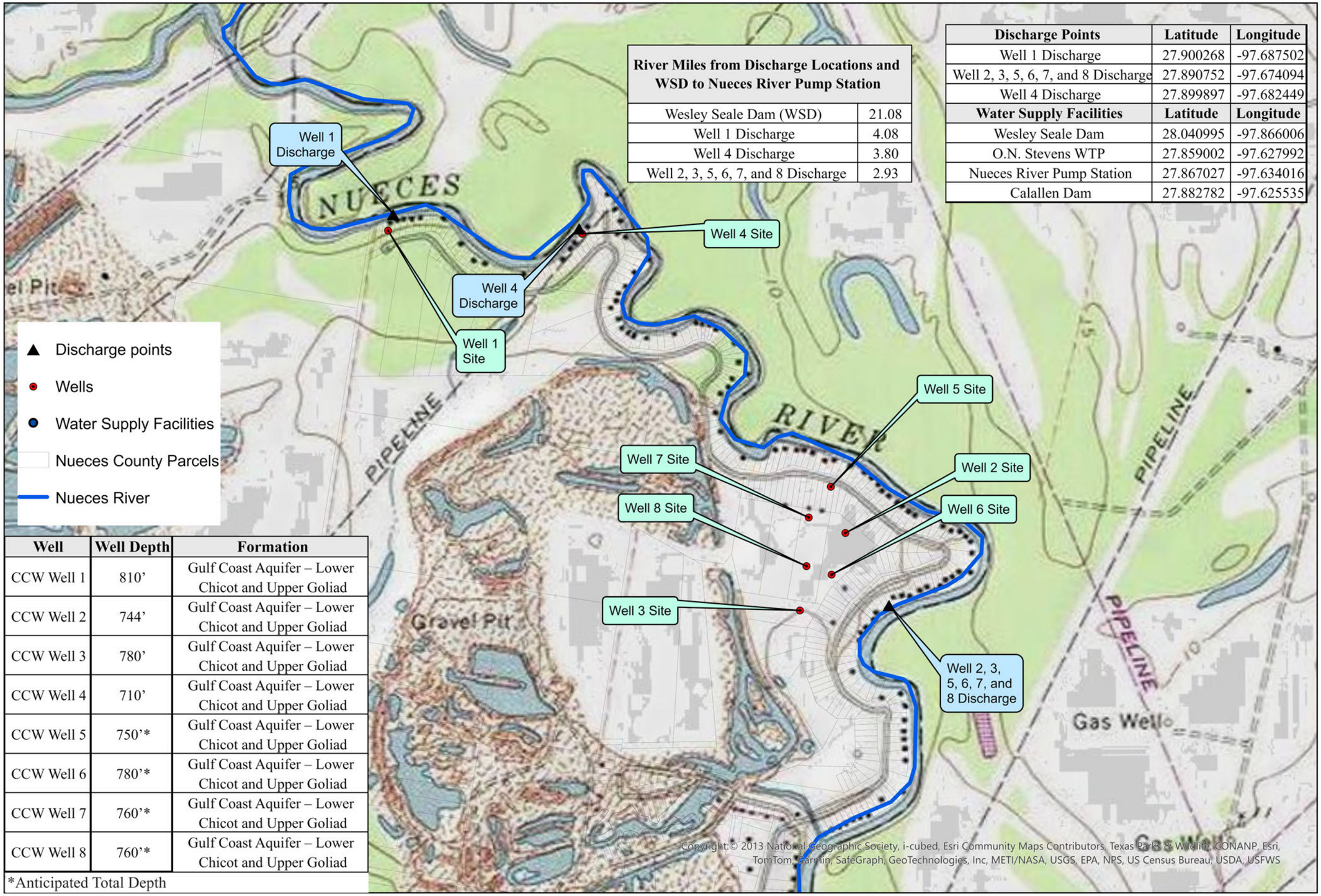

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CCW Well 7	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 8	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad

*Anticipated Total Depth

REVISION NO.	DATE	BY	DESCRIPTION
V18			

Corpus Christi Water CCW Serving the Coastal Bend

CITY OF CORPUS CHRISTI

NUECES RIVER GROUNDWATER PROJECT

SHEET 2 OF 2

05/16/2025

Innovative approaches
Practical results
Outstanding service

AQUATIC LIFE USE ASSESSMENT PLAN FOR THE NUECES RIVER BELOW LAKE CORPUS CHRISTI

TCEQ SEGMENT 2102

Prepared for:

City of Corpus Christi

June 3, 2025

Prepared by:

FREESE AND NICHOLS, INC.
10431 Morado Circle, Suite 300
Austin, Texas 78759

Table of Contents

Figures

1.0 INTRODUCTION

Corpus Christi Water (CCW), the water and wastewater division of the City of Corpus Christi, is developing a groundwater project in response to the extreme drought faced by the Coastal Bend. Combined storage of the City's primary water supply is currently 15.6% and dropping daily. While the City has enacted strict drought restrictions on businesses and residents, water levels are expected to continue dropping due to ongoing below-average rainfall and above-average temperatures.

In response to this severe water supply shortage, CCW is developing several emergency projects to supplement the current water supply. One emergency project is addition of groundwater from eight wells adjacent to the Nueces River, Texas Commission on Environmental Quality (TCEQ) Water Quality Segment 2102 Nueces River Below Lake Corpus Christi.

This segment flows over 30 river miles from the Wesley E. Seale Dam at Lake Corpus Christi to a dam in Calallen that separates freshwater from the tidal zone of Nueces River. The Calallen Diversion Dam, otherwise known as the saltwater barrier dam, prevents most saline water from entering the Nueces River from the Nueces Bay tidal zone; however, tidal changes in the Nueces River delta can affect the river via the Rincon Bayou channel. Tidal changes along with agricultural runoff, improperly plugged oil and gas wells, and illegal dumping, have led to historically variable water quality within Segment 2102.

The proposed CCW groundwater project can provide over 13 million gallons per day (mgd) of water from the Chicot and Evangeline formations of the Gulf Coast Aquifer. Conveyance of this water will be through the Nueces River to the existing permitted intakes presently used by the City of Corpus Christi.

In a time of extreme drought and increasing water shortages in the Coastal Bend, CCW recognizes that there must be a balance between providing additional water supplies to the community and long-term protection of Nueces River water quality. TCEQ has designated a high aquatic life use (ALU) for Segment 2102 (TCEQ, 2022). CCW proposes to assess the ALU for Segment 2102 downstream of the proposed well discharges before well discharges are added to the river. The ALU assessment will help evaluate the relationship between the well discharges and ALU in the river. The City has acquired the services of Freese and Nichols, Inc. (FNI) biologists to conduct the ALU

assessment. This document outlines the approaches that will be used to conduct the ALU assessment according to TCEQ protocols (TCEQ, 2012; TCEQ, 2014).

1.1 HISTORICAL DATA ASSESSMENT

The TCEQ lists the Nueces River below Lake Corpus Christi as an impaired water body due to total dissolved solid (TDS) concentrations above the segment water quality standard of an annual average of 500 mg/L TDS. This designation appears on the TCEQ 303(d) list from 2012 to 2022 and was relisted in 2024 (TCEQ, 2024a).

To evaluate water quality in the river segment at the groundwater project location, historical data were collected and analyzed from multiple sources. From 2015 to 2025, monthly samples from water supply intakes on the Nueces River were analyzed at a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory for 28 parameters including conductivity and TDS. Conductivity ranged from 211 µS/cm to 1,664 µS/cm with an average of 1,092 µS/cm. TDS results ranged from 131 mg/L to 978 mg/L with an average of 656 mg/L.

CCW also monitors conductivity daily from the Nueces River as it enters the O.N. Stevens Water Treatment Plant (ONSWTP). Conductivity ranged from 205 µS/cm to 2,133 µS/cm with an average of 1,079 µS/cm. TCEQ states TDS can be estimated by multiplying conductivity readings by 0.65 (TCEQ, 2024b). Using this conversion factor, TDS results from 2024 and 2025 at the ONSTWP intake ranged from 133 mg/L to 1,386 mg/L and averaged 701 mg/L.

The Nueces River Authority maintains a water quality monitoring station (TCEQ Station ID 20936) at Hazel Bazemore Park boat ramp located approximately five miles downstream of the furthest proposed well discharge location. Specific conductivity at this location ranged from 580 µS/cm to 1,480 µS/cm and averaged 1,118 µS/cm from 2011 to 2022. The calculated TDS results range from 377 mg/L to 962 mg/L with an average of 727 mg/L.

Following rainfall on March 26 – 28. 2025, TDS values were frequently checked at the proposed well discharge locations to assess water quality changes. There was no well discharge at this time and TDS values ranged from 222 mg/L to 1,301 mg/L. These highly variable levels of TDS within Segment 2102 demonstrate TDS levels can vary widely in Segment 2102. **Figure 1** below displays the annual averages for minimum, maximum, and average TDS values from 2012 to 2025 using all data sources.

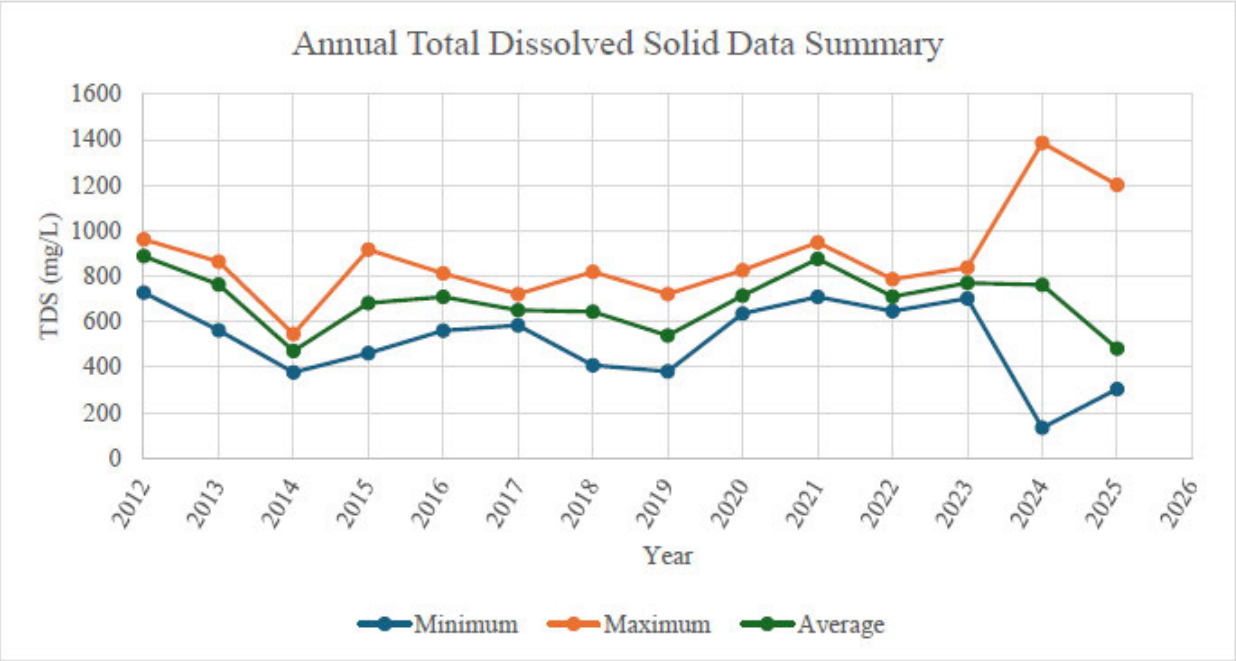

Figure 1
TDS Concentrations in the Nueces River, Segment 2102.
Figure produced by the City of Corpus Christi

1.2 PROPOSED WELLS

CCW is drilling eight wells adjacent to the Nueces River upstream of the ONSWTP intakes (**Figure 2**). Drilling and pump testing are complete for CCW – Well 1, CCW – Well 2, and CCW – Well 3. Initial samples of the groundwater in CCW wells 1 through 3 indicate TDS levels of 5,180 mg/L, 3,130 mg/L, and 3,660 mg/L respectively. CCW – Well 4 through CCW – Well 8 are currently in various stages of completion and will be sampled following 24-hour pump testing.

To assess the effect on river water quality that the well discharges may have, CCW staff sampled TDS across the width of the river and at the surface and near the bottom, upstream and downstream of a test CCW – Well 1 discharge. The river was sampled 6 meters (m) upstream of the discharge where TDS was 675 mg/L to 381 m downstream of the CCW – Well 1discharge location. CCW – Well 1 flow rate during this study was 1,100 gallons per minute with a TDS concentration of 5,020 mg/L before blending with the river. However, the highest recorded measurement of TDS in the Nueces River was 1,189 mg/L, occurring directly at the point of the well discharge at a depth of 1.2 m mid-river. Within 17 m downstream of the discharge, TDS levels stabilized at approximately 860 mg/L.

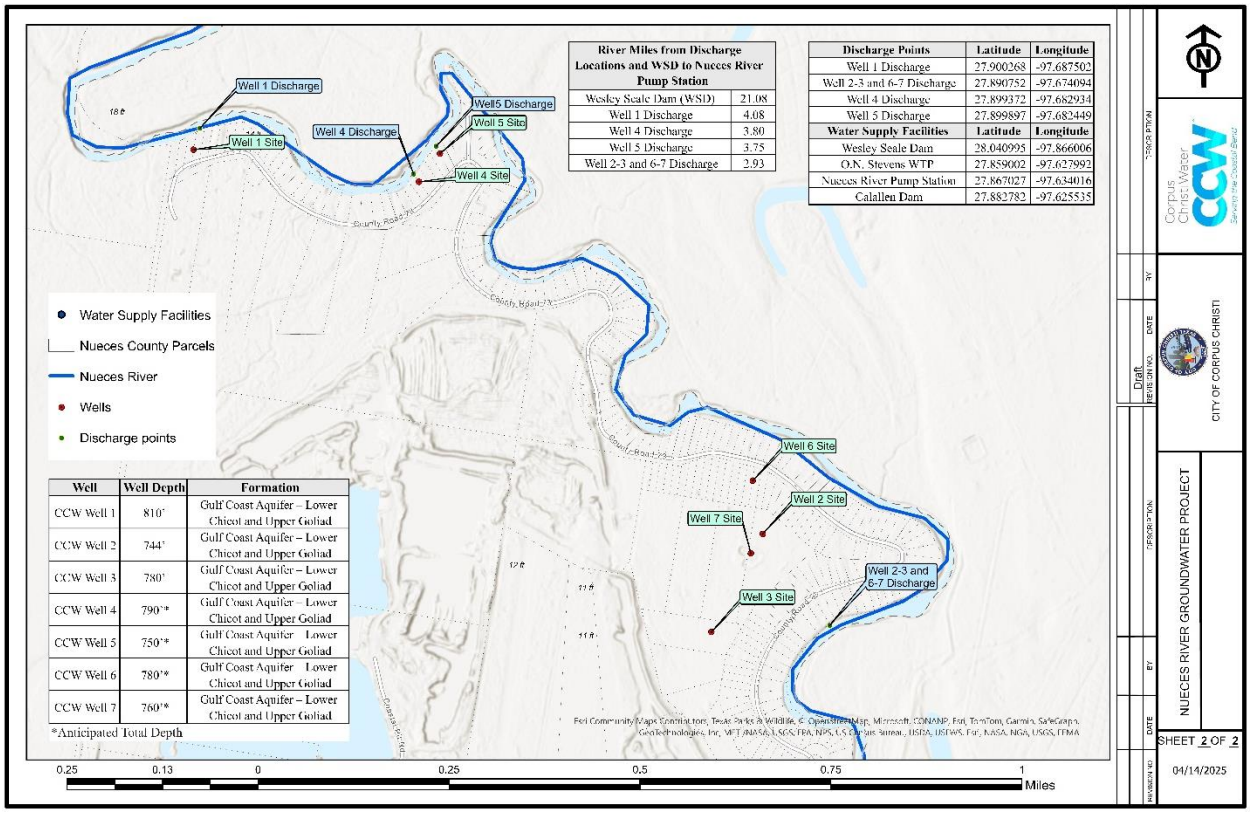

Figure 2
Locations of Groundwater Wells and Their Discharges to the Nueces River
Figure produced by the City of Corpus Christi

2.0 AQUATIC LIFE USE ASSESSMENT MONITORING LOCATIONS

ALU assessment monitoring is proposed for a 1,200 m long reach upstream from the boat ramp in Hazel Bazemore Park (**Figures 3, 4, and 5**). The Hazel Bazemore Park boat ramp is selected as the downstream end of the study reach because it is also a long-term surface water quality monitoring station, TCEQ Station ID 20936, for which water quality data are available from 2011 to 2025. The Nueces River Authority monitors water quality at this station.

A 1,200 m long reach was selected because TCEQ ALU assessment protocols indicate that a study reach of 40 to 100 times the stream width may be appropriate for assessing ALU in rivers (TCEQ, 2014). The Nueces River below the area of well discharges is about 30 m wide and does not exhibit large variations in width. Therefore a study reach length of 1,200 m (40 times an approximate width of 30 m) is proposed. The upstream end of the sampling reach is about 2.7 river miles downstream of the well discharges.

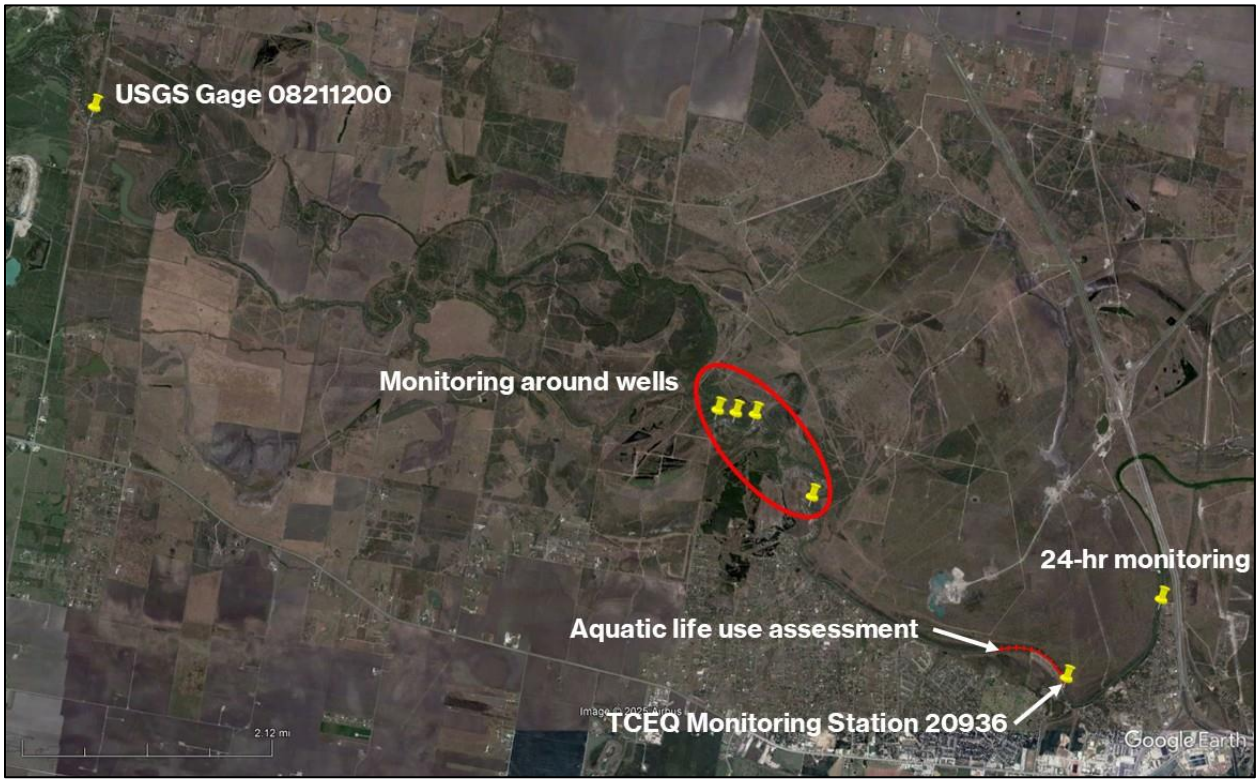

Figure 3

Study Area with all Monitoring Locations

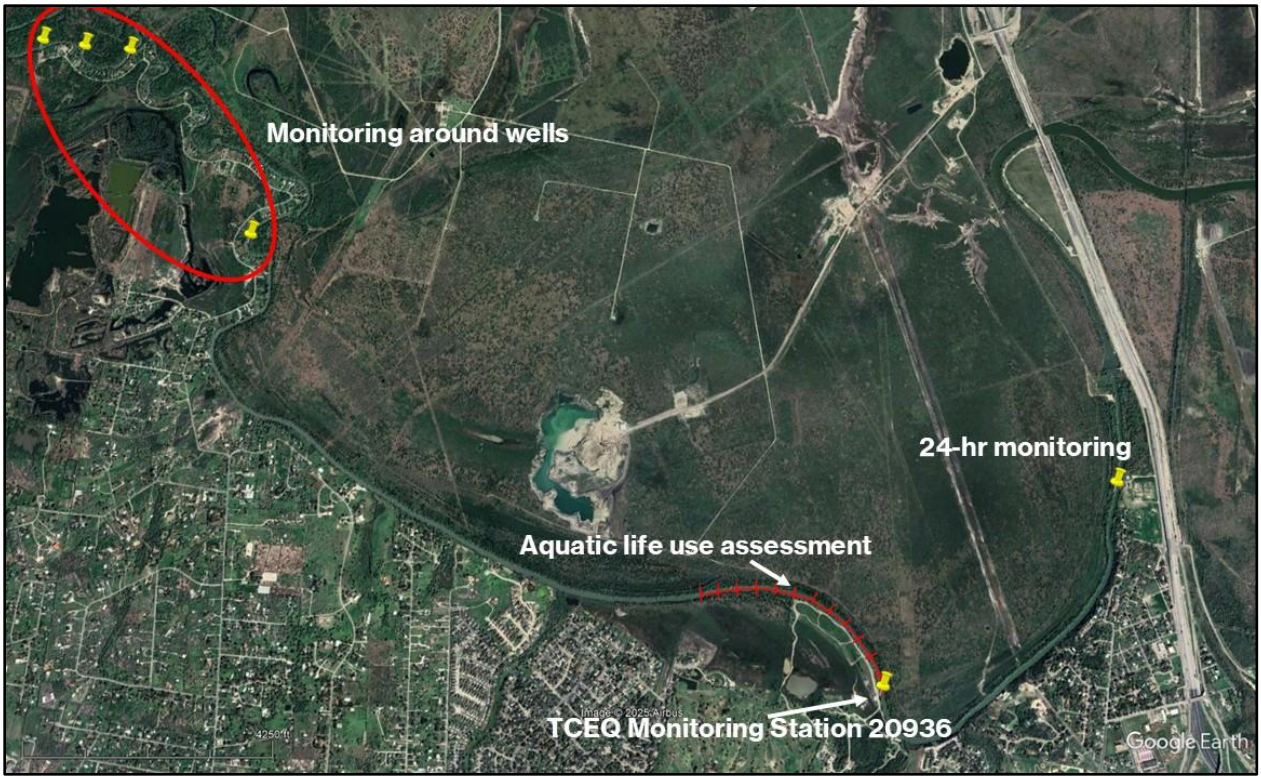

Figure 4

Study Area

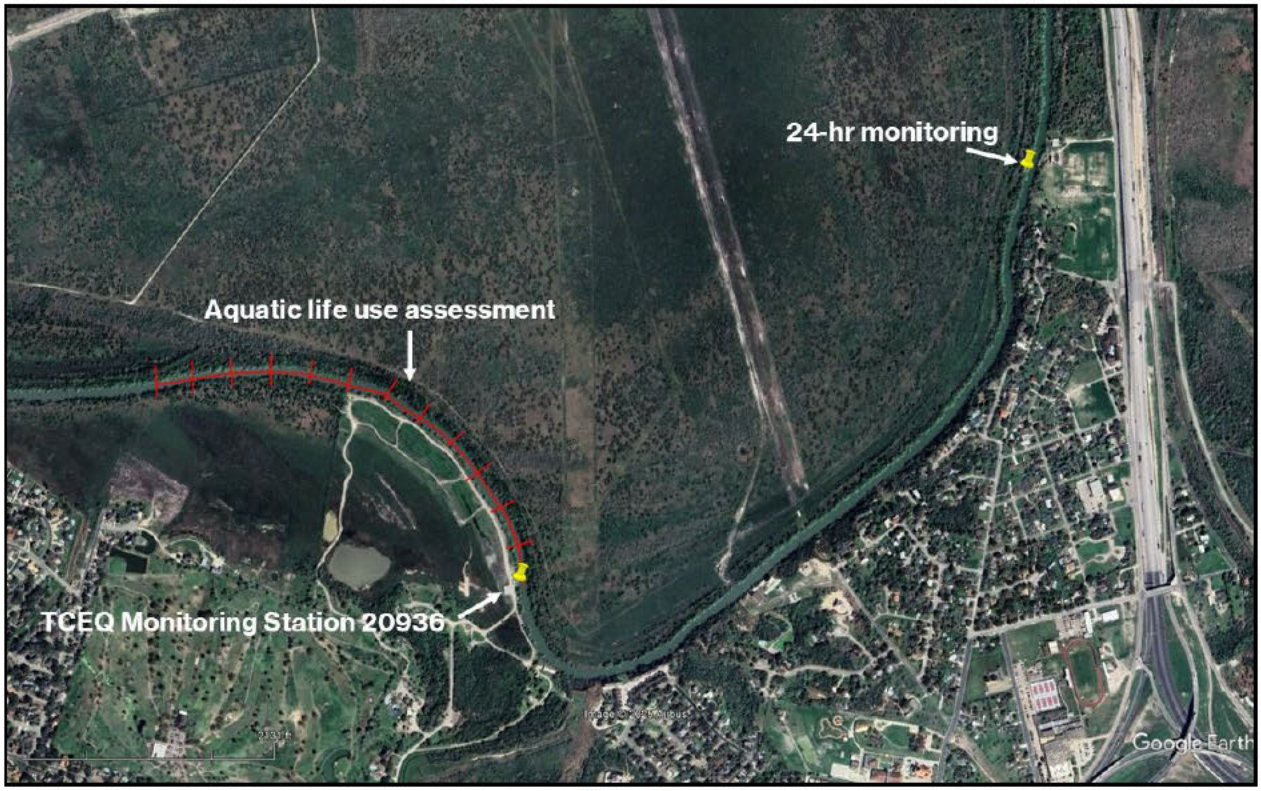

Figure 5

Aquatic Life Use Assessment Reach

The Nueces River in the study reach is not considered a wadeable stream and access to the study reach will be by boat. The study reach length may be modified if unexpected barriers to boat navigation are encountered during sampling.

2.1 HABITAT

Habitat measurements following TCEQ protocols (TCEQ, 2014) will be made at each of 12 transects across the river (**Figure 5**). Transects will be about 100 m apart and will be measured beginning 100 m upstream of the Hazel Bazemore Park boat ramp. The exact location of transects will be determined during the first sample event and locations of those transects will be recorded with GPS.

2.2 HYDROLOGY

The City and the U. S. Geological Survey operate a continuous monitoring station in the Nueces River (Nueces River at Bluntzer, TX, Gage 08211200) which monitors flow, pH, dissolved oxygen, rainfall, specific conductance, temperature, and turbidity and transmits those data at 15-minute intervals. This monitoring station is approximately 10 river miles upstream from the proposed discharge of

Well 1. Flow data will be obtained from the flow monitoring station on the river at Bluntzer. If conditions allow, flow will be measured at the upstream-most habitat transect (1,200 m upstream of the Hazel Bazemore Park boat ramp) and at the downstream-most transect (100 m upstream of the Hazel Bazemore Park boat ramp).

2.3 WATER QUALITY

CCW will deploy four continuous surface water monitoring multiparameter sondes (**Figures 3 and 4**). One sonde will be deployed approximately 30 m upstream of the CCW – Well 1 discharge to document TDS upstream of all well discharges. A second sonde will be positioned 15 m downstream of CCW – Well 1 discharge. The third sonde will be placed 15 m downstream of the CCW - Well 5 discharge, and the fourth sonde will be approximately 100m downstream of the discharge location for the furthest downstream well discharge. Each sonde will use a data logger and global cellular telemetry to transmit data.

Field water quality will also be obtained from the continuous monitoring station at Bluntzer. Field water quality will also be measured at the first, sixth, and twelfth habitat transects upstream of the Hazel Bazemore Park boat ramp.

24-hour monitoring of dissolved oxygen, temperature, pH, and specific conductance will be obtained from the ONSWTP intake on the river about 1.4 river miles downstream of the ALU study reach.

Water chemistry samples for laboratory analyses will be collected at TCEQ Station ID 20936 at Hazel Bazemore Park.

Nekton (fish, crabs, and shrimp) collections will be made in each type of mesohabitat using boat-mounted electrofishing. Review of available aerial imagery indicates there are not likely to be significant riffles, backwaters, or pools in the study reach. Consequently most sampling is expected to take place in runs, glides, and accumulations of woody debris. A minimum of 10 seine hauls will be made in the study reach with hauls in each type of mesohabitat. The location of each seine haul will be recorded with GPS.

A review of aerial imagery indicates the study reach may not have riffles or areas of gravel or cobble bottom that would be suitable for collection of benthic macroinvertebrates. It is expected that

benthic macroinvertebrates will be collected from woody debris snags. If samples are collected from snags, sampling will be conducted along the length of the sample reach and sample locations will be recorded using GPS (TCEQ, 2014).

3.0 METHODS

Sampling will be conducted following methods described in TCEQ surface water monitoring protocols for water quality, habitat, and biological sampling (TCEQ, 2012, TCEQ, 2014). Any deviations from these protocols that occur will be documented and explanations for the deviations will be provided.

3.1 HYDROLOGY

Flow data for the week preceding sampling and during the duration of field sampling will be obtained from the flow monitoring station on the river at Bluntzer. If conditions allow, flow will be measured at the upstream-most habitat transect (1,200 m upstream of the Hazel Bazemore Park boat ramp) and at the downstream-most transect (100 m upstream of the Hazel Bazemore Park boat ramp) with a SonTek M9 RiverSurveyor acoustic Doppler current profiler.

3.2 FIELD WATER QUALITY

Field water chemistry will be measured using calibrated multiparameter water quality meters and a cable allowing measurement to a depth of 15 feet. Meter maintenance, calibration, and operation will follow protocols in TCEQ's surface water monitoring protocols, Volume 1 (TCEQ, 2012). Field water quality measured at transects 1, 6, and 12 will be made at the middle of the channel, halfway between the middle of the channel and the right bank, and halfway between the middle of the channel and the left bank. At each measurement point, measurements will be made at a depth of 0.3 m and where depth is greater than 1.2 m, at mid-depth and at 0.3 m above the bottom.

Secchi disk transparency will be measured in the middle of the channel using a 20-centimeter-diameter Secchi disk lowered with a non-stretching chain or cord.

3.3 HABITAT CHARACTERIZATION

Habitat will be characterized using the tools and protocols described in Chapter 9, Physical Habitat of Aquatic Systems, in Volume 2 of TCEQ's surface water monitoring protocols (TCEQ, 2014). At each transect, the following measurements will be made:

- Stream width (m) with a tape measure
- Stream and thalweg depth (m) at 12 points, 11 equally spaced points and in the thalweg, with a stainless steel wading rod. Depth measurement may be made with an acoustic Doppler current profiler.
- Right and left bank slope (degrees) with an inclinometer
- Vegetative canopy cover (percent) with a densiometer
- Substrate composition: sampled with a pole or posthole digger
- Algae and macrophyte cover (absent, rare, common, or abundant): visual estimate by qualified professionals
- Riparian zone width: Measured in m for narrow riparian zones (<10 feet wide) and visually estimated from drone imagery for wider riparian zones
- Riparian zone vegetative cover: Visual estimate of the different types of vegetation in the riparian zone by qualified professionals
- Bank erosion (percent): visual estimate of vegetative cover or solid rock cover of the bank by qualified professionals
- Instream cover (percent): visual estimate by qualified professionals
- Dominant riparian cover: visual observations of different types of vegetative cover in the riparian zone by qualified professionals
- Four photographs will be taken at each transect from the middle of the channel – one upstream, one downstream, one of the left bank, and one of the right bank
- Drone imagery will be collected of the sampling reach if conditions permit drone flights

3.4 NEKTON SAMPLING

All biological sampling will be conducted under Texas Parks and Wildlife Department scientific collection permit 1006-756 issued to Andrew Labay. Nekton sampling will follow TCEQ protocols in Chapter 3, Freshwater Fish (TCEQ, 2014). Estuarine species like blue crabs, *Callinectes sapidus*, are

known to be found in this part of the Nueces River. Crabs, shrimp and other large invertebrates collected by these sampling methods will be included in the analysis.

Nekton will be sampled using a boat-mounted electrofisher and seines. Each type of mesohabitat will be sampled by both methods. Electrofishing will take place for a minimum of 30 minutes of actual electrofisher operation. An attempt will be made to distribute electrofishing time approximately equally between mesohabitat types and portions of the study reach. Seining will be conducted with a seine that is 9 m long, 1.8 m high, and has a 0.6 cm mesh. Seining may be limited to the areas adjacent to the shore because water may be too deep to seine in much of the river channel.

All fish, crabs, and other large invertebrates observed will be collected, identified to species, and counted. Observations of individuals with physical deformities, lesions, or obvious parasite infections will be recorded. Representatives of species with smaller individuals, ex. minnows, will be vouchered in 10% formalin and retained by FNI for five years. Representatives of larger species, ex. Largemouth Bass, will be vouchered with photographs.

3.5 BENTHIC MACROINVERTEBRATES

Benthic macroinvertebrate sampling will follow TCEQ protocols in Chapter 5, Freshwater Benthic Macroinvertebrates (TCEQ, 2014). Reconnaissance will be conducted during the first sample trip to locate any riffles or accumulations of gravel and/or cobble that could be sampled with a kicknet with 0.5 millimeter mesh. If a suitable location to sample benthic macroinvertebrates with a kicknet is not identified, benthic macroinvertebrates will be collected from woody debris, leaf litter, or submerged vegetation. Samples will be analyzed by a biologist experienced in the identification of Texas freshwater benthic macroinvertebrates. Voucher specimens from each sample will be retained by FNI for five years.

Sampling will not be conducted for freshwater mussels; however, if live or dead mussels are observed, they will be identified, and voucher photos will be collected of representatives of each species.

3.6 WATER CHEMISTRY

Water samples for laboratory analysis will be collected once during each sample event at the surface water quality monitoring station at Hazel Bazemore Park boat ramp following protocols in chapters 4, Collecting and Analyzing Bacteriological Samples, and 5, Collecting Water Samples, in TCEQ protocols for surface water quality sampling (TCEQ, 2012).

Samples will be analyzed for alkalinity, chlorides, sulfates, total dissolved solids, total suspended solids, volatile suspended solids, total ammonia nitrogen, total Kjeldahl nitrogen, nitrite nitrogen, nitrate nitrogen, total phosphorus, total organic carbon, *E. coli*, chlorophyll α, and pheophytin α in a NELAP-certified laboratory. Observation data typically collected by the routine surface monitoring program including: air temperature, present weather, flow severity, water odor, turbidity, water color, wind direction, precipitation in past 24 hours, days since last rainfall, water surface condition, water depth at sample point, rainfall in past 7 days, and stream flow estimate, will be recorded.

4.0 FREQUENCY AND TIMING

Two sample events will take place in 2025. One sample event will be conducted before June 30, 2025. The second sample event will take place between July 1 and August 30. The second sample event will be at least 30 days after the first sample event. Sampling will be conducted when flow at the USGS gage at Bluntzer is at or below the median flow. Sampling will not be conducted when the river has experienced recent major flooding.

5.0 REPORTING

Electronic copies of all field and lab data sheets will be retained. Photographs and drone imagery will also be retained.

A draft report will be provided to the City by December 31, 2025. The draft report will include the following:

- Map figure(s) illustrating all sample sites. This may be accompanied by selected photographs of sample locations
- Description of sampling methods used
- Tables of all data collected

- Calculated Index of Biotic Integrity (IBI) for the nekton collected in each sample event. The sampling reach is in Level 4 Ecoregion 34c, Flood Plains and Low Terraces of the Western Gulf Coastal Plain (TCEQ, 2014). TCEQ has identified an IBI for the Level 3 Ecoregion, the Western Gulf Coastal Plain (TCEQ, 2014). Although an IBI can be calculated, the reader should be aware that the Western Gulf Coastal Plain IBI was developed from limited sampling from relatively small wadeable streams, none of which were in the Nueces River basin (Linam et al., 2002).
- Calculated IBIs for the benthic macroinvertebrates collected in each sample event. One IBI will be calculated based on the statewide IBI and a second IBI will be calculated based on the IBI for the Western Gulf Coastal Plain. Although IBIs can be calculated, the reader should be aware that these IBIs were developed from limited data from relatively small wadeable streams and from samples collected with kicknets. Kicknet sampling is not expected in the Nueces River study reach.
- Calculated Habitat Quality Index.
- Summary of relevant antecedent conditions, ex. rainfall, changes in flow, extreme heat, etc.
- Summary of observations relevant to understanding the habitat, nekton, and benthic macroinvertebrate community and factors affecting those communities.

6.0 REFERENCES

Linam, G.W., Kleinsasser, L.J. and Mayes K.B. 2002. Regionalization of the index of biotic integrity for Texas streams. Texas Parks and Wildlife Department, Resource Protection Division. Austin, Texas. 140 pp.

Texas Commission on Environmental Quality (TCEQ). 2012. Surface Water Quality Monitoring Procedures, Volume 1: Physical and Chemical Monitoring Methods for Water, Sediment, and Tissue. RG-415.

_____. 2014. Surface Water Quality Monitoring Procedures, Volume 2: Methods for Collecting and Analyzing Biological Assemblage and Habitat Data. Texas Commission on Environmental Quality RG-416. 202 pp.

_____.2022. Texas Surface Water Quality Standards. §§307.1 – 307.10. Accessed online on May 29, 2025.

_____.2024a. Texas Integrated Report of Surface Water Quality for the Clean Water Act Sections 305(b) and 303(d)- Assessment Results for 2024 Texas Integrated Report - Assessment Results for Basin 21 - Nueces River. Accessed online on May 29, 2025.

_____.2024b. 2024 Guidance for Assessing and Reporting Surface Water Quality in Texas. TCEQ SFR-127. 203 pp. Accessed online on May 29, 2025.

Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

☒ New Permit or Registration Application

☐ New Activity – modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

☐ Requires public notice,

☐ Considered to have significant public interest, **and**

☐ Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

If all the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2 and submit the form.

☐ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)

- ☐ Texas Land Application Permit (TLAP)
- ☐ State Only Concentrated Animal Feeding Operation (CAFO)
- ☐ Water Treatment Plant Residuals Disposal Permit

☐ Class B Biosolids Land Application Permit

☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water

☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water

☐ Add a New or Existing Reservoir

☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

(City)

(County)

(Census Tract)
Please indicate which of these three is the level used for gathering the following information.

☐ City ☐ County ☐ Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

(b) Per capita income for population near the specified location

(c) Percent of minority population and percent of population by race within the specified location

(d) Percent of Linguistically Isolated Households by language within the specified location

(e) Languages commonly spoken in area by percentage

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☐ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☐ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☐ Yes ☐ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☐ Yes ☐ No

(e) If a public meeting is held, will a translator be provided if requested?

☐ Yes ☐ No

(f) Hard copies of the application will be available at the following (check all that apply):

☐ TCEQ Regional Office ☐ TCEQ Central Office

☐ Public Place (specify)

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

Sarah Henderson

From: Sarah Henderson
Sent: Thursday, May 15, 2025 1:20 PM
To: [redacted]
Subject: City of Corpus Christi Temporary Water Use Permit Application No. 14124
Attachments: City of Corpus Christi_WRTP 14124_RFI_15May2025.pdf

Mr. Ramos,
Please find the attached letter requesting additional information.
A response is due June 16, 2025.
Sincerely,
Sarah

Sarah Henderson
Water Rights Permitting Team
Water Availability Division
Texas Commission on Environmental Quality
P.O. Box 13087/MC-160
Austin, TX 78711-3087
(P) 512.239.2535
(F) 512.239.4770

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 15, 2025

Mr. Esteban Ramos, Water Resources Manager **VIA E-MAIL**
City of Corpus Christi, Corpus Christi Water
2726 Holly Road
Corpus Christi, TX 78415-4112

RE: City of Corpus Christi
WRTP 14124
CN600131858, RN112211776
Application No. 14124 for a Temporary Water Use Permit
Texas Water Code §§ 11.138, 11.042, Requiring Limited Mailed Notice
Nueces River, Nueces River Basin
Nueces County

Dear Mr. Ramos:

This acknowledges receipt, on May 12, 2025, of the referenced application and fees in the amount of $273.88 (Receipt No. M557458, copy attached).

Additional information is required before the application can be declared administratively complete.

1. Provide a USGS 7.5-minute topographic map (or equivalent) with the locations of all discharge points clearly marked. The maps submitted with the application are inconsistent with the information provided in Addendum No. 1.

2. Provide an assessment of the adequacy of the quantity and quality of flows remaining after the proposed diversion to meet instream uses and bay and estuary freshwater inflow needs. (Worksheet 4.0 Item 1.a.)

3. Provide an Aquatic Life Monitoring plan (ALM) that provides supporting information for the proposed action levels in the proposed Groundwater Monitoring Plan and documents the current Aquatic Life Use of Segment 2102 (Nueces River Below Lake Corpus Christi) prior to initiation of groundwater discharges and during the term of any permit granted for the application. The ALM plan must describe pre-project monitoring and biannual monitoring in accordance with the most recently approved *TCEQ's Surface Water Quality Monitoring Procedures*.

Please provide the requested information by June 16, 2025, or the application may be returned pursuant to Title 30 Texas Administrative Code § 281.18.

Staff notes that the following additional information will be needed prior to completion of technical review.

1. Provide a revised *Public Involvement Plan Form for Permit and Registration Applications* (TCEQ-20960) indicating the correct notice for the application.

We would be happy to meet with you to discuss the requested information. If you have any questions concerning this matter, or would like to schedule a meeting, please contact me via e-mail at Sarah.Henderson@tceq.texas.gov or by telephone at (512) 239-2535.

Sincerely,

Sarah Henderson

Sarah Henderson, Project Manager
Water Rights Permitting Team
Water Rights Permitting and Availability Section

Attachment

TCEQ 13-MAY-25 09:27 AM

TCEQ - A/R RECEIPT REPORT BY ACCOUNT NUMBER

Fee Description	Fee Code / Account# / Account Name	Ref#1 / Ref#2 / Paid In By	Check Number / Card Auth. / User Data	CC Type / Tran Code / Rec Code	Slip Key / Document#	Tran Date	Tran Amount
WTR USE PERMITS	WUP	M557456	1010262120		BS00115406	13-MAY-25	-$257.52
	WUP	13954	051325	N	D5802870		
	WATER USE PERMITS	VISTRA OPERATIONS COMPANY LLC	VTORREZ	CK			
	WUP	M557457	2655		BS00115406	13-MAY-25	-$125.00
	WUP		051325	N	D5802870		
	WATER USE PERMITS	MCCARTHY & MCCARTHY LLP	VTORREZ	CK			
	WUP	M557458	553083		BS00115406	13-MAY-25	-$273.88
	WUP		051325	N	D5802870		
	WATER USE PERMITS	CORPUS CHRISTI, CITY OF	VTORREZ	CK			
				Total (Fee Code):			-$656.40

RECEIVED
MAY 13 2025
Water Availability Division

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

TEMPORARY WATER RIGHTS PERMIT APPLICATION

Application for a temporary water use permit for more than 10 acre-feet of water and/or for a diversion period longer than one calendar year but not exceeding three years or for a temporary bed and banks authorization.

This form may be used for an application for a temporary water use permit to divert state water under Section 11.138, Texas Water Code. Any permit granted by this application may be suspended at any time by the applicable TCEQ Office if it is determined that sufficient water is no longer available.

This form may also be used for a temporary bed and banks authorization.

Applicants are REQUIRED to schedule a pre-application meeting with TCEQ Staff to discuss Applicant's needs prior to submitting an application. Call the Water Rights Permitting Team of the Water Availability Division to schedule a meeting at (512) 239-4600.

Date of pre-application meeting: 3/3/25 and 4/2/25

Indicate whether the following items are included in your application by writing either Y (for yes) or N (for no) next to each item (all items are not required for every application). Instructions, Page 5.

Y/N		Y/N	
Y	**Administrative Information**	Y	**Worksheet 3.0**
N	Additional Co-Applicant Information	N	Ground Water Well Permit
N	Additional Co-Applicant Signatures	N	Signed Water Supply Contract
Y	Written Evidence of Signature Authority	Y	**Worksheet 3.1**
Y	**USGS Map (or equivalent)**	Y	**Worksheet 4.0**
Y	**Worksheet 1.0**	Y	**Worksheet 5.0**
N	Recorded Deeds for Irrigated Land	Y	Accounting Plan
N	Consent for Irrigated Land	Y	**Worksheet 6.0**
N	**Worksheet 1.1**	Y	**Fees**
Y	**Worksheet 2.0**		
N	Additional W.S. 2.0 for each Point		
N	Recorded Deeds for Diversion Point(s)		
N	Consent for Diversion Access		

RECEIVED
MAY 12 2025
Water Availability Division

ADMINISTRATIVE INFORMATION

1. TYPE OF APPLICATION (Instructions, Page 6)

Indicate, by marking **X**, next to the following authorizations you are seeking.

____Temporary Appropriation of State Water

__X__Temporary Bed and Banks Authorization

Please summarize the authorizations you are seeking in the space below or attach a narrative description entitled "Summary of Request."

Applicant, City of Corpus Christi (City), proposes, due to the ongoing drought as recognized by the December 23, 2024, January 22, 2025, and February 21, 2025 Governor Abbott disaster drought declarations, to divert groundwater into the Nueces River below Lake Corpus Christi and to subsequently redivert this water from the Nueces River. The City proposes to discharge a maximum of 15,680 acre-feet of groundwater annually and redivert said waters (minus 7% carriage losses on the groundwater discharged) for a period of three years. The 7% carriage loss was based on the HDR Engineering, Inc. Trans-Texas Water Program September, 1995 study. The discharged water will be diverted at the location(s) on Calallen Reservoir and rate specified in the City's existing water right (CA-21-2464, as amended). No increase in the authorized diversion rate is requested. The water will be used for municipal purposes.

2. APPLICANT INFORMATION (Instructions, Page 6)

Indicate the number of Applicants/Co-Applicants 1
(Include a copy of this section for each Co-Applicant, if any)

What is the Full Legal Name of the individual or entity (applicant) applying for this permit?
City of Corpus Christi, Texas

(If the Applicant is an entity, the legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal documents forming the entity.)

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch

CN : 600131858 (leave blank if you do not yet have a CN).

What is the name and title of the person or persons signing the application?

First/Last Name: Peter Zanoni

Title: City Manager, City of Corpus Christi

Unless an application is signed by an individual applicant, the person or persons must submit written evidence that they meet the signatory requirements in Title 30, Texas Administrative Code (30 TAC), Section 295.14.

Have you provided written evidence meeting the signatory requirements in 30 TAC Section 295.14, as an attachment to this application? **Y/N** Y

What is the applicant's mailing address as recognized by the US Postal Service (USPS)? You may verify the address on the USPS website at ***Look Up a ZIP Code*** tools.usps.com/go/ZipLookupAction!input.action.

Name: City of Corpus Christi

Mailing Address: 1201 Leopard Street

City: Corpus Christi State: TX ZIP Code: 78401

Indicate an X next to the type of Applicant:

___Individual	___Sole Proprietorship-D.B.A.
___Partnership	___Corporation
___Trust	___Estate
___Federal Government	___State Government
___County Government	X City Government
___Other Government	___Other_____

For Corporations or Limited Partnerships, provide:
State Franchise Tax ID Number: _____SOS Charter (filing) Number: _____

3. APPLICATION CONTACT INFORMATION (Instructions, Page 8)

If the TCEQ needs additional information during the review of the application, who should be contacted? Applicant may submit their own contact information if Applicant wishes to be the point of contact.

First and Last Name: Esteban Ramos

Title: Water Resources Manager

Organization Name: City of Corpus Christi, Corpus Christi Water

Mailing Address: 2726 Holly Road

City: Corpus Christi State: TX ZIP Code: 78415

Phone Number: 361-826-3294

Fax Number:

E-mail Address: [redacted]

4. MISCELLANEOUS INFORMATION (Instructions, Page 9)

a. The application will not be processed unless all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ are paid in accordance with the Delinquent Fee and Penalty Protocol by all applicants/co-applicants. If you need assistance determining whether you owe delinquent penalties or fees, please call the Water Rights Permitting Team at (512) 239-4600, prior to submitting your application.

1. Does Applicant or Co-Applicant owe any fees to the TCEQ? **Yes / No** N

   If **yes,** provide the following information:

   Account number: _____ Amount past due: _____

2. Does Applicant or Co-Applicant owe any penalties to the TCEQ? **Yes / No** N

   If **yes,** please provide the following information:

   Enforcement order number: _____ Amount past due: _____

b. If the Applicant is a taxable entity (corporation or limited partnership), the Applicant must be in good standing with the Comptroller or the right of the entity to transact business in the State may be forfeited. See Texas Tax Code, Subchapter F. Applicant's may check their status with the Comptroller at mycpa.cpa.state.tx.us/coa/

   Is the Applicant or Co-Applicant in good standing with the Comptroller? **Yes / No** Y

c. The commission will not grant an application for a water right unless the applicant has submitted all Texas Water Development Board (TWDB) surveys of groundwater and surface water use-if required. See TWC Section 16.012(m) and 30 TAC Section 297.41(a)(5). Applicants should check survey status on the TWDB website prior to filing: www3.twdb.texas.gov/apps/reports/WU/SurveyStatus_PriorThreeYears

   Applicant has submitted all required TWDB surveys of groundwater and surface water? **Yes / No** Y

5. SIGNATURE PAGE (Instructions, Page 10)

Applicant:

I, Drew Molly Chief Operating Officer

(Typed or printed name) (Title)

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under Title 30 Texas Administrative Code Section 295.14 to sign and submit this document and I have submitted written evidence of my signature authority.

Signature: _____ Date: 5/9/25

(Use blue ink)

Subscribed and Sworn to before me by the said

on this 9th day of May, 2025.

My commission expires on the 16th day of March, 2026

Martha Vazquez

Notary Public

[SEAL]

MARTHA VAZQUEZ
Notary ID #128028579
My Commission Expires
March 16, 2026

Nueces County, Texas

If the Application includes Co-Applicants, each Applicant and Co-Applicant must submit an original, separate signature page.

TECHNICAL INFORMATION

1. TYPE OF REQUEST (Instructions, Page 11)

State Water is: *The water of the ordinary flow, underflow, and tides of every flowing river, natural stream, and lake, and of every bay or arm of the Gulf of Mexico, and the storm water, floodwater, and rainwater of every river, natural stream, canyon, ravine, depression, and watershed in the state. TWC Section 11.021.*

Applicant requests a new temporary appropriation of State Water? **Y / N** N

If Applicant answered yes, the following information is required:

- **Worksheet 1.0 – Quantity, Purpose, and Place of Use Information Worksheet**
- **Worksheet 2.0 - Diversion Point Information Worksheet** (submit one worksheet for each diversion point and/or one worksheet for the upstream limit and one worksheet for the downstream limit of each diversion reach requested in the application)
- **Worksheet 6.0– Calculation of Fees**
- **Fees calculated on Worksheet 6.0**
- **Maps** – See instructions **Page. 13**

Applicant requests a temporary bed and banks authorization? (Water sources may include groundwater, contract water, or other sources). **Y/N** Y

If Applicant answered yes, the following information is required:

- **Worksheet 1.0 - Quantity, Purpose, and Place of Use Information Worksheet**
- **Worksheet 2.0 - Diversion Point Information Worksheet** (submit one worksheet for each diversion point and/or one worksheet for the upstream limit and one worksheet for the downstream limit of each diversion reach requested in the application)
- **Worksheet 3.0 - Discharge Information Worksheet** (submit one worksheet for each discharge point)
- **Worksheet 4.0 - Environmental Information Worksheet**
- **Worksheet 5.0 - Accounting Plan Information Worksheet**
- **Worksheet 6.0 - Calculation of Fees**
- **Fees calculated on Worksheet 6.0**
- **Maps** – See instructions **Page. 13**

2. BED AND BANKS. TWC Section 11.042 (Instructions, Page 11)

a. Pursuant to contract, Applicant requests authorization to convey stored or conserved water to the place of use or diversion point of purchaser(s) using the bed and banks of a watercourse? TWC Section 11.042(a). **Y/N** N

If yes, submit a signed copy of the Water Supply Contract pursuant to 30 TAC Sections 295.101 and 297.101. Further, if the underlying Permit or Authorization upon which the Contract is based does not authorize Purchaser's requested Quantity, Purpose or Place of Use, or Purchaser's diversion point(s), then either:

1. *Purchaser must submit the required worksheets for a request for a temporary bed and banks application with the Contract Water identified as an alternate source; or*
2. *Seller must amend its underlying water right. For more information about amending a water right, please contact the Water Rights Permitting Team at (512) 239-4600.*

b. Applicant requests to convey Applicant's own return flows derived from privately owned groundwater using the bed and banks of a watercourse? TWC § 11.042(b). **Y / N** N

c. Applicant requests to convey water from any other source, other than (a) or (b) above, using the bed and banks of a watercourse? TWC Section 11.042(c).**Y / N** Y

WORKSHEET 1.0

Quantity, Purpose, and Place of Use

1. New Temporary Authorizations (Instructions, Page 13)

Submit the following information regarding quantity, purpose and place of use for requests for a temporary appropriation of State Water or temporary Bed and Banks authorization:

Quantity (acre-feet) *(Include losses for Bed and Banks)*	**State Water Source (River Basin) or Alternate Source** *each *alternate source also requires completion of Worksheet 3.0*	**Purpose(s) of Use**	**Place(s) of Use** **requests to move state water out of basin also require completion of Worksheet 1.1 Interbasin Transfer*
15,680	Groundwater	Municipal	As authorized in CA-21-2464A

15,680 Total amount of water in acre-feet (*include losses for Bed and Banks applications*) to be used within a period of 3 years. (specify term period not to exceed a three year term)

If the Purpose of Use is Agricultural/Irrigation for any amount of water, provide:

a. Location Information Regarding the Lands to be Irrigated

i. Applicant proposes to irrigate a total of N/A acres in any one year. This acreage is all of or part of a larger tract(s) which is described in a supplement attached to this application and contains a total of N/A acres in N/A County, TX.

ii. Location of land to be irrigated: In the N/A Original Survey No. _____, Abstract No. _____.

A copy of the deed(s) or other acceptable instrument describing the overall tract(s) with the recording information from the county records must be submitted. Applicant's name must match deeds.

If the Applicant is not currently the sole owner of the lands to be irrigated, Applicant must submit documentation evidencing consent or other documentation supporting Applicant's right to use the land described.

WORKSHEET 1.1

INTERBASIN TRANSFERS, TWC Section 11.085

1. Interbasin Transfer Request (Instructions, Page 15)

Only interbasin transfers that meet certain criteria for exemption as identified in TWC Section 11.085(v) can be authorized under a temporary water right permit. Submit the information below for an application for a temporary water right which requests to transfer State Water from its river basin of origin for use in a different river basin. A river basin is defined and designated by the Texas Water Development Board by rule pursuant to TWC Section 16.051.

a. Applicant requests to transfer State Water to another river basin within the State? **Y / N** N

If yes, provide the following information:

i. Basin of Origin_____

ii. Quantity of water to be transferred (acre-feet) _____

iii. Basin(s) and count(y/ies) where use will occur in the space below:

_____

b. The proposed transfer, which in combination with any existing transfers, totals less than 3,000 acre-feet of water per annum from the same water right. **Y/N** _____

c. The proposed transfer is from a basin to an adjoining coastal basin? **Y/N**___

d. The proposed transfer from the part of the geographic area of a county or municipality, or the part of the retail service area of a retail public utility as defined by TWC Section 13.002, that is within the basin of origin for use in that part of the geographic area of the county or municipality, or that contiguous part of the retail service area of the utility, not within the basin of origin? **Y/N**_____

WORKSHEET 2.0

DIVERSION POINT (OR DIVERSION REACH) INFORMATION

This information **is required** for each diversion point or diversion reach. Submit a worksheet for **each** diversion point. For a reach, the worksheet should be submitted twice (one for the upstream limit and one for the downstream limit of each diversion reach).

The numbering of any points or reach limits should be consistent throughout the application and on supplemental documents (e.g., maps).

1. Diversion Information (Instructions, Page 16)

a. This Worksheet is to add new (select 1 of 3 below):

1. ☐ Diversion Point No. N/A
2. ☐ Upstream Limit of Diversion Reach No. _____
3. ☐ Downstream Limit of Diversion Reach No. _____

b. Maximum Rate of Diversion for **this new point** _____ cfs (cubic feet per second) or ___ gpm (gallons per minute)

c. Does this point share a diversion rate with other points? **Y / N** _____
*If yes, submit Maximum **Combined** Rate of Diversion for all points/reaches*
_____ *cfs or* _____ *gpm*

d. Has the applicant received a temporary application from a TCEQ Regional or Watermaster office for this diversion point? **Y/N** N

1. If **yes**, provide the date the application was issued _____ and write **Existing** in the table below.
2. If **no**, write **Proposed** in the table below.

e. Select the appropriate box to indicate diversion location and indicate whether the diversion location is existing or proposed):

Check one		Write: Existing or Proposed
☐	Directly from stream	
☑	From an on-channel reservoir	Existing and authorized under CA-21-2464 (as amended)
☐	From a stream to an on-channel reservoir	
☐	Other method (explain fully, use additional sheets if necessary)	

f. Is the diversion from a reservoir? **Y/N** Y

1. Was it constructed to be an exempt structure under TWC Section 11.142? **Y / N** N
   i. If no, has the structure been issued a notice of violation by TCEQ? **Y / N** N
2. Is the reservoir already authorized under a water right? **Y/N** Y
   If yes, provide the following information:
   i. Water Right Number 21-2464 (as amended)
   ii. If the applicant is not the water right holder, has consent been provided to the applicant by the water right holder pursuant to 30 TAC Section 295.10? **Y/N** N/A

g. Indicate the measures the applicant will take to avoid impingement and entrainment of aquatic organisms (ex. Screens on any new diversion structure that is not currently authorized under a water right).

Applicant uses a screen on the diversion pump to prevent entrainment of aquatic species. These diversions points are already permitted for the City of Corpus Christi. They can be identified as Facility S1780003A: Intake 1 - North Nueces and Facility S1780003B: Intake 2 – South Nueces. These are their official IDs.

2. Diversion Location (Instructions, Page 17)

a. On watercourse (USGS name): Nueces River See Addendum 3 for additional information

b. Zip Code: 78410

c. Location of point: In the CA_21-2464 (as amended) Original Survey No. _____ , Abstract No. _____, see addendum 3 _____ County, Texas.

A copy of the deed(s) with the recording information from the county records must be submitted describing tract(s) that include the diversion structure.

For diversion reaches, the Commission cannot grant an Applicant access to property that the Applicant does not own or have consent or a legal right to access, the Applicant will be required to provide deeds, or consent, or other documents supporting a legal right to use the specific points when specific diversion points within the reach are utilized. Other documents may include, but are not limited to a recorded easement, a land lease, a contract, or a citation to the Applicant's right to exercise eminent domain to acquire access.

d. Point is at:

Latitude 27.867571 °N, Longitude -97.633179 °W.

Provide Latitude and Longitude coordinates in decimal degrees to at least six decimal places

e. Indicate the method used to calculate the location (examples: Handheld GPS Device, GIS, Mapping Program): Google earth and hand held site device

f. Map submitted must clearly identify each diversion point and/or reach. Does the application include required maps? (Instructions, Page 13) **Y/N** Y

WORKSHEET 3.0

DISCHARGE INFORMATION

This information is required for any requested authorization to use the bed and banks of a State watercourse for conveyance and later withdrawal or in-place use. Worksheet 3.1 is also required for each Discharge point location requested. **Instructions, Page. 18.**

Applicant is responsible for obtaining any separate water quality authorizations which may be required and for insuring compliance with TWC, Chapter 26 or any other applicable law.

a. The purpose of use for the water being discharged will be Municipal.

b. Provide the amount of water that will be lost to transportation, evaporation, seepage, channel, or other associated carriage losses 7% (% or amount).

1. Explain the method of calculation: HDR Engineering, Inc. Trans-Texas Water Program September 1995 Study

c. Is the source of the water being discharged groundwater? **Y / N** Y If yes, provide the following information:

1. Source aquifer(s) from which water will be pumped: Lower Chicot and Upper Goliad formations Gulf Coast Aquifer

2. If the well has not been constructed, provide production information for wells in the same aquifer in the area of the application. See www.twdb.texas.gov/groundwater/data/gwdbrpt.asp. Additionally, provide well numbers or identifiers

See Addendum 1

3. Indicate how the groundwater will be conveyed to the stream or reservoir.

The groundwater will be conveyed via a pipeline to the Nueces River. The discharge will flow from the pipeline to a channel with rocks prior to entering the Nueces River. Installing the rock areas prior to discharge will ensure the dissolve oxygen levels have a chance to increase before flowing into the river. It will also help ensure filtration and reduce the possibility of bank erosion. Well 1 will discharge over 22 feet of rock prior to entering the river. The well field for wells 2-5 will have a 100 feet of rock prior to entering the river.

4. Is the groundwater well located in a Groundwater District (GCD)? **Y/N** N

If yes, provide a copy of the groundwater well permit if it is located in a Groundwater Conservation District (GCD) or evidence that a groundwater well permit is not required.

ci. Is the source of the water being discharged a surface water supply contract? **Y / N** N

If yes, provide the signed contract(s).

cii. Identify any other source of the water None

WORKSHEET 3.1

DISCHARGE POINT INFORMATION

This information is required for **each** discharge point. Submit one worksheet for **each** discharge point. If there is more than one discharge point, the numbering of the points should be consistent throughout the application and on any supplemental documents (e.g., maps). **Instructions, Page 19.**

For water discharged at this location provide:

a. The amount of water that will be discharged at this point is _____ acre-feet per year. The discharged amount should include the amount needed for use and to compensate for any losses.

b. Water will be discharged at this point at a maximum rate of Addendum 1 cfs or _____ gpm.

c. Name of Watercourse as shown on Official USGS maps: Addendum 1

d. Zip Code Addendum 1

e. Location of point: In the Addendum 1 Original Survey No. _____ Abstract No. _____, _____ County, Texas.

f. Point is at:

Latitude Addendum 1 °N, Longitude Addendum 1 °W.

Provide Latitude and Longitude coordinates in decimal degrees to at least six decimal places

g. Indicate the method used to calculate the discharge point location (examples: Handheld GPS Device, GIS, Mapping Program): Addendum 1

h. Map submitted must clearly identify each discharge point. Does the application include required maps? (Instructions, Page. 13) **Y/N** Addendum 1

WORKSHEET 4.0

ENVIRONMENTAL INFORMATION

1. Bed and Banks Applications

This information is required for bed and banks applications. **Instructions, Page 20.**

a. Submit an assessment of the adequacy of the quantity and quality of flows remaining after the proposed diversion to meet instream uses and bay and estuary freshwater inflow requirements.

b. If groundwater and/or other surface water will be discharged into a watercourse provide:

Reasonably current water chemistry information including but not limited to the following parameters in the table below. Additional parameters may be requested if there is a specific water quality concern associated with the aquifer from which water is withdrawn. If data for onsite wells are unavailable; historical data collected from similar sized wells drawing water from the same aquifer may be provided. However, onsite data may still be required when it becomes available. Provide the well number or well identifier. Complete the information below for each well and provide the Well Number or identifier. See Attachment 4 for additional information

Parameter	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Sulfate, mg/L					
Chloride, mg/L					
Total Dissolved Solids, mg/L					
pH, standard units					
Temperature*, degrees Celsius					

* Temperature must be measured onsite at the time the groundwater sample is collected.

c. If ground water will be used, provide depth of the well See Addendum 5 and the name of the aquifer from which water is withdrawn Lower Chicot and Upper Goliad formations Gulf Coast Aquifer.

WORKSHEET 5.0

ACCOUNTING PLAN INFORMATION

The following information provides guidance on when an Accounting Plan may be required for certain applications and if so, what information should be provided. An accounting plan can either be very simple such as keeping records of gage flows, discharges, and diversions; or, more complex depending on the requests in the application. **Instructions, Page 20.**

1. Is Accounting Plan Required

Accounting Plans are generally required:

- For applications that request authorization to divert large amounts of water from a single point where multiple diversion rates, priority dates, and water rights can also divert from that point;
- For applications with complex environmental flow requirements;
- For applications with an alternate source of water where the water is conveyed and diverted; and

2. Accounting Plan Requirements

a. A **text file** that includes:
   1. an introduction explaining the temporary water use permit authorizations;
   2. an explanation of the fields in the accounting plan spreadsheet including how they are calculated and the source of the data;
   3. for accounting plans that include diversion from an existing water right location with multiple priority dates and authorizations, a section that discusses how water is accounted for by priority date and which water is subject to a priority call by whom; and
   4. should provide a summary of all sources of water.

b. A **spreadsheet** that includes:
   1. Basic daily data such as diversions, deliveries, compliance with any instream flow requirements, return flows discharged and diverted, and reservoir content, if applicable;
   2. Method for accounting for inflows if needed;
   3. Reporting of all water use;
   4. An accounting for all sources of water;
   5. For bed and banks applications, the accounting plan must track the discharged water from the point of delivery to the final point of diversion;
   6. Accounting for conveyance losses.

WORKSHEET 6.0

CALCULATION OF FEES

This worksheet is for calculating required application fees. Applications are not Administratively Complete until all required fees are received. **Instructions, Page 21.**

	Description	Amount ($)
Filing Fee	10 acre-feet or less	$100.00
	OR	
	Greater than 10 acre-feet	$250.00
Use Fee	Multiply $1.00 x _____acre-feet of water (or fraction thereof)	
Recording Fee		$20.00
Mailed Notice	Additional notice fee to be determined once application is submitted.	
	TOTAL INCLUDED	

Steve,

Below is a breakdown of the fees. Let me know if you have any questions. Thanks.

Filing	>10 ac-ft	$250.00
Recording		$20.00
Use	GW	$0.00
Mailed Notice	1 interjacent WR Holder	$2.94
Mailed Notice	TPWD	$0.94
Total Fees		**273.88**

Chris Kozlowski, Team Leader
Water Rights Permitting Team
Water Rights Permitting & Availability Section
Texas Commission on Environmental Quality
(512)239-1801
Chris.Kozlowski@tceq.texas.gov

ADDENDUM NO. 1
ADDITIONAL INFORMATION
WORKSHEET 3.1
DISCHARGE POINT INFORMATION

Discharge Point for Well No.1

a. The amount of water that will be discharged at the point is approximately 2,240 acre-feet per year. The discharged amount includes the amount needed for use and to compensate for any conveyance losses.
b. Water will be discharged at this point at a maximum rate of 2 mgd or 3.1 cfs or 1390 gpm.
c. Name of Watercourse as shown on Official USGS maps: Nueces River
d. Zip Code 78380
e. Location of point: Lots 181, 182 and 183, Riverside Addition Unit Three, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nueces County, Texas (See attached Tax Resale Deed)
f. Point is at: Latitude 27.900268 degrees N, Longitude -97.687502 degrees W
g. Indicate the method used to calculate the discharge point location: Google Earth and Handheld GPS Devise
h. The attached enclosed map identifies the discharge point.

Discharge Point for Wells No. 2-3 and 6-7

a. The amount of water that will be discharged at the point is approximately 8,960 acre-feet per year. The discharged amount includes the amount needed for use and to compensate for any losses.
b. Water will be discharged at this point at a maximum rate of 2 mgd or 3.1 cfs or 1390 gpm, for each well. Total for the four wells is 8 mgd, 12.4 cfs, or 5,560 gpm.
c. Name of Watercourse as shown on Official USGS maps: Nueces River
d. Zip Code 78380
e. Location of point: Lot 142, Riverside Addition, Unit Three, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nueces County, Texas (See attached Tax Resale deed).
f. Point is at: Latitude 27.890752 degrees N, Longitude -97.674094 degrees W
i. Indicate the method used to calculate the discharge point location: Google Earth and Handheld GPS Devise
g. The attached enclosed map identifies the discharge point.

Discharge Point for Well 4

a. The amount of water that will be discharged at the point is approximately 2,240 acre-feet per year. The discharged amount includes the amount needed for use and to compensate for any losses.

b. Water will be discharged at this point at a maximum rate of 2 mgd or 3.1 cfs or 1,390 gpm.
c. Name of Watercourse as shown on Official USGS maps: Nueces River
d. Zip Code 78380
e. Location of point: Lots 155 and 156, Riverside Addition Unit Three, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nueces County, Texas (See attached Tax Resale Deed)
f. Point is at: Latitude 27.899372 degrees N, Longitude -97.682934 degrees W
j. Indicate the method used to calculate the discharge point location: Google Earth and Handheld GPS Devise
g. The attached enclosed map identifies the discharge point.

Discharge Point for Well 5

a. The amount of water that will be discharged at the point is approximately 2,240 acre-feet per year. The discharged amount includes the amount needed for use and to compensate for any losses.
b. Water will be discharged at this point at a maximum rate of 2 mgd or 3.1 cfs or 1,390 gpm.
c. Name of Watercourse as shown on Official USGS maps: Nueces River
d. Zip Code 78380
e. Location of point: Lot 151, Riverside Addition, Unit 3, an addition near the City of Corpus Christi, Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nueces County, Texas and Lot 152, Riverside Addition Unit 3, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nueces County, Texas (See attached Tax Resale Deeds).
f. Point is at: Latitude 27.899897 N, Longitude -97.682449 degrees W
k. Indicate the method used to calculate the discharge point location: Google Earth and Handheld GPS Devise
g. The attached enclosed map identifies the discharge point.

ADDENDUM 2
Accounting Plan for Water Diversions

The City of Corpus Christi will meter all groundwater delivered into the Nueces River at each discharge location. We will also meter all groundwater delivered into the river from each well. The City will meter all releases of water to be used by the City from Lake Corpus Christi into the Nueces River. The City will keep records of the amounts of water released into (surface water) and delivered into the Nueces River (groundwater) to ensure the diversions from the Nueces River do not exceed the released or delivered amounts of water minus the carriage losses. Carriage losses will be 7%. The carriage losses were based on the technical report HDR Engineering, Inc., Trans-Texas Water Program, September, 1995.

ADDENDUM 3

Worksheet 2.0 (continued)

Intakes 1 and 2 are located at points on the perimeter of Calallen Reservoir in the Gregorio Farias Survey, Abstract No. 592; Mariano Lopez De Herrera Survey, Abstract No. 606; Nueces County and Victoriano Tares and Pedro Villareal Grant, Abstract 32, San Patricio County.

DIVERSION LOCATION Intake 2

a. On watercourse (USGS Name); Intake 2 Nueces River

b. Zip Code: 78410

c. Point is at Latitude: 27.867309 Longitude: -97.633639

d. Method used to calculate location: Google Earth and held site device Survey

e. Does the application include the required maps: Yes

Corpus Christi Water Groundwater Project
Proposed Source Water Monitoring

Introduction

Corpus Christi Water (CCW), the water and wastewater division of the City of Corpus Christi, is developing a groundwater project in response to the extreme drought faced by the Coastal Bend. Combined storage of the City's primary water supply is currently at 17.3% and dropping daily. While the City has enacted strict drought restrictions on businesses and residents, water levels are expected to continue dropping due to ongoing below-average rainfall and above-average temperatures. In response to this severe water supply shortage, CCW is developing several emergency projects to supplement the current water supply. The proposed CCW groundwater project can provide over 13 million gallons per day (mgd) of water from the Chicot and Evangeline formations of the Gulf Coast Aquifer. Conveyance of this water will be through the Nueces River to the existing permitted intakes presently used by the City of Corpus Christi.

The Nueces River segment that will be utilized for this project is Segment 2102: "Nueces River Below Lake Corpus Christi." This river segment runs from the Wesley E. Seale Dam at Lake Corpus Christi to a dam in Calallen that separates freshwater from the tidal zone of Nueces River. The Calallen Diversion Dam, otherwise known as the saltwater barrier dam, prevents most of the saline water from the entering the Nueces River from the Nueces Bay tidal zone; however, tidal changes in the Nueces River delta can affect the river via the Rincon Bayou channel. Tidal changes along with other pollutants such as agricultural runoff, improperly plugged oil and gas wells, and illegal dumping, have led to historically variable water quality within Segment 2102.

Historic Data Assessment

The Texas Commission on Environmental Quality (TCEQ) lists the Nueces River below Lake Corpus Christi as an impaired water body due to total dissolved solid (TDS) concentrations. This designation appears on the TCEQ 303(d) list from 2012 to 2022 and was relisted in 2024. To best evaluate the current water quality in the river segment at the groundwater project location, historical data was collected and analyzed from multiple sources. Using this assessment, CCW developed this monitoring plan aimed at protecting the river from degradation.

Corpus Christi Water collects monthly data from all surface water sources to monitor quality and develop trends. From 2015 to 2025, monthly samples at the Nueces River intakes were analyzed at a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory for 28 parameters including conductivity and TDS. Conductivity ranged from 211 µS/cm to 1,664

µS/cm with an average of 1,092 µS/cm. TDS results ranged from 131 mg/L to 978 mg/L with an average of 656 mg/L. CCW also monitors conductivity daily from the Nueces River as it enters the O.N. Stevens Water Treatment Plant (ONSWTP). Conductivity ranged from 205 µS/cm to 2,133 µS/cm with an average of 1,079 µS/cm. Texas Surface Water Quality Standards recommend estimating TDS by multiplying the conductivity reading by 0.65. Using this conversion factor, TDS results from 2024 and 2025 ranged from 133 mg/L to 1,387 mg/L with an average of 701 mg/L.

The Nueces River Authority maintains a water quality monitoring station at Hazel Bazemore Park Boat Ramp located approximately five miles downstream of the furthest proposed discharge location. Data collected between 2011 and 2022 recorded specific conductivity ranges from 580 µS/cm to 1,480 µS/cm with an average of 1,118 µS/cm. The calculated TDS results range from 377 mg/L to 962 mg/L with an average of 727 mg/L.

Following a recent rainfall event on March 26 – 28. 2025, TDS values were frequently checked at the well proposed discharge locations to assess water quality changes. There was no well discharge at this time and TDS values ranged from 222 mg/L to 1,301 mg/L. These highly variable levels of TDS within Nueces River Segment 2102 demonstrate that fluctuating water quality is normative for the section of the river influenced by this project. Figure 1 below displays the minimum, maximum, and average TDS values from 2012 to 2025 using all data sources.

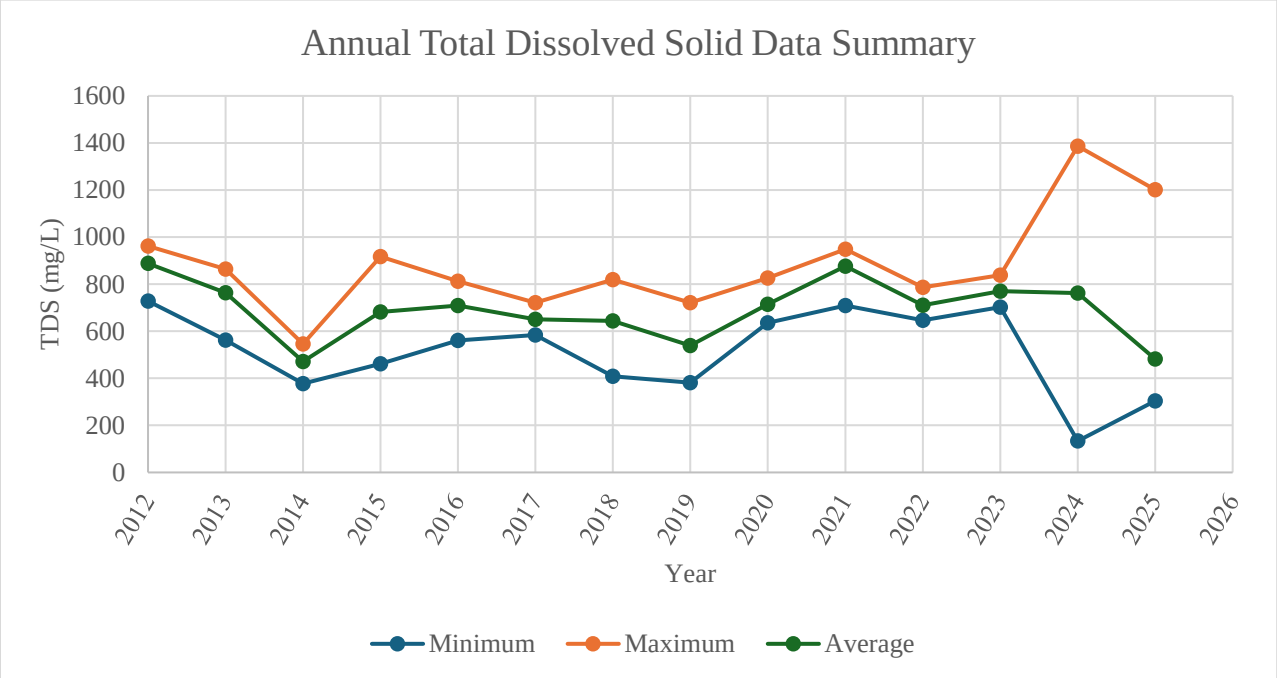

Figure 1: Minimum, Maximum, and Average TDS values from 2012 to 2025

Proposed Wells

Corpus Christi Water is drilling a series of seven wells on the Nueces River upstream of the ONSWTP intakes. Prior to treatment, Nueces River water is blended with water from the Mary Rhodes Pipeline, which provides water from Lake Texana and the Lower Colorado River. CCW treats the blended water using conventional treatment methods. It is then distributed to the City of Corpus Christi and numerous wholesale customers and systems including San Patricio Municipal Water District, South Texas Water Authority, Nueces County Water Control Improvement District 4, and the Corpus Christi Naval Air Station. Ultimately, Corpus Christi Water is responsible for providing drinking water to over 500,000 individuals within the Coastal Bend.

Drilling and pump testing are complete for CCW – Well 1, CCW – Well 2, and CCW – Well 3. This testing process determines well performance and reveals aquifer characteristics. During testing, CCW – Well 1 yielded 1,100 gallons per minute (gpm) (1.584 mgd) and CCW – Well 2 and CCW – Well 3 generated 1,500 gpm (2.16 mgd). All wells exhibited minimal drawdown and excellent performance. Water quality samples were collected after approximately 23.5 hours of test pumping at these wells. Samples were concurrently collected in Nueces River upstream of the proposed discharge locations. At the time of sampling, field measurements were captured for temperature, pH, and dissolved oxygen. A NELAP accredited laboratory analyzed all samples for sulfate, chloride, and total dissolved solids. Initial sample results of the groundwater in the CCW wells 1 through 3 indicate increased total dissolved solids (5,180 mg/L, 3,130 mg/L, and 3,660 mg/L). Laboratory reports are provided in Attachment 1. CCW – Well 4 through CCW – Well 7 are currently in various stages of completion and will be sampled following 24-hour pump testing. These laboratory results will be provided to TCEQ within 30 days of sample collection for each well.

To assess the effect on the river water quality that the well discharge would have, CCW staff conducted a full TDS profile on the Nueces River at the CCW – Well 1 discharge. This profile was used to determine the TDS levels in the river during well discharge, as well as the distance required for the Nueces River to return to “natural” TDS concentrations. The profile analyzed TDS at varying depths and distances across the width of the river beginning at 20’ before the discharge and concluding 1,250’ past the discharge location. CCW – Well 1 flow rate during this study was 1,100 gpm with a TDS concentration of 5,020 mg/L before blending with the river. However, the highest recorded measurement of TDS in the Nueces River was 1,189 mg/L, occurring directly at the discharge at a depth of 4’ mid-river. Within 55’ downstream of the discharge, the TDS levels stabilized at approximately 860 mg/L with natural fluctuations no greater than 127 mg/L. This data provides confidence that blending the well water with river Segment 2102 will not cause adverse effects to aquatic life or overall quality. Additionally, CCW believes that since the ambient TDS concentrations do not appear to be any more or less toxic to

fish than the estimated TDS concentrations noted during the test discharge; the monitoring proposed by the plan should provide adequate aquatic protection.

Proposed Monitoring Plan

In a time of extreme drought and increasing water shortages in the Coastal Bend, CCW recognizes that there must be a balance between providing additional water supplies to the community and the long-term protection of the water quality of the Nueces River as a natural resource. CCW proposes a source water monitoring plan for Segment 2102 to demonstrate there is not significant water quality degradation at the proposed well discharge locations. This monitoring plan includes a tiered response dependent on the severity of action levels proposed.

With the large variation in total dissolved solids historically documented within the lower Nueces River, action levels are proposed based on proportional increases in TDS concentration. This ensures that measures taken are in response to TDS loading caused by groundwater discharge rather than common fluctuations attributable to environmental events, changes in weather and rainfall, upstream runoff, or other factors not under the control of CCW. To implement this monitoring plan, CCW will deploy four continuous surface water monitoring multiparameter sondes. As seen in Figure 2, instrument "A" will be deployed approximately 100' upstream of the first discharge to monitor current river conditions while instrument "B" will be positioned 50' downstream of CCW – Well 1 discharge, Instrument "C" will be placed 50' downstream of CCW - Well 5 discharge, and Instrument "D" will be located approximately 300' downstream of the discharge location of CCW – Well 2, CCW – Well 3, CCW – Well 6, and CCW – Well 7. Each sonde utilizes a data logger and global cellular telemetry that transmits readings and initiates an alarm when thresholds are met. Alarms will ensure there will be a rapid response to changes in water quality.

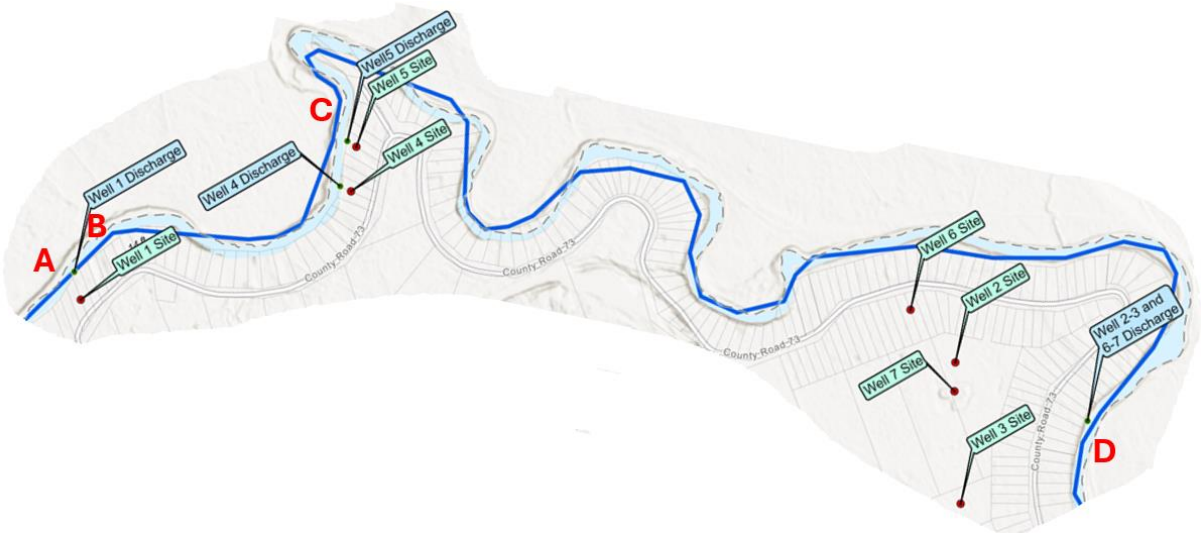

Figure 2: Multiparameter sonde locations

Sonde maintenance will follow recommendations of TCEQ's Surface Water Quality Monitoring Procedures (RG 415), Chapter 8, "Calibrating and Maintaining Multiprobe Instruments." All maintenance and calibration activities will be recorded in individual logs for each instrument and maintained for a period of 5 years. Instrument calibration and maintenance will be performed at a minimum of every 2 months. Specific steps required for calibration and confirmation of instrument function will be documented in CCWs Standard Operating Procedure for Maintaining Sondes. Additionally, the manufacturer of the sondes will perform annual maintenance and 3D factory calibration. During periods of unexpected instrument malfunction or maintenance, the monitoring location will be limited to no more than 3 days without replacing the nonfunctioning sonde. This excludes major events, such as hurricanes and other *damnum fatale* occurrences.

TDS measurements recorded on monitoring sondes B, C, and D will be independently compared to sonde A which captures conditions prior to the introduction of groundwater. TDS measurements will be taken in increments of 15 minutes. These increments will be continuously averaged for 8-hour periods. Current water quality conditions will be assessed using an 8-hour moving average. When the 8-hour average TDS concentrations reach 1,000 mg/L at any discharge sonde, the instrument immediately generates an alert that is received via email and text by Water Quality Staff (WQS). At this stage, WQS initiates steps required by the monitoring plan. The degree of increase in 8-hour average TDS between instrument A and instrument B, C, and/or D that triggered the alarm determines the next steps. Required responses will occur for only the discharge(s) that exhibit elevated TDS concentrations and their corresponding wells.

CCW recognizes, as the monitoring process is implemented, that from time-to-time issues may arise that require CCW to make minor changes to the monitoring plan. CCW will advise the South Texas Watermaster prior to such changes to ensure the intent of the monitoring plan is not impacted. Proposed Action levels and their corresponding responses are on page 6.

Action Level	Trigger	Response
Action Level 0	Instruments B, C, and D 8-hour average TDS are <1,000 mg/L	• Data is reviewed on a weekly basis to ensure water quality trends are satisfactory.
Action Level 1	Instruments B, C, and/or D 8-hour average TDS are >1,000 mg/L **AND** 20 – 29.9% greater than A	Downstream discharge is 20 – 29.9% higher than the upstream value. • Data is reviewed daily. • If levels remain above 20% for 6 hours, staff are dispatched to site. • Staff confirm equipment is operating properly and assess environmental conditions. • If levels remain elevated for 48 hours, status moves to Action Level 2.
Action Level 2	Instruments B, C, and/or D initial 8-hour average TDS or increased 4-hour TDS averages are >1,000 mg/L **AND** 30-39.9% greater than A	Downstream discharge is 30 – 39.9% higher than the upstream value OR downstream values have remained in Action Level 1 for 48 hours. • All steps in Action Level 1 occur • Monitoring frequency is increased to hourly. • Wells currently pumping are reduced by 10%. • If levels remain elevated for 48 hours, status moves to Action Level 3.
Action Level 3	Instruments B, C, and/or D 8-hour average TDS or increased 4-hour TDS averages >1,000 mg/L **AND** 40% + greater than A	Downstream discharge is more than 40% higher than the upstream value OR downstream values have remained in Action Level 2 for 48 hours. • All steps in Action Level 1 and 2 occur. • Wells currently pumping are reduced in increments of 10% and/or increases of water released from Wesley Seale Dam occur. • Further adjustments are made every 8 hours in groundwater discharge and/or Lake Corpus Christi flow until TDS levels return to Action Level 2. • Concentrations must return to the previous Action Level within 48 hours until reaching Action Level 0, or the response continues to be elevated through the Tiered Responses.

Example

Data sonde A and B have collected TDS readings every 15 minutes. At 12:00, an alert is received that sonde B is recording results over 1,000 mg/L. The 8-hour average result is 950 mg/L for sonde A and 1,250 mg/L for sonde B. Action Level 1 is initiated due to sonde B 8-hour average TDS results being 27% higher than sonde A 8-hour average TDS results. Data continues to be logged and after 6 hours, the 8-hour averages remain elevated over 20% at sonde B. Staff are dispatched to the site to ensure equipment is functioning properly. If 8-hour average TDS results at sonde B remain more than 20% higher than sonde A for 48 hours, the event moves to Action Level 2.

Attachment 1

CCW – Well 1 and CCW – Well 2
Laboratory Results

Data Summary as of 05/09/2025

	Total Dissolved Solids (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Dissolved Oxygen (mg/L)	pH (S.U.)	Temperature (°C)
Well 1	5180	2458	619.2	3.51	7.76	28.4
Well 2	3130	1743.8	881.9	3.33	7.89	28.7
Well 3	3660	1411.5	807.8	3.22	7.95	21.5

City of Corpus Christi
Water Utilities Laboratory
13101 Leopard Street
361-826-1200 Fax: 361-242-9131

Analytical Report

Client Info Water Quality
Corpus Christi Water
13101 Leopard St.
Corpus Christi, TX 78410

Phone: **EMAIL:** [redacted]

Report# /Lab ID#: AC54518 **Report Date:** 3/23/25
Sample Name: WELL 1
Date Received: 03/23/2025 **Time:** 14:26
Date Sampled: 03/22/2025 **Time:** 13:34

Parameter	Result	Unit	Flag	RL 5	Date/Time Analyzed	Method	Analyst	Analysis Comments
Chloride by IC	2458.0	mg/l	D	37	3/22/25 18:41	EPA 300.0	VP	
Sulfate	619.2	mg/L	D	0.18	3/22/25 18:41	EPA 300.0	VP	
Total Dissolved Solids	5180	mg/L		500.0	3/22/25 14:43	SM 2540 C	VP	

Sample Comments:

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Respectfully Submitted,

Crystal Ybanez

Technical Director (or designee)

1. Quality assurance data for the sample batch which included this sample.
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N=Analysis not performed as per client request. **H**=Sample exceeded holding time. **P**=Analysis is from an unpreserved sample. **J**=Value reported is less than the RL but greater than the MDL .
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EG=Less than 1mg/L DO remained for all dilutions analyzed. The reported value is an estimated greater than value and is calculated for the dilution containing the least concentration of sample.
E= The data exceed the upper calibration limit; therefore the concentration is reported as an estimate.

CHAIN OF CUSTODY RECORD

Client Name: City of Corpus Christi - Well Project
Address: 13101 Leopard St.
City: Corpus Christi State: TX Zip: 78410
Phone: 361-826-1289 Fax:
Send Email report to [redacted]

Water Utilities Laboratory
13101 Leopard St.
Corpus Christi, TX 78410
Ph: (361) 826-1200

Sampler (PLEASE PRINT) Len Dunphy

	Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	No. of Containers/ Preservative: H_2SO_4	HNO_3	Thio	None	Matrix: WW Influent	WW Effluent	Water	Other -Specify	Residual Chlorine (if applicable): Total mg/L	Free mg/L	Analyze For: CBOD	BOD	TSS	TDS	Ammonia-N	TKN	Chloride	Oil & Grease	Phosphorus	Nitrate	Nitrite	Total Alkalinity	TOC	Total Coli/ E.coli	Fecal Coliform	Enterococci	E.coli-MPN	Other*
1	Well 1	AC5[illegible]8	3/22/25	13:34	✓						1			✓		N/A					✓			✓											✓
2	Nueces River @ Well 1	AC5499	3/22/25	13:41	✓						1			✓		N/A					✓			✓											✓
3																																			
4																																			
5																																			
6																																			

Relinquished By:	[signature]	Date: 3/22/25	Time: 1426
Received By:	[signature]	Date: 3/22/25	Time: 1426
Relinquished By:		Date:	Time:
Received By:		Date:	Time:

***** For Laboratory Use Only *****

Sample(s) on ice: (YES) NO	pH Strip Lot/ ID:
Receiving Temp (°C): 7.7	pH < 2? YES NO Line #(s):
Corrected Temp (°C): 7.7	Data Flag(s):
Temp. Device ID: B	

Special Instructions/Comments: Line 1 & 2- Sulfate

RUSH SAMPLE ANALYSIS PER CY

Other*: Well 1: pH - 7.76, Temp - 28.4 °C, Dissolved Oxygen - 3.51 mg/L
River: pH - 8.07, Temp - 26.8 °C, Dissolved Oxygen - 7.49 mg/L

Corpus ChristiWater CCW Serving the Coastal Bend

Corpus Christi Water Department
City of Corpus Christi
Water Utilities Laboratory
13101 Leopard Street
361-826-1200 Fax: 361-242-9131

Analytical Report

Client Info Water Quality
Corpus Christi Water
13101 Leopard St.
Corpus Christi, TX 78410

Phone: **EMAIL:** [redacted]

Report# /Lab ID#: AC54519 **Report Date:** 3/23/25
Sample Name: NUECES RIVER @ WELL 1
Date Received: 03/23/2025 **Time:** 14:26
Date Sampled: 03/22/2025 **Time:** 13:41

Parameter	Result	Unit	Flag	RL 5	Date/Time Analyzed	Method	Analyst	Analysis Comments
Chloride by IC	233.4	mg/l	D	37	3/22/25 19:14	EPA 300.0	VP	
Sulfate	92.5	mg/L	D	18	3/22/25 19:14	EPA 300.0	VP	
Total Dissolved Solids	580	mg/L		500	3/22/25 14:43	SM 2540 C	VP	

Sample Comments:

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CHAIN OF CUSTODY RECORD

Client Name: City of Corpus Christi - Well Project
Address: 13101 Leopard St.
City: Corpus Christi State: TX Zip: 78410
Phone: 361-826-1289 Fax:
Send Email report to [redacted]

Water Utilities Laboratory
13101 Leopard St.
Corpus Christi, TX 78410
Ph: (361) 826-1200

Sampler (PLEASE PRINT) Len Dunphy

	Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	No. of Containers/ Preservative: H_2SO_4	HNO_3	Thio	None	Matrix: WW Influent	WW Effluent	Water	Other -Specify	Residual Chlorine (if applicable): Total mg/L / Free mg/L	Analyze For: CBOD	BOD	TSS	TDS	Ammonia-N	TKN	Chloride	Oil & Grease	Phosphorus	Nitrate	Nitrite	Total Alkalinity	TOC	Total Coli/ E.coli	Fecal Coliform	Enterococci	E.coli-MPN	Other*
1	Well 1	AC5458	3/22/25	13:34	✓						1			✓		N/A				✓			✓											✓
2	Nueces River @ Well 1	AC5459	3/22/25	13:41	✓						1			✓		N/A				✓			✓											✓
3																																		
4																																		
5																																		
6																																		

Relinquished By:	[signature]	Date: 3/22/25	Time: 1426
Received By:	[signature]	Date: 3/22/25	Time: 1426
Relinquished By:		Date:	Time:
Received By:		Date:	Time:

***** For Laboratory Use Only *****

Sample(s) on ice: (YES) NO	pH Strip Lot/ ID:
Receiving Temp (°C): 7.7	pH < 2? YES NO Line #(s):
Corrected Temp (°C): 7.7	Data Flag(s):
Temp. Device ID: B	

Special Instructions/Comments: Line 1 & 2- Sulfate

RUSH SAMPLE ANALYSIS PER CY

Other*: Well 1: pH - 7.76, Temp - 28.4 °C, Dissolved Oxygen - 3.51 mg/L
River: pH - 8.07, Temp - 26.8 °C, Dissolved Oxygen - 7.49 mg/L

Corpus ChristiWater CCW Serving the Coastal Bend

Corpus Christi Water Department

City of Corpus Christi
Water Utilities Laboratory
13101 Leopard Street
361-826-1200 Fax: 361-242-9131

Analytical Report

Client Info Water Quality
Corpus Christi Water
13101 Leopard St.
Corpus Christi, TX 78410

Phone: **EMAIL:** [redacted]

Report# /Lab ID#: AC56059 **Report Date:** 4/14/25
Sample Name: WELL 2
Date Received: 04/12/2025 **Time:** 15:22
Date Sampled: 04/12/2025 **Time:** 14:50

Parameter	Result	Unit	Flag	RL 5	Date/Time Analyzed	Method	Analyst	Analysis Comments
Chloride by IC	1743.76	mg/l	D, E	3.7	4/13/25 11:27	EPA 300.0	VM	
Sulfate	881.87	mg/L	D, E	1.8	4/13/25 11:27	EPA 300.0	VM	
Total Dissolved Solids	3130	mg/L			4/12/25 15:45	SM 2540 C	VM	

Sample Comments:

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CHAIN OF CUSTODY RECORD

Client Name: City of Corpus Christi - Well Project
Address: 13101 Leopard St.
City: Corpus Christi State: TX Zip: 78410
Phone: 361-826-1289 Fax:
Send Email report to: [redacted]

Water Utilities Laboratory
13101 Leopard St.
Corpus Christi, TX 78410
Ph: (361) 826-1200

Sampler (PLEASE PRINT): Len Dunphy

Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	No. of Containers/ Preservative: H_2SO_4	HNO_3	Thio	None	Matrix: WW Influent	WW Effluent	Water	Other -Specify	Residual Chlorine (if applicable): Total mg/L / Free mg/L	Analyze For: CBOD	BOD	TSS	TDS	Ammonia-N	TKN	Chloride	Oil & Grease	Phosphorus	Nitrate	Nitrite	Total Alkalinity	TOC	Total Coli/ E.coli	Fecal Coliform	Enterococci	E.coli-MPN	Other *
1 Well 2	AC560059	4/12/25	14:50	✓						1			✓		N/A				✓			✓											✓
2 Nueces River @ Well 2	AC560060	4/12/25	14:30	✓						1			✓		N/A				✓			✓											✓
3																																
4																																
5																																
6																																

Relinquished By: Len Dunphy Date: 4/12/25 Time: 15:22
Received By: Carolyn Jarnak Date: 4-12-25 Time: 1522
Relinquished By: Date: Time:
Received By: Date: Time:

***** For Laboratory Use Only *****
Sample(s) on ice: YES NO pH Strip Lot/ ID:
Receiving Temp (°C): 4.2 pH < 2? YES NO Line #(s):
Corrected Temp (°C): 4.2 Data Flag(s):
Temp. Device ID: A

Special Instructions/Comments: Line 1 & 2- Sulfate
RUSH SAMPLE ANALYSIS PER CY
Other*: Well 1: pH - 7.89, Temp - 28.7 °C, Dissolved Oxygen - 3.33 mg/L
River: pH - 8.15, Temp - 28.0 °C, Dissolved Oxygen - 7.55 mg/L

Corpus Christi Water CCW Serving the Coastal Bend

Corpus Christi Water Department

City of Corpus Christi
Water Utilities Laboratory
13101 Leopard Street
361-826-1200 Fax: 361-242-9131

Analytical Report

Client Info Water Quality
Corpus Christi Water
13101 Leopard St.
Corpus Christi, TX 78410

Phone: **EMAIL:** [redacted]

Report# /Lab ID#: AC56060 **Report Date:** 4/14/25
Sample Name: NUECES RIVER @WELL 2
Date Received: 04/12/2025 **Time:** 15:22
Date Sampled: 04/12/2025 **Time:** 14:30

Parameter	Result	Unit	Flag	RL 5	Date/Time Analyzed	Method	Analyst	Analysis Comments
Chloride by IC	471.65	mg/l	D, E	3.7	4/13/25 11:59	EPA 300.0	VM	
Sulfate	144.04	mg/L	D	1.8	4/13/25 11:59	EPA 300.0	VM	
Total Dissolved Solids	1160	mg/L			4/12/25 15:45	SM 2540 C	VM	

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CHAIN OF CUSTODY RECORD

Client Name: City of Corpus Christi - Well Project
Address: 13101 Leopard St.
City: Corpus Christi State: TX Zip: 78410
Phone: 361-826-1289 Fax:
Send Email report to: [redacted]

Water Utilities Laboratory
13101 Leopard St.
Corpus Christi, TX 78410
Ph: (361) 826-1200

Sampler (PLEASE PRINT): Len Dunphy

Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	No. of Containers/ Preservative: H_2SO_4	HNO_3	Thio	None	Matrix: WW Influent	WW Effluent	Water	Other -Specify	Residual Chlorine (if applicable): Total mg/L / Free mg/L	Analyze For: CBOD	BOD	TSS	TDS	Ammonia-N	TKN	Chloride	Oil & Grease	Phosphorus	Nitrate	Nitrite	Total Alkalinity	TOC	Total Coli/ E.coli	Fecal Coliform	Enterococci	E.coli-MPN	Other *
1 Well 2	AC560059	4/12/25	14:50	✓						1			✓		N/A				✓			✓											✓
2 Nueces River @ Well 2	AC560060	4/12/25	14:30	✓						1			✓		N/A				✓			✓											✓
3																																
4																																
5																																
6																																

Relinquished By: Len Dunphy Date: 4/12/25 Time: 15:22
Received By: Carolyn Jarman Date: 4-12-25 Time: 1522
Relinquished By: Date: Time:
Received By: Date: Time:

***** For Laboratory Use Only *****
Sample(s) on ice: YES NO pH Strip Lot/ ID:
Receiving Temp (°C): 4.2 pH < 2? YES NO Line #(s):
Corrected Temp (°C): 4.2 Data Flag(s):
Temp. Device ID: A

Special Instructions/Comments: Line 1 & 2- Sulfate
RUSH SAMPLE ANALYSIS PER CY
Other*: Well 1: pH - 7.89, Temp - 28.7 °C, Dissolved Oxygen - 3.33 mg/L
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Corpus Christi Water CCW Serving the Coastal Bend

City of Corpus Christi
Water Utilities Laboratory
13101 Leopard Street
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Analytical Report

Client Info Water Quality
Corpus Christi Water
13101 Leopard St.
Corpus Christi, TX 78410

Phone: **EMAIL:** [redacted]

Report# /Lab ID#: AC57413 **Report Date:** 5/5/25
Sample Name: WELL 3
Date Received: 05/03/2025 **Time:** 08:02
Date Sampled: 05/03/2025 **Time:** 07:20

Parameter	Result	Unit	Flag	RL [5]	Date/Time Analyzed	Method	Analyst	Analysis Comments
Chloride by IC	1411.5	mg/l	D	37	5/3/25 19:09	EPA 300.0	FK	
Sulfate	807.8	mg/L	D	18	5/3/25 19:09	EPA 300.0	FK	
Total Dissolved Solids	3660	mg/L		250.0	5/3/25 13:49	SM 2540 C	FK	

Sample Comments:

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CHAIN OF CUSTODY RECORD

Client Name: City of Corpus Christi - Well Project
Address: 13101 Leopard St.
City: Corpus Christi State: TX Zip: 78410
Phone: 361-826-1289 Fax:
Send Email report to: [redacted]

Water Utilities Laboratory
13101 Leopard St.
Corpus Christi, TX 78410
Ph: (361) 826-1200

Sampler (PLEASE PRINT) Len Dunphy

	Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	No. of Containers/ Preservative: H_2SO_4	HNO_3	Thio	None	Matrix: WW Influent	WW Effluent	Water	Other -Specify	Residual Chlorine (If applicable): Total mg/L / Free mg/L	Analyze For: CBOD	BOD	TSS	TDS	Ammonia-N	TKN	Chloride	Oil & Grease	Phosphorus	Nitrate	Nitrite	Total Alkalinity	TOC	Total Coli/ E.coli	Fecal Coliform	Enterococci	E.coli-MPN	Other*
1	Well 3	AC57413	5/3/25	7:20	✓						1			✓		N/A				✓			✓											✓
2	Nueces River @ Well 3	AC57414	5/3/25	6:52	✓						1			✓		N/A				✓			✓											✓
3	Well 3	AC57415	5/3/25	7:20	✓				1					✓		N/A																		✓
4	Nueces River @ Well 3	AC57416	5/3/25	6:52	✓				1					✓		N/A																		✓
5																																	
6																																	

Relinquished By: Ken Dunphy	Date: 5/3/25	Time: 8:02	
Received By:	Date: 5.3.25	Time: 0802	
Relinquished By:	Date:	Time:	
Received By:	Date:	Time:	

***** For Laboratory Use Only *****

Sample(s) on ice: (YES) NO	pH Strip Lot# ID: W3046
Receiving Temp (°C): 8.3	pH < 2? (YES) NO Line #(s): 3&4
Corrected Temp (°C): 8.3	Data Flag(s):
Temp. Device ID: 13	

Special Instructions/Comments: Well 3: pH - 7.95 Temp - 21.5 °C, Dissolved Oxygen - 3.22 mg/L
River: pH - 8.15 , Temp - 22.2 °C, Dissolved Oxygen - 6.91 mg/L
Other*: Line 1&2 Sulfate Line 3&4 Sodium,Silica, Potassium, Magnesium, Iron, Calcium, Aluminum, Antimony,Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Zinc, Mercury

Corpus Christi Water CCW Serving the Coastal Bend

Corpus Christi Water Department
City of Corpus Christi
Water Utilities Laboratory
13101 Leopard Street
361-826-1200 Fax: 361-242-9131

Analytical Report

Client Info Water Quality
Corpus Christi Water
13101 Leopard St.
Corpus Christi, TX 78410

Phone: **EMAIL:** [redacted]

Report# /Lab ID#: AC57414 **Report Date:** 5/5/25
Sample Name: NUECES RIVER @ WELL 3
Date Received: 05/03/2025 **Time:** 08:02
Date Sampled: 05/03/2025 **Time:** 06:52

Parameter	Result	Unit	Flag	RL 5	Date/Time Analyzed	Method	Analyst	Analysis Comments
Chloride by IC	272.8	mg/l	D	9.2	5/3/25 19:41	EPA 300.0	FK	
Sulfate	89.9	mg/L	D	4.5	5/3/25 19:41	EPA 300.0	FK	
Total Dissolved Solids	930	mg/L		250.0	5/3/25 13:49	SM 2540 C	FK	

Sample Comments:

This analytical report is respectfully submitted by the Water Utilities Laboratory. The enclosed results reflect only the sample(s) identified above. The results have been carefully reviewed and, unless otherwise indicated, meet the NELAC requirements as described by the Water Utilities Lab's QA/QC program. No part of this report shall be reproduced or transmitted in any form or by any means without the written consent of the City of Corpus Christi-Water Utilities Lab.

Respectfully Submitted,

Technical Director (or designee)

1. Quality assurance data for the sample batch which included this sample.
2. Precision (PREC) is the absolute value of the relative percent difference between duplicate results .
3. Recovery (RECOV) is the percent of analyte recovered from a spiked sample.
4. Laboratory Control Sample (LCS) results are expressed as the percent recovery of analyte.
5. Reporting Limit (RL), typically at or above the Limit of Quantitation (LOQ) of the analytical method.
6. Data Qualifiers:

N=Analysis not performed as per client request. **H**=Sample exceeded holding time. **P**=Analysis is from an unpreserved sample. **J**=Value reported is less than the RL but greater than the MDL .
X=MS/MSD recovery or duplicates analysis exceeded the acceptance limit or Standard failed. **LA**=Lab accident. **LE**=Lab error. **OA**=Outside the scope of the lab's NELAC accreditation.
U=Unsuitable; sample turned turbid after incubation. **T**=Sample below temp requirement; not on ice. **EQ**=Equipment failure. **I**=Information on sample bottle and COC does not match.
S Slow to filter; sample contains floc and/or large amount of residue on filter **O** Analysis performed by an outside NELAC accredited lab; **O^** Analysis flagged by outside laboratory
Z=Too many colonies present to provide a result (TNTC). **A**=Value reported is the mean of two or more determinations . **R**=Reagent water contamination suspected. **B**=Sample broken in transit.
NI=Not analyzed due to interferences. **K**=BOD result estimated due to blank exceeding the allowable oxygen depletion. **D**=Sample dilution required for analysis/ quality control.
SC=BOD/CBOD calculated using a seed correction factor not within acceptable range. **QB**=No QC data assigned to sample; sample result not affected.
EL=Oxygen usage is less than 2mg/L for all dilutions analyzed. The reported value is an estimated less than value and is calculated for the dilution containing the greatest concentration of sample.
EG=Less than 1mg/L DO remained for all dilutions analyzed. The reported value is an estimated greater than value and is calculated for the dilution containing the least concentration of sample.
E= The data exceed the upper calibration limit; therefore the concentration is reported as an estimate.

CHAIN OF CUSTODY RECORD

Client Name: City of Corpus Christi - Well Project
Address: 13101 Leopard St.
City: Corpus Christi State: TX Zip: 78410
Phone: 361-826-1289 Fax:
Send Email report to: [redacted]

Water Utilities Laboratory
13101 Leopard St.
Corpus Christi, TX 78410
Ph: (361) 826-1200

Sampler (PLEASE PRINT) Len Dunphy

	Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	No. of Containers/ Preservative: H_2SO_4	HNO_3	Thio	None	Matrix: WW Influent	WW Effluent	Water	Other -Specify	Residual Chlorine (If applicable): Total mg/L / Free mg/L	Analyze For: CBOD	BOD	TSS	TDS	Ammonia-N	TKN	Chloride	Oil & Grease	Phosphorus	Nitrate	Nitrite	Total Alkalinity	TOC	Total Coli/ E.coli	Fecal Coliform	Enterococci	E.coli-MPN	Other*
1	Well 3	AC57413	5/3/25	7:20	✓						1			✓		N/A				✓			✓											✓
2	Nueces River @ Well 3	AC57414	5/3/25	6:52	✓						1			✓		N/A				✓			✓											✓
3	Well 3	AC57415	5/3/25	7:20	✓				1					✓		N/A																		✓
4	Nueces River @ Well 3	AC57416	5/3/25	6:52	✓				1					✓		N/A																		✓
5																																	
6																																	

Relinquished By: Ken Dunphy	Date: 5/3/25	Time: 8:02	
Received By:	Date: 5.3.25	Time: 0802	
Relinquished By:	Date:	Time:	
Received By:	Date:	Time:	

***** For Laboratory Use Only *****

Sample(s) on ice: (YES) NO	pH Strip Lot# ID: W3046
Receiving Temp (°C): 8.3	pH < 2? (YES) NO Line #(s): 3&4
Corrected Temp (°C): 8.3	Data Flag(s):
Temp. Device ID: B	

Special Instructions/Comments: Well 3: pH - 7.95 Temp - 21.5 °C, Dissolved Oxygen - 3.22 mg/L
River: pH - 8.15 , Temp - 22.2 °C, Dissolved Oxygen - 6.91 mg/L
Other*: Line 1&2 Sulfate Line 3&4 Sodium,Silica, Potassium, Magnesium, Iron, Calcium, Aluminum, Antimony,Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Manganese, Nickel, Selenium, Silver, Thallium, Zinc, Mercury

Corpus Christi Water CCW Serving the Coastal Bend

Attachment 2

CCW – Well 1 TDS Profile

CCW - Well 1 TDS Profile

Initial Sample Results

CCW – Well 1, a newly drilled well, began a 24-hour pumping test on 03/21/2025 at 1400 to evaluate the well performance and aquifer characteristics. The well was test pumped at 1,100 gallons per minute (gpm) (1.584 million gallons per day) with minimal drawdown and excellent performance. Water quality samples were collected after 23.5 hours of test pumping. Additionally, a sample was collected in Nueces River 80 feet upstream of the Well 1 proposed discharge location. Both samples were analyzed for sulfate, chloride, and total dissolved solids (TDS) by a NELAP accredited laboratory. Temperature, pH, and dissolved oxygen were measured in the field at the time of sampling. The results are located in Table 1 below.

	CCW - Well 1	Nueces River at Well 1 Proposed Discharge
Sulfate (mg/L)	619.2	92.5
Chloride (mg/L)	2458.0	233.4
Total Dissolved Solids (mg/L)	5180	580
pH (S.U.)	7.76	8.07
Temperature (°C)	28.4	26.8
Dissolved Oxygen (mg/L)	3.51	7.49

Table 1: CCW – Well 1 Sample Results

Total Dissolved Solids Profile

Following initial sample results, CCW staff elected to conduct additional sampling in Nueces River to assess the effect of discharge on TDS levels. CCW - Well 1 underwent a second pumping test on 03/25/2025 to simulate discharge conditions that will occur during normal operation of the well when approved for discharge. The well was test pumped at 1,100 gpm, which led to overland flow and surface runoff into Nueces River at the well's proposed discharge location.

To profile the Nueces River for TDS during the simulated discharge period, staff utilized a handheld Hach HQ1140 meter and Intellical CDC401 probe. This instrument and probe are used for field measurements of conductivity, total dissolved solids, and salinity. The instrument was calibrated 19 hours prior to use. Additionally, the instrument was checked against two reference standards immediately prior to field sampling to confirm the accuracy of the meter.

The CCW-Well 1 pumping test was initiated at 0700 on 3/25/2025 and maintained at 1,100 gpm until the conclusion of the test at 1240. River sampling began at 1040 and concluded at 1225. Due to overland flow, the full volume of water that was test pumped from the well discharged as surface

runoff at the proposed Well 1 discharge location. TDS (rather than conductivity or salinity) was the measurement utilized during this process as it is the parameter requested by the Texas Commission on Environmental Quality in the Bed and Banks Application.

Field measurements were taken at the direct discharge location prior to dilution in the river. To evaluate the effect on the river in the vicinity of the discharge location, TDS measurements were collected across the river from bank to bank. Measurements were collected three (3) feet from the bank edge on the south side of the river where the discharge is located, mid-river, and three (3) feet from the bank edge on the north side of the river (Figure 1).

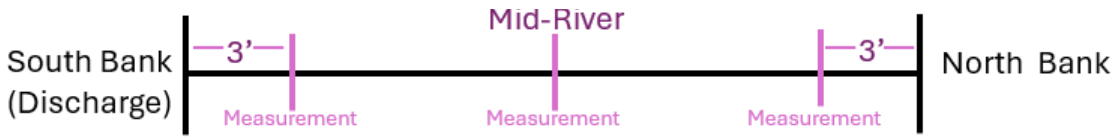

Figure 1: Vertical River Measurements

TDS field measurements were collected at varying depths at each vertical river measurement location. Measurement depths were determined based off the total depth of the river at each sample location to assess TDS levels near the bottom, middle, and top of the water level in the river.

To complete profiling, measurements were collected beginning at 20 feet prior to the discharge location, at the discharge location on the south bank, and at varying distances downstream of the discharge location beginning at five (5) feet and concluding 1,250 feet past the discharge location. The proposed discharge location is 12' wide to disperse the flow and reduce bank erosion. Three (3) samples were collected at 4' intervals at the discharge location to ensure the immediate river blending was assessed throughout the entire discharge length. A total of 76 TDS field measurements were collected during the sampling period on 03/25/2025. The profile results can be found on page 30.

Discharge
1,100 gpm
5020 mg/L

12' Discharge width

Distance from end of discharge

	3' from Bank	Mid River	3' from Bank	
20'	3' Total Depth 1.5' Deep 674 mg/L	4.5' Total Depth 1' Deep 675 mg/L 3' Deep 675 mg/L	3' Total Depth 1' Deep 674 mg/L 2' Deep 675 mg/L	55' Bank to Bank
				63' Bank to Bank
	4' Total Depth 1' Deep 818 mg/L 3' Deep 674 mg/L			
	4' Total Depth 1' Deep 1031 mg/L 3' Deep 746 mg/L			
	4' Total Depth 1' Deep 1116 mg/L 3' Deep 902 mg/L	5' Total Depth 1' Deep 1044 mg/L 2' Deep 1093 mg/L 4' Deep 1189 mg/L		
5'	3' Total Depth 1' Deep 964 mg/L 3' Deep 1101 mg/L	4' Total Depth 1' Deep 674 mg/L 3' Deep 674 mg/L	2.5' Total Depth 1' Deep 672 mg/L	
15'	5' Total Depth 1' Deep 1056 mg/L 2' Deep 1105 mg/L 4' Deep 1149 mg/L	4' Total Depth 1' Deep 933 mg/L 3' Deep 1013 mg/L	2' Total Depth 1' Deep 673 mg/L	67' Bank to Bank
25'	3' Total Depth 1' Deep 877 mg/L 2' Deep 940 mg/L	4' Total Depth 1' Deep 675 mg/L 3' Deep 780 mg/L	4' Total Depth 1' Deep 675 mg/L 3' Deep 675 mg/L	
35'	4' Total Depth 1' Deep 935 mg/L 3' Deep 962 mg/L	5' Total Depth 1' Deep 854 mg/L 4' Deep 870 mg/L		
45'	4' Total Depth 1' Deep 926 mg/L 3' Deep 959 mg/L	5' Total Depth 1' Deep 851 mg/L 4' Deep 867 mg/L		
55'	4' Total Depth 1' Deep 889 mg/L 3' Deep 933 mg/L	4' Total Depth 1' Deep 853 mg/L 3' Deep 865 mg/L		70' Bank to Bank
75'	3' Total Depth 1' Deep 830 mg/L 2' Deep 856 mg/L			
85'	3' Total Depth 1' Deep 782 mg/L 2' Deep 788 mg/L			
105'	5' Total Depth 1' Deep 788 mg/L 2' Deep 812 mg/L 4' Deep 838 mg/L			
145'	5' Total Depth 1' Deep 863 mg/L 2' Deep 869 mg/L 4' Deep 875 mg/L	6' Total Depth 1' Deep 859 mg/L 3' Deep 901 mg/L 5' Deep 909 mg/L		65' Bank to Bank
185'	3' Total Depth 1' Deep 853 mg/L 2' Deep 868 mg/L			
205'	3' Total Depth 1' Deep 853 mg/L 2' Deep 851 mg/L			
245'	4' Total Depth 1' Deep 858 mg/L 2' Deep 857 mg/L			
550'	3' Total Depth 1' Deep 867 mg/L 2' Deep 870 mg/L	6' Total Depth 1' Deep 879 mg/L 3' Deep 882 mg/L 5' Deep 881 mg/L		73' Bank to Bank
1110'	4' Total Depth 1' Deep 865 mg/L 3' Deep 864 mg/L			70' Bank to Bank
1250'	6' Total Depth 1' Deep 864 mg/L 3' Deep 864 mg/L 5' Deep 864 mg/L	7' Total Depth 1' Deep 865 mg/L 6' Deep 865 mg/L	4' Total Depth 1' Deep 864 mg/L 3' Deep 864 mg/L	68' Bank to Bank

ADDENDUM 5
Groundwater Well Information

Well	Well Depth	Formation
CCW Well 1	810’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 2	744’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 3	780’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 4	790’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 5	750’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 6	780’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 7	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad

*Anticipated Total Depth

Doc# 20140027360

Notice of confidentiality rights: If you are a natural person, you may remove or strike any or all of the following information from any instrument that transfers an interest in real property before it is filed for record in the public records: your social security number or your driver's license number.

TAX RESALE DEED

STATE OF TEXAS X

X **KNOW ALL MEN BY THESE PRESENTS**

COUNTY OF NUECES X

That **Nueces County, Trustee**, acting through the presiding officer of its governing body, hereunto duly authorized by resolution and order of said governing body which is duly recorded in its official Minutes, hereinafter called grantor, for and in consideration of the sum of $1,146.00 cash in hand paid by

City of Corpus Christi
POB 9277
Corpus Christi, TX 78469-9277

hereinafter called grantee(s), the receipt of which is acknowledged and confessed, has quitclaimed and by these presents does quitclaim unto said grantee(s) all of the right, title and interest of grantor and all other taxing units interested in the tax foreclosure judgment against the property herein described, acquired by tax foreclosure sale heretofore held under **Suit No. 04-6664-A, Nueces County vs. Eugene L. Darby, Et Al** in the district court of said county, said property being located in Nueces County, Texas, and described as follows:

Lots 181, 182 and 183, Riverside Addition Unit Three, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nuece County, Texas

TO HAVE AND TO HOLD the said premises, together with all and singular the rights, privileges, and appurtenances thereto in any manner belonging unto the said grantee(s), their heirs and assigns forever, so that neither the grantor, nor any other taxing unit interested in said tax foreclosure judgment, nor any person claiming under it and them, shall at any time hereafter have, claim or demand any right or title to the aforesaid premises or appurtenances, or any part thereof.

Taxes for the present year are to be paid by grantee(s) herein.

This deed is given expressly subject to any existing right of redemption remaining in the former owner of the property under the provisions of law and also subject to any recorded restrictive covenants running with the land, and valid easements of record as of the date of this sale, if such covenants or easements were recorded prior to January 1 of the year the tax lien(s) arose.

THIS SALE IS BEING CONDUCTED PURSUANT TO STATUTORY OR JUDICIAL REQUIREMENTS. BIDDERS WILL BID ON THE RIGHTS, TITLE, AND INTERESTS, IF ANY, OWNED BY THE DEFENDANT(S) IN SUCH SUIT(S) IN AND TO THE REAL PROPERTY OFFERED.

THE PROPERTY IS SOLD AS IS, WHERE IS, AND WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. NEITHER THE COUNTY NOR THE SHERIFF'S DEPARTMENT OR CONSTABLE WARRANTS OR MAKES ANY REPRESENTATIONS ABOUT THE PROPERTY'S TITLE, CONDITION, HABITABILITY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. BUYERS ASSUME ALL RISKS.

IN SOME SITUATIONS, A LOT OF FIVE ACRES OR LESS IS PRESUMED TO BE INTENDED FOR RESIDENTIAL USE. HOWEVER, IF THE PROPERTY LACKS WATER OR WASTEWATER SERVICE, THE PROPERTY MAY NOT QUALIFY FOR RESIDENTIAL USE. A POTENTIAL BUYER WHO WOULD LIKE MORE INFORMATION SHOULD MAKE ADDITIONAL INQUIRIES OR CONSULT WITH PRIVATE COUNSEL.

****

ESTA VENTA SE REALIZA CONFORME A LOS REQUISITOS ESTATUTARIOS O JUDICIALES. LOS POSTORES LICITARAN POR LOS DERECHOS, TITULOS E INTERESES, SI FUESE EL CASO, DE LA PROPIEDAD INMUEBLE QUE SE OFRECE.

LA PROPIEDAD SE VENDE TAL CUAL, DONDE SE ENCUENTRE Y SIN NINGUNA GARANTIA EXPRESA O IMPLICITA. NI EL CONDADO NI EL DEPARTAMENTO DEL ALGUACIL GARANTIZAN O REALIZAN ALGUNA DECLARACION RESPECTO AL TITULO, CONDICION, HABITABILIDAD, COMERCIABILIDAD O APTITUD PARA UN PROPOSITO PARTICULAR. LOS COMPRADORES SE RESPONSABILIZAN POR TODOS LOS RIESGOS.

EN ALGUNAS SITUACIONES, UN LOTE DE CINCO ACRES O MENOS SE PRESUME QUE SE DESTINA PARA USO RESIDENCIAL. SIN EMBARGO, SI LA PROPIEDAD CARECE DE SERVICIOS DE AGUA POTABLE O ALCANTARILLADO, LA PROPIEDAD PUEDE NO CALIFICAR PARA USO RESIDENCIAL. SI UN COMPRADOR POTENCIAL DESEA MAS INFORMACION DEBE PREGUNTAR O CONSULTAR A UN ASESOR PRIVADO.

9th IN TESTIMONY WHEREOF Nueces County has caused these presents to be executed this day of July, 2014.

By: _____
Samuel L. Neal, Jr.
County Judge
Nueces County

STATE OF TEXAS X

COUNTY OF NUECES X

This instrument was acknowledged before me on this 9th day of July, 2014, by Samuel L. Neal, Jr., Nueces County Judge.

VICKI J KEACH
My Commission Expires
February 20, 2018

_____
Notary Public, State of Texas
Commission Expires: 02-20-2018

After recording return to:

Linebarger Goggan Blair & Sampson, LLP
500 N. Shoreline, Suite 1111
Corpus Christi, Texas 78401

Doc# 2014027360
Pages 3
07/17/2014 2:11PM
Official Records of
NUECES COUNTY
DIANA T. BARRERA
COUNTY CLERK
Fees $23.00

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of Race, Color, Relision, Sex, Handicap, Familial Status, or National Orisin is invalid and unenforceable under FEDERAL LAW, 3/12/89.

STATE OF TEXAS
COUNTY OF NUECES
I hereby certify that this instrument was FILED in file number sequence on the date and at the time stamped herein by me, and was duly RECORDED in the Official Public Records of
Nueces County, Texas
Diana T. Barrera

Doc# 2014027362

Notice of confidentiality rights: If you are a natural person, you may remove or strike any or all of the following information from any instrument that transfers an interest in real property before it is filed for record in the public records: your social security number or your driver's license number.

TAX RESALE DEED

STATE OF TEXAS X

X **KNOW ALL MEN BY THESE PRESENTS**

COUNTY OF NUECES X

That **Nueces County, Trustee**, acting through the presiding officer of its governing body, hereunto duly authorized by resolution and order of said governing body which is duly recorded in its official Minutes, hereinafter called grantor, for and in consideration of the sum of $360.00 cash in hand paid by

City of Corpus Christi
POB 9277
Corpus Christi, TX 78469-9277

hereinafter called grantee(s), the receipt of which is acknowledged and confessed, has quitclaimed and by these presents does quitclaim unto said grantee(s) all of the right, title and interest of grantor and all other taxing units interested in the tax foreclosure judgment against the property herein described, acquired by tax foreclosure sale heretofore held under **Suit No. 08-4383-F, Nueces County vs. Jerald H. Johnson, Et Al** in the district court of said county, said property being located in Nueces County, Texas, and described as follows:

Lot 142, Riverside Addition, Unit Three, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nuece County, Texas.

TO HAVE AND TO HOLD the said premises, together with all and singular the rights, privileges, and appurtenances thereto in any manner belonging unto the said grantee(s), their heirs and assigns forever, so that neither the grantor, nor any other taxing unit interested in said tax foreclosure judgment, nor any person claiming under it and them, shall at any time hereafter have, claim or demand any right or title to the aforesaid premises or appurtenances, or any part thereof.

Taxes for the present year are to be paid by grantee(s) herein.

This deed is given expressly subject to any existing right of redemption remaining in the former owner of the property under the provisions of law and also subject to any recorded restrictive covenants running with the land, and valid easements of record as of the date of this sale, if such covenants or easements were recorded prior to January 1 of the year the tax lien(s) arose.

THIS SALE IS BEING CONDUCTED PURSUANT TO STATUTORY OR JUDICIAL REQUIREMENTS. BIDDERS WILL BID ON THE RIGHTS, TITLE, AND INTERESTS, IF ANY, OWNED BY THE DEFENDANT(S) IN SUCH SUIT(S) IN AND TO THE REAL PROPERTY OFFERED.

THE PROPERTY IS SOLD AS IS, WHERE IS, AND WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. NEITHER THE COUNTY NOR THE SHERIFF'S DEPARTMENT OR CONSTABLE WARRANTS OR MAKES ANY REPRESENTATIONS ABOUT THE PROPERTY'S TITLE, CONDITION, HABITABILITY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. BUYERS ASSUME ALL RISKS.

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****

ESTA VENTA SE REALIZA CONFORME A LOS REQUISITOS ESTATUTARIOS O JUDICIALES. LOS POSTORES LICITARAN POR LOS DERECHOS, TITULOS E INTERESES, SI FUESE EL CASO, DE LA PROPIEDAD INMUEBLE QUE SE OFRECE.

LA PROPIEDAD SE VENDE TAL CUAL, DONDE SE ENCUENTRE Y SIN NINGUNA GARANTIA EXPRESA O IMPLICITA. NI EL CONDADO NI EL DEPARTAMENTO DEL ALGUACIL GARANTIZAN O REALIZAN ALGUNA DECLARACION RESPECTO AL TITULO, CONDICION, HABITABILIDAD, COMERCIABILIDAD O APTITUD PARA UN PROPOSITO PARTICULAR. LOS COMPRADORES SE RESPONSABILIZAN POR TODOS LOS RIESGOS.

EN ALGUNAS SITUACIONES, UN LOTE DE CINCO ACRES O MENOS SE PRESUME QUE SE DESTINA PARA USO RESIDENCIAL. SIN EMBARGO, SI LA PROPIEDAD CARECE DE SERVICIOS DE AGUA POTABLE O ALCANTARILLADO, LA PROPIEDAD PUEDE NO CALIFICAR PARA USO RESIDENCIAL. SI UN COMPRADOR POTENCIAL DESEA MAS INFORMACION DEBE PREGUNTAR O CONSULTAR A UN ASESOR PRIVADO.

9th IN TESTIMONY WHEREOF Nueces County has caused these presents to be executed this day of July, 2014.

By: _____
Samuel L. Neal, Jr.
County Judge
Nueces County

STATE OF TEXAS X

COUNTY OF NUECES X

This instrument was acknowledged before me on this 9th day of July, 2014, by Samuel L. Neal, Jr., County Judge.

VICKI J KEACH
My Commission Expires
February 20, 2018

Vicki Keach
Notary Public, State of Texas
Commission Expires: 02-20-2018

After recording return to:

Linebarger Goggan Blair & Sampson, LLP
500 N. Shoreline, Suite 1111
Corpus Christi, Texas 78401

Doc# 2014027362
Pages 3
07/17/2014 2:11PM
Official Records of
NUECES COUNTY
DIANA T. BARRERA
COUNTY CLERK
Fees $23.00

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of Race, Color, Relision, Sex, Handicap, Familial Status, or National Orisin is invalid and unenforceable under FEDERAL LAW, 3/12/89.

STATE OF TEXAS
COUNTY OF NUECES
I hereby certify that this instrument was FILED in file number sequence on the date and at the time stamped herein by me, and was duly RECORDED in the Official Public Records of Nueces County, Texas
Diana T. Barrera

Diana T. Barrera

Notice of confidentiality rights: If you are a natural person, you may remove or strike any or all of the following information from any instrument that transfers an interest in real property before it is filed for record in the public records: your social security number or your driver's license number.

TAX RESALE DEED

STATE OF TEXAS X

X **KNOW ALL MEN BY THESE PRESENTS**

COUNTY OF NUECES X

That **Nueces County, Trustee**, acting through the presiding officer of its governing body, hereunto duly authorized by resolution and order of said governing body which is duly recorded in its official Minutes, hereinafter called grantor, for and in consideration of the sum of $593.00 cash in hand paid by

City of Corpus Christi
POB 9277
Corpus Christi, TX 78469-9277

hereinafter called grantee(s), the receipt of which is acknowledged and confessed, has quitclaimed and by these presents does quitclaim unto said grantee(s) all of the right, title and interest of grantor and all other taxing units interested in the tax foreclosure judgment against the property herein described, acquired by tax foreclosure sale heretofore held under **Suit No. 03-5853-B, Nueces County vs. Perry Etheridge, Et Al** in the district court of said county, said property being located in Nueces County, Texas, and described as follows:

Lots 155 and 156, Riverside Addition Unit Three, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nuece County, Texas

TO HAVE AND TO HOLD the said premises, together with all and singular the rights, privileges, and appurtenances thereto in any manner belonging unto the said grantee(s), their heirs and assigns forever, so that neither the grantor, nor any other taxing unit interested in said tax foreclosure judgment, nor any person claiming under it and them, shall at any time hereafter have, claim or demand any right or title to the aforesaid premises or appurtenances, or any part thereof.

Taxes for the present year are to be paid by grantee(s) herein.

This deed is given expressly subject to any existing right of redemption remaining in the former owner of the property under the provisions of law and also subject to any recorded restrictive covenants running with the land, and valid easements of record as of the date of this sale, if such covenants or easements were recorded prior to January 1 of the year the tax lien(s) arose.

THIS SALE IS BEING CONDUCTED PURSUANT TO STATUTORY OR JUDICIAL REQUIREMENTS. BIDDERS WILL BID ON THE RIGHTS, TITLE, AND INTERESTS, IF ANY, OWNED BY THE DEFENDANT(S) IN SUCH SUIT(S) IN AND TO THE REAL PROPERTY OFFERED.

THE PROPERTY IS SOLD AS IS, WHERE IS, AND WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. NEITHER THE COUNTY NOR THE SHERIFF'S DEPARTMENT OR CONSTABLE WARRANTS OR MAKES ANY REPRESENTATIONS ABOUT THE PROPERTY'S TITLE, CONDITION, HABITABILITY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. BUYERS ASSUME ALL RISKS.

IN SOME SITUATIONS, A LOT OF FIVE ACRES OR LESS IS PRESUMED TO BE INTENDED FOR RESIDENTIAL USE. HOWEVER, IF THE PROPERTY LACKS WATER OR WASTEWATER SERVICE, THE PROPERTY MAY NOT QUALIFY FOR RESIDENTIAL USE. A POTENTIAL BUYER WHO WOULD LIKE MORE INFORMATION SHOULD MAKE ADDITIONAL INQUIRIES OR CONSULT WITH PRIVATE COUNSEL.

****

ESTA VENTA SE REALIZA CONFORME A LOS REQUISITOS ESTATUTARIOS O JUDICIALES. LOS POSTORES LICITARAN POR LOS DERECHOS, TITULOS E INTERESES, SI FUESE EL CASO, DE LA PROPIEDAD INMUEBLE QUE SE OFRECE.

LA PROPIEDAD SE VENDE TAL CUAL, DONDE SE ENCUENTRE Y SIN NINGUNA GARANTIA EXPRESA O IMPLICITA. NI EL CONDADO NI EL DEPARTAMENTO DEL ALGUACIL GARANTIZAN O REALIZAN ALGUNA DECLARACION RESPECTO AL TITULO, CONDICION, HABITABILIDAD, COMERCIABILIDAD O APTITUD PARA UN PROPOSITO PARTICULAR. LOS COMPRADORES SE RESPONSABILIZAN POR TODOS LOS RIESGOS.

EN ALGUNAS SITUACIONES, UN LOTE DE CINCO ACRES O MENOS SE PRESUME QUE SE DESTINA PARA USO RESIDENCIAL. SIN EMBARGO, SI LA PROPIEDAD CARECE DE SERVICIOS DE AGUA POTABLE O ALCANTARILLADO, LA PROPIEDAD PUEDE NO CALIFICAR PARA USO RESIDENCIAL. SI UN COMPRADOR POTENCIAL DESEA MAS INFORMACION DEBE PREGUNTAR O CONSULTAR A UN ASESOR PRIVADO.

IN TESTIMONY WHEREOF Nueces County has caused these presents to be executed this 9th day of July, 2014.

By: _____
Samuel L. Neal, Jr.
County Judge
Nueces County

STATE OF TEXAS X

COUNTY OF NUECES X

This instrument was acknowledged before me on this 9th day of July, 2014, by Samuel L. Neal, Jr., Nueces County Judge.

VICKI J KEACH
My Commission Expires
February 20, 2018

Vicki Keach
Notary Public, State of Texas
Commission Expires: 02-20-2018

After recording return to:

Linebarger Goggan Blair & Sampson, LLP
500 N. Shoreline, Suite 1111
Corpus Christi, Texas 78401

Doc# 2014027355
Pages 3
07/17/2014 2:11PM
Official Records of
NUECES COUNTY
DIANA T. BARRERA
COUNTY CLERK
Fees $23.00

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of Race, Color, Relision, Sex, Handicap, Familial Status, or National Orisin is invalid and unenforceable under FEDERAL LAW, 3/12/89.

STATE OF TEXAS
COUNTY OF NUECES
I hereby certify that this instrument was FILED in file number sequence on the date and at the time stamped herein by me, and was duly RECORDED in the Official Public Records of Nueces County, Texas
Diana T. Barrera

Diana T. Barrera

Notice of confidentiality rights: If you are a natural person, you may remove or strike any or all of the following information from any instrument that transfers an interest in real property before it is filed for record in the public records: your social security number or your driver's license number.

TAX RESALE DEED

STATE OF TEXAS X

X **KNOW ALL MEN BY THESE PRESENTS**

COUNTY OF NUECES X

That **Nueces County, Trustee**, acting through the presiding officer of its governing body, hereunto duly authorized by resolution and order of said governing body which is duly recorded in its official Minutes, hereinafter called grantor, for and in consideration of the sum of $310.00 cash in hand paid by

City of Corpus Christi
POB 9277
Corpus Christi, TX 78469-9277

hereinafter called grantee(s), the receipt of which is acknowledged and confessed, has quitclaimed and by these presents does quitclaim unto said grantee(s) all of the right, title and interest of grantor and all other taxing units interested in the tax foreclosure judgment against the property herein described, acquired by tax foreclosure sale heretofore held under **Suit No. 03-7073-C, Nueces County vs. Robert K. Clawson, Sr., Et Al** in the district court of said county, said property being located in Nueces County, Texas, and described as follows:

Lot 152, Riverside Addition Unit 3, an addition to Nueces County, Texas, according to the map or plat thereof, recorded in Volume 23, Page 23, Map Records of Nuece County, Texas

TO HAVE AND TO HOLD the said premises, together with all and singular the rights, privileges, and appurtenances thereto in any manner belonging unto the said grantee(s), their heirs and assigns forever, so that neither the grantor, nor any other taxing unit interested in said tax foreclosure judgment, nor any person claiming under it and them, shall at any time hereafter have, claim or demand any right or title to the aforesaid premises or appurtenances, or any part thereof.

Taxes for the present year are to be paid by grantee(s) herein.

This deed is given expressly subject to any existing right of redemption remaining in the former owner of the property under the provisions of law and also subject to any recorded restrictive covenants running with the land, and valid easements of record as of the date of this sale, if such covenants or easements were recorded prior to January 1 of the year the tax lien(s) arose.

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By: _____
Samuel L. Neal, Jr.
County Judge
Nueces County

STATE OF TEXAS X

COUNTY OF NUECES X

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VICKI J KEACH
My Commission Expires
February 20, 2018

Vicki Keach
Notary Public, State of Texas
Commission Expires: 02-20-2018

After recording return to:

Linebarger Goggan Blair & Sampson, LLP
500 N. Shoreline, Suite 1111
Corpus Christi, Texas 78401

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STATE OF TEXAS
COUNTY OF NUECES
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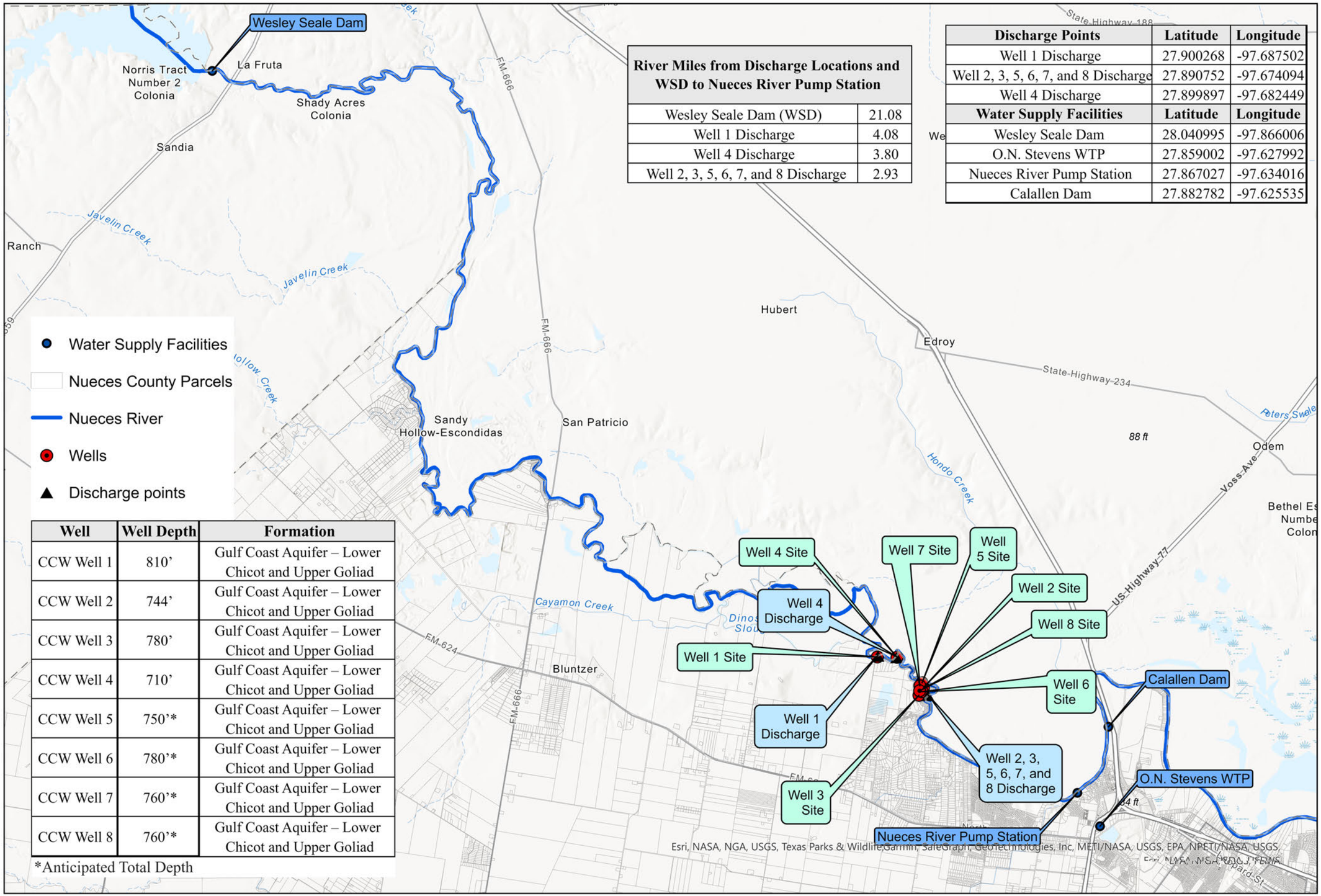
Diana T. Barrera

Diana T. Barrera



River Miles from Discharge Locations and WSD to Nueces River Pump Station	
Wesley Seale Dam (WSD)	21.08
Well 1 Discharge	4.08
Well 4 Discharge	3.80
Well 2, 3, 5, 6, 7, and 8 Discharge	2.93

Discharge Points	Latitude	Longitude
Well 1 Discharge	27.900268	-97.687502
Well 2, 3, 5, 6, 7, and 8 Discharge	27.890752	-97.674094
Well 4 Discharge	27.899897	-97.682449
Water Supply Facilities	**Latitude**	**Longitude**
Wesley Seale Dam	28.040995	-97.866006
O.N. Stevens WTP	27.859002	-97.627992
Nueces River Pump Station	27.867027	-97.634016
Calallen Dam	27.882782	-97.625535

- Water Supply Facilities
- Nueces County Parcels
- Nueces River
- Wells
- ▲ Discharge points

Well	Well Depth	Formation
CCW Well 1	810’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 2	744’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 3	780’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 4	710’	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 5	750’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 6	780’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 7	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad
CCW Well 8	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad

*Anticipated Total Depth

REVISION NO.	DATE	BY	DESCRIPTION
Draft			

Corpus Christi Water
Serving the Coastal Bend

CITY OF CORPUS CHRISTI

NUECES RIVER GROUNDWATER PROJECT

SHEET 1 OF 2

05/06/2025

Discharge Points	Latitude	Longitude
Well 1 Discharge	27.900268	-97.687502
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Well 4 Discharge	27.899897	-97.682449
Water Supply Facilities	**Latitude**	**Longitude**
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CCW Well 8	760’*	Gulf Coast Aquifer – Lower Chicot and Upper Goliad

*Anticipated Total Depth

Well 1 Site
Well 1 Discharge
Well 4 Discharge
Well 4 Site
Well 5 Site
Well 7 Site
Well 2 Site
Well 6 Site
Well 8 Site
Well 3 Site
Well 2, 3, 5, 6, 7, and 8 Discharge
14 ft
12 ft
11 ft
11 ft
26 ft
County Road 73
County Road 73
County Road 73
Coastal Pit Rd
Imrod Cir

0.15 0.07 0 0.15 0.3 0.45 0.6 Miles

DESCRIPTION | BY | DATE | REVISION NO.
Draft

Corpus Christi Water CCW Serving the Coastal Bend

CITY OF CORPUS CHRISTI

NUECES RIVER GROUNDWATER PROJECT

05/06/2025

Date: March 20, 2025

Texas Commission on Environmental Quality
Water Availability Division
P. O. Box 13087
MC-160
Austin, TX 78711-3087

LEGAL DEPARTMENT

City Attorney's Office
City Hall
PO Box 9277
Corpus Christi
Texas 78469-9277
Phone 361-826-3360
Fax 361-826-3239
www.cctexas.com

Municipal Court
Prosecutor's Office
120 N. Chaparral
Corpus Christi
Texas 78401
Phone 361-886-2530
Fax 361-886-2567

Risk Management
PO Box 9277
Corpus Christi
Texas 78469-9277
Phone 361-826-3680
Fax 361-826-3697

Re: City of Corpus Christi Application for a Temporary Water Rights Permit Application ("the Application")

To whom it may concern:

This letter is provided in response to the requirement of Item 2 on page 3 of the Application for written evidence that the person signing the Application meets the signatory requirements in Title 30, Texas Administrative Code, Section 295.14 (5) which provides as follows:

(5) If the applicant is a corporation, public district, county, municipality, or other corporate entity, the application shall be signed by a duly authorized official. *Written evidence in the form of bylaws, charters, or resolutions which specify the authority of the official to take such action shall be submitted.*

Enclosed please find a Certification of Public Records from the City of Corpus Christi City Charter and Code of Ordinances evidencing the following: 1) the City Manager is the Chief Executive Officer of the City of Corpus Christi; 2) the City Manager is responsible for the proper administration of all the city affairs; and 3) the City Manager is authorized to approve rules and regulations necessary for enforcement of the policies determined by the City Council. In addition, the Certification of Public Records includes a copy of City Council Motion 2025-007 which authorized the City Manager to enter into contracts with landowners for the lease of sites for wells to provide water to the City, and the Application is needed to move forward with use of the wells. Further, the City Manager has delegated authority to the Chief Operations Officer to sign the TCEQ Application on behalf of the City Manager. Please see enclosed Delegation of Signature Authority Memo, page 4.

These documents evidence that the attached City of Corpus Christi Application for a Temporary Water Rights Permit has been signed by a duly authorized official, the Chief Operations Officer on behalf of the City Manager.

It is important to note that the City is located in Nueces County which has been declared a disaster area due to serious drought conditions by Proclamation of the Governor. If there are any questions concerning this matter, please contact me at (361) 826-3873 or (361) 826-3361.

Sincerely,

Miles K. Risley
City Attorney
City of Corpus Christi, Texas

CITY OF CORPUS CHRISTI
CERTIFICATION OF PUBLIC RECORDS

THE STATE OF TEXAS §
COUNTY OF NUECES §

I, the undersigned City Secretary of the City of Corpus Christi, Texas, so certify that the following is a true and correct copy of following sections of City Charter, the Corpus Christi Code of Ordinances, and a true and correct copy of City Council Motion 2025-007 as same appear in the Official Records of the City of Corpus Christi, Texas, of which the City Secretary's Office is the lawful custodian:

1) City Charter Article III. City Manager:
   Section 1. - Appointment; qualifications; term; removal; compensation;
   Section 2.- Powers and duties.
2)City Charter Article X. General Powers and Provisions, Section 2.-Contracts, subsection (a).
3)Corpus Christi Code of Ordinances Section 2-52 Rulemaking.
4) City Council Motion 2025-007 authorizing the City Manager to execute contracts with the landowners for the lease of sites for wells to provide water to City

WITNESSETH MY HAND and the Official Seal of the City of Corpus Christi, Texas, on this 13th day of March 2025.

Rebecca Huerta

Rebecca Huerta
City Secretary
Corpus Christi, Texas

City of Corpus Christi
Rebecca Huerta, City Secretary
P.O. Box 9277
Corpus Christi, Texas 78469-9277
(361) 826-3105
[redacted]

ARTICLE III. - CITY MANAGER

Sec. 1. - Appointment; qualifications; term; removal; compensation.

The council shall appoint a city manager who shall be the chief administrative and executive officer of the city. No member of the council shall, during the time for which he or she is elected, be chosen as city manager. The city manager may be removed at the will and pleasure of the council by a majority vote of the entire membership of the council. The action of the council in removing the city manager shall be final. In the case of the absence or disability of the city manager, the council may designate some qualified person to perform the duties of the office during such absence or disability. The city manager shall receive such compensation as may be fixed by the council.

Sec. 2. - Powers and duties.

The powers and duties of the city manager shall be as follows:

(a)To see that all laws and ordinances are enforced.

(b)To exercise control over all city departments and subdivisions thereof except as otherwise provided by Charter.

(c)To execute all appropriately authorized deeds, contracts, agreements or franchises and to see that all terms and conditions imposed in favor of the city or its inhabitants in any such transactions are faithfully kept and performed, and in case of any violation thereof to take such action as may be necessary and proper to enforce or terminate the same.

(d)To attend all meetings of the council, with the right to take part in the discussion, but having no vote and to receive notice of all special meetings in the same manner as such notice is given to members of the council. Any action taken at any meeting of the council of which the city manager has not been notified shall be of no force or effect, except, however, the action of designating a person to perform those duties in the city manager's absence.

(e)To recommend such measures to the council as may be deemed necessary or expedient.

(f)To keep the council fully advised as to the financial condition and needs of the city and provide them quarterly financial reports.

(g)To act as budget officer, and, as such, prepare and submit the annual budget to the council.

(h)To operate the city within its budget.

(i)To be an ex officio member of all boards or commissions without vote, but with the right of veto of any proposed expenditures the manager shall deem unlawful or not in the best interest of the city.

(j)To perform such other duties as may be prescribed by the city Charter or by ordinance or resolution of the council; and to be responsible to the council for the proper administration of all the city affairs.

(k)To appoint and remove all officers and employees not otherwise specified by this Charter.

CC City Charter ARTICLE X. - GENERAL POWERS AND PROVISIONS

Sec. 2. - Contracts.

(a)All contracts shall be authorized by the city council, except that the city manager may authorize contracts which do not require expenditures exceeding the limit at which competitive bids are required under the Texas Local Government Code, as amended, and may exceed that sum in the case of emergency which shall be reported to the council.

CC City Code Sec. 2-52. - Rulemaking.

The chief of staff, chief financial officer, chief operating officers, assistant city managers, and all department and division heads shall have the authority to promulgate rules and regulations necessary or advisable for the enforcement of the policies determined by the city council and this Code of Ordinances, subject to the approval of the city manager. Every rule or regulation issued shall be described in writing and filed with the city secretary as a public record, and all persons shall be charged with notice of the contents of same.

City of Corpus Christi

January 14, 2025

E-Session Item: M2025-007

1201 Leopard Street
Corpus Christi, TX 78401
cctexas.com

File Number: 25-0001 **Enactment Number: M2025-007**

Motion to authorize the City Manager to execute contracts with landowners for the lease of sites for wells to provide water to City, with a royalty based on CPI inflated 12 cents per 1000 gallons from 1984 leases with CPI clause, with advance royalties and surface damage clauses to be negotiated on each property, with a total expenditure of up to $2,080,500 for the initial year of pumping up to 15mgd, subject to appropriation of funds for said purpose up to 5 years.

At a meeting of the City Council on 1/14/2025, this E-Session Item was passed after executive session.

Aye: 8 Mayor Guajardo, Council Member Barrera, Council Member Hernandez, Council Member Campos, Council Member Roy, Council Member Cantu, Council Member Scott, and Council Member Paxson

Nay: 1 Council Member Vaughn

Abstained: 0

Paulette Guajardo, Mayor

Attest: _____ for

Rebecca Huerta, City Secretary

MEMORANDUM

TO: Rebecca Huerta, City Secretary

FROM: Peter Zanoni, City Manager

RE: Delegation of Signature Authority

DATE: February 19, 2025

I authorize those holding the positions shown in the attached chart and delegate to the persons holding those positions the authority to sign the contracts and other documents identified therein, as long as funds to fully cover expenditures pursuant to said documents are identified and clearly documented by the signing person as fully appropriated.

Peter Zanoni
City Manager

ATTACHMENT: *Chart of Delegation of Signature Authority & Parameters For Signing Contracts & Documents v. 2/2025*

CC: Michael Rodriguez, Deputy City Manager
Heather Hurlbert, Assistant City Manager
Sony Peronel, Assistant City Manager
Drew Molly, Chief Operations Officer
Department Directors

INNER HARBOR DESAL PROGRAM MANAGEMENT OFFICE	Delegated To	Parameters of Authority Delegated
Contracts, Amendments, Renewals & Extensions	DD	Council approval required over $50,000
Change Orders	DD	Council approval required over $100,000
Emergency Contracts	DD	Exempt from Competitve Bidding Requirements; Over $50,000 requires CM Approval of Emergency Declaration Memo
Financing/Loan Applications, Agreements & associated docs	DD	Council approval may be required
Grant Applications, Agreements & associated docs	DD	Council approval may be required; CM if required by grant
Interlocal Cooperation Agreements	DD	after Council approval
Licenses, Permits, and Rights of Entry	DD	Council approval required over $50,000
Texas Department of Transportation (TXDOT) Applications, Agreements, Amendments, Permits	DD	Council approval required over $50,000
United States Army Corps of Engineer (USACE) Applications, Agreements, Amendments, Permits, Documents	DD	Council approval required over $50,000
Work Authorizations and Task Orders authorized under a Council-approved Master Agreement (FMAC, IDIQ, MSA, etc.)	DD	Council approval required for FMAC Task Orders over $500,000

PUBLIC WORKS DOCUMENTS	Delegated To	Parameters of Authority Delegated
Emergency Contracts	DD	Exempt from Competitve Bidding Requirements; Over $50,000 requires CM Approval of Emergency Declaration Memo
Grant Applications, Agreements & associated docs	DD	Council approval may be required; CM if required by grant
Permits, Licenses, Rights of Entry, CITY IS GRANTEE	DD	
Right of Way Licenses and Permits	TE	
Right of Way Management Agreements (includes AEP Agreements)	DD	Council approval required over $50,000
Task Orders Authorized Under a Council-approved Master Agreement (SPMP, IDIQ)	DD	

SOLID WASTE DOCUMENTS	Delegated To	Parameters of Authority Delegated
Emergency Contracts	DD	Exempt from Competitve Bidding Requirements; Over $50,000 requires CM Approval of Emergency Declaration Memo
TCEQ Permit Applications & Modifications	DD	DD on behalf of CM
TCEQ Reports related to Solid Waste Services & Facilities	DD	

WATER & WASTEWATER DOCUMENTS	Delegated To	Parameters of Authority Delegated
Contracts for Monitoring, Metering or Surveying Water Sources	COO	Council approval required over $50,000
Contracts for Purchase of Water	COO	Council approval required over $50,000
Contracts for Sale of Untreated Water	COO	after Council approval; See City Code Ch 55; See Charter Art. IX, Sec. 11
Contracts for Sale of Treated Water	COO	Council approval may be required
Easements, Temporary Licenses and MOUs pursuant to authorized Water Contracts	COO	Council approval may be required
Effluent/Recycled Water Agreements	COO	per Recycled Water ORD Code Chapter 55, Art. XIX & Sec. 55-569; consistent w/annual budget
Emergency Contracts	DD	Exempt from competitve bidding requirements; over $50,000 requires CM approval of Emergency Declaration Memo
Grant Applications, Agreements & associated docs	DD	Council approval may be required; CM if required by grant
Nueces River Authority Annual Work Plan and Budget	COO	per Resolution 026340 and Interlocal Agreement with NRA
Revocable Agreements for Reservation of Water	COO	Council approval required over $50,000
TCEQ Agreed Orders	COO	
TCEQ Permit Applications	COO	ACM on behalf of CM

ABBREVIATED TERMS

Assistant City Manager in charge of dept. seeking approval	**ACM**	DCM & COO have ACM signing authority
Assistant Director	**AD**	
Chief Operations Officer	**COO**	
City Manager	**CM**	
City Treasurer	**CT**	
Department Director	**DD**	
Deputy City Manager	**DCM**	

PROCLAMATION

BY THE

Governor of the State of Texas

TO ALL TO WHOM THESE PRESENTS SHALL COME:

WHEREAS, I, GREG ABBOTT, Governor of the State of Texas, issued a disaster proclamation on July 8, 2022, as amended and renewed in a number of subsequent proclamations, certifying that exceptional drought conditions posed a threat of imminent disaster in several counties; and

WHEREAS, the Texas Division of Emergency Management has confirmed that those same drought conditions persist in certain counties in Texas;

NOW, THEREFORE, in accordance with the authority vested in me by Section 418.014 of the Texas Government Code, I do hereby amend and renew the aforementioned proclamation and declare a disaster in Aransas, Atascosa, Bandera, Bastrop, Bee, Bexar, Blanco, Brewster, Burnet, Caldwell, Calhoun, Cameron, Childress, Clay, Collingsworth, Colorado, Comal, Crane, Culberson, Dimmit, Donley, Edwards, El Paso, Foard, Franklin, Frio, Gillespie, Goliad, Grayson, Guadalupe, Hall, Hardeman, Hays, Hidalgo, Hudspeth, Jeff Davis, Jim Wells, Karnes, Kendall, Kerr, Kinney, Kleberg, Lampasas, LaSalle, Lavaca, Live Oak, Llano, Loving, Lubbock, Mason, Matagorda, Maverick, Medina, Midland, Mitchell, Montgomery, Nueces, Pecos, Presidio, Real, Reeves, San Patricio, Scurry, Terrell, Travis, Uvalde, Val Verde, Victoria, Ward, Washington, Wharton, Wichita, Willacy, Williamson, Wilson, Winkler, Zapata and Zavala Counties.

Pursuant to Section 418.017 of the Texas Government Code, I authorize the use of all available resources of state government and of political subdivisions that are reasonably necessary to cope with this disaster.

Pursuant to Section 418.016 of the Texas Government Code, any regulatory statute prescribing the procedures for conduct of state business or any order or rule of a state agency that would in any way prevent, hinder, or delay necessary action in coping with this disaster shall be suspended upon written approval of the Office of the Governor. However, to the extent that the enforcement of any state statute or administrative rule regarding contracting or procurement would impede any state agency's emergency response that is necessary to protect life or property threatened by this declared disaster, I hereby authorize the suspension of such statutes and rules for the duration of this declared disaster.

In accordance with the statutory requirements, copies of this proclamation shall be filed with the applicable authorities.

IN TESTIMONY WHEREOF, I have hereunto signed my name and have officially caused the Seal of State to be affixed at my office in the City of Austin, Texas, this the 21st day of February, 2025.

GREG ABBOTT
Governor

FILED IN THE OFFICE OF THE SECRETARY OF STATE
3:00 PM O'CLOCK

FEB 21 2025

ATTESTED BY:

Jane Nelson

JANE NELSON
Secretary of State

FILED IN THE OFFICE OF THE
SECRETARY OF STATE
3:00 P.M. O'CLOCK

FEB 21 2025

Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

☒ New Permit or Registration Application

☐ New Activity – modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

☒ Requires public notice,

☐ Considered to have significant public interest, **and**

☐ Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

If all the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2 and submit the form.

☒ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

City of Corpus Christi proposes, due to the. ongoing drought, as recognized by Governor Abbott's current diaster drought declartions, to divert groundwater (originating outside a groundwater district) into the Nueces River below Lake Corpus Christi and subsequently redivert this water. The City proposes to discharge an annual maximum of 15,680 acre-feet and redivert said water (minus 7% carriage losses) for a period of three years. The discharged water will be diverted at the diversion point and diversion rate authorized by CA-21-2464, as amended. No increase in the authorized diversion rater is requested. The water will be used for municipal, industrial, and mining purposes.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)

- ☐ Texas Land Application Permit (TLAP)
- ☐ State Only Concentrated Animal Feeding Operation (CAFO)
- ☐ Water Treatment Plant Residuals Disposal Permit

☐ Class B Biosolids Land Application Permit

☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water

☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water

☐ Add a New or Existing Reservoir

☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

(City)

(County)

(Census Tract)
Please indicate which of these three is the level used for gathering the following information.

☐ City ☐ County ☐ Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

(b) Per capita income for population near the specified location

(c) Percent of minority population and percent of population by race within the specified location

(d) Percent of Linguistically Isolated Households by language within the specified location

(e) Languages commonly spoken in area by percentage

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☐ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☐ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☐ Yes ☐ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☐ Yes ☐ No

(e) If a public meeting is held, will a translator be provided if requested?

☐ Yes ☐ No

(f) Hard copies of the application will be available at the following (check all that apply):

☐ TCEQ Regional Office ☐ TCEQ Central Office

☐ Public Place (specify)

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

CERTIFICATE OF ADJUDICATION

CERTIFICATE OF ADJUDICATION: 21-2464 OWNER: City of Corpus Christi
P. O. Box 9277
Corpus Christi, TX 78408

Lower Nueces River Supply
Water District
P. O. Box 1340
Corpus Christi, TX 78403

COUNTIES: Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio and Willacy

PRIORITY DATES: December 26, 1913, May 4, 1914, May 21, 1931, September 15, 1952 and January 15, 1925

WATERCOURSE: Atascosa River, Frio River and Nueces River

BASIN: Nueces River

WHEREAS, by final decree of the 214th Judicial District Court of Nueces County, Texas, in Cause No. 82-3020-F, In Re: The Adjudication of Water Rights in the Lower Nueces River Segment of the Nueces River Basin, dated September 23, 1982, a right was recognized under Certified Filing 64, Permit 51, Permit 1177, Permit 933 ABC, Permit 1604 and Permit 1656 authorizing the City of Corpus Christi and the Lower Nueces River Water Supply District to appropriate waters of the State of Texas as set forth below;

NOW, THEREFORE, this certificate of adjudication to appropriate waters of the State of Texas in the Nueces River Basin is issued to the City of Corpus Christi (hereinafter City) and the Lower Nueces River Water Supply District (hereinafter Nueces District) subject to the following terms and conditions;

1. IMPOUNDMENT

A. Owner (Nueces District) is authorized to maintain an existing dam and reservoir (known as Wesley Seale Dam and Lake Corpus Christi) on the Nueces River and impound therein not to exceed 300,000 acre-feet of water. The dam is located in the Juan Delgado, et al Grant, Abstract 4, San Patricio County, and the Juan Jose De La Garza Montemayor et al Survey, Abstract 296, Jim Wells County, Texas.

B. Owner (City) is authorized to maintain an existing dam and reservoir (known as Calallen Reservoir) on the Nueces River and impound therein not to exceed 1175 acre-feet of water. The dam is located in the Gregorio Farias Survey, Abstract 592, Nueces County, and the Victoriano Tares and Pedro Villareal Grant, Abstract 32, San Patricio County, Texas.

2. USE

A. Owner (City) is authorized to divert and use not to exceed 4872 acre-feet of water per annum from Calallen Reservoir on the Nueces River for municipal purposes.

B. Owner (City) is authorized to divert and use not to exceed 150,000 acre-feet of water per annum from Lake Corpus Christi on the Nueces River for municipal purposes.

C. Owner (City) is authorized to divert and use not to exceed 150,000 acre-feet of water per annum from Lake Corpus Christi on the Nueces River for industrial purposes.

D. Owner (City) is authorized to divert and use not to exceed 14 acre-feet of water per annum from Calallen Reservoir on the Nueces River for irrigation purposes.

E. Owner (City) is authorized to divert and use not to exceed 12 acre-feet of water per annum from the Nueces River for mining purposes.

F. Owners (City and Nueces District) are authorized to use the water impounded in Lake Corpus Christi for other non-consumptive purposes.

G. Owner (City) is authorized to use the bed and banks of the Atascosa River, the Frio River, and the Nueces River to convey and deliver into Lake Corpus Christi ground water which is released into the Atascosa River in Atascosa County, Texas.

3. DIVERSION

A. Location:

(1) At a point on the perimeter of Lake Corpus Christi in the Juan Jose De La Garza Montemayor et al Survey, Abstract 296, Jim Wells County, Texas.

(2) At the outlet works of Wesley Seale Dam in the Juan Jose De La Garza Montemayor et al Survey, Abstract 296, Jim Wells County, Texas.

(3) At five points on the perimeter of Calallen Reservoir in the Gregorio Farias Survey, Abstract 592, the Mariano Lopez De Herrera Survey, Abstract 606, Nueces County, and the Victoriano Tares and Pedro Villareal Grant, Abstract 32, San Patricio County, Texas.

B. Maximum Combined Rate: 339.68 cfs (152,460 gpm).

4. PRIORITY

The time priority of owners' right is as follows:

A. Storage

(1) 104 acre-feet of water stored in Calallen Reservoir above elevation 1.62 feet mean sea level has a priority date of May 4, 1914.

(2) 928 acre-feet of water stored in Galallen Reservoir below elevation 1.62 feet mean sea level, as well as the remainder of the storage in Calallen Reservoir above elevation 1.62 feet mean sea level, being 143 acre-feet of water, for a total of 1071 acre-feet, has a priority date of May 21, 1931.

(3) 300,000 acre-feet of water stored in Lake Corpus Christi has a priority date of September 15, 1952.

B. USE

(1) 675 acre-feet of water for municipal purposes has a priority date of December 26, 1913.

(2) 4054 acre-feet of water for municipal purposes has a priority date of May 4, 1914.

(3) 143 acre-feet of water for municipal purposes has a priority date of May 21, 1931.

(4) 150,000 acre-feet of water for municipal purposes has a priority date of January 15, 1925.

(5) 150,000 acre-feet of water for industrial purposes has a priority date of January 15, 1925.

(6) 14 acre-feet of water for irrigation purposes has a priority date of January 15, 1925.

(7) 12 acre-feet of water for mining purposes has a priority date of January 15, 1925.

(8) Use of the water impounded in Lake Corpus Christi for other non-consumptive purposes is September 15, 1952.

(9) The right to release, convey and deliver ground water produced in Atascosa County to Lake Corpus Christi has a priority date of September 14, 1951.

C. Rate

(1) 0.93 cfs (418 gpm) has a priority date of December 26, 1913.

(2) 5.6 cfs (2514 gpm) has a priority date of May 4, 1914.

(3) 313.50 cfs (140,708 gpm) has a priority date of May 21, 1931.

(4) 19.65 cfs (8820 gpm) has a priority date of January 15, 1925.

5. SPECIAL CONDITIONS

A. Owners (City and Nueces District) shall maintain suitable outlets in the aforesaid dams authorized herein to allow free passage of water that owners are not entitled to divert or impound.

B. Owner (Nueces District) is authorized to use the bed and banks of the Nueces River to convey and deliver water impounded in Lake Corpus Christi to the diversion points of owner (City) on the perimeter of Calallen Reservoir.

C. Owner (City) is authorized to make transbasin diversions from the Nueces River, the basin of origin, to the San Antonio-Nueces and the Nueces-Rio Grande Coastal Basins within the counties which make up the service area of the City of Corpus Christi.

D. Owner's (City's) use of the amount of water which is authorized for irrigation purposes is restricted to the maximum use of two acre-feet per acre for each acre actually irrigated.

E. Measurement of water diverted from Lake Corpus Christi shall be made at the outlet works of Wesley Seale Dam and at the point of diversion on the perimeter of the reservoir.

F. The area authorized to be served under this certificate shall be coterminous with the boundaries of the service area of the City of Corpus Christi. The owner shall notify the Department of all changes in the boundaries of said service area.

G. Owners (City and Nueces District) are required to allow as much of the flow of the Nueces River to flow through the Lake Corpus Christi Dam and Reservoir as is necessary to satisfy the prior downstream water rights of the Nueces County Water Control and Improvement District No. 3 (hereinafter Robstown District) and the City of Corpus Christi. However, owners (City and Nueces District) are authorized to impound and use all water flowing into Lake Corpus Christi which exceeds the prior diversion rate of the City of Corpus Christi and the Robstown District.

The locations of pertinent features related to this certificate are shown on Pages 2 and 4 of the Lower Nueces River Segment Certificates of Adjudication Maps, copies of which are located in the offices of the Texas Department of Water Resources and the office of the County Clerk.

This certificate of adjudication is issued subject to all terms, conditions and provisions in the final decree of the 214th Judicial District Court of Nueces County, Texas, in Cause No. 82-3020-F, In Re: The

Adjudication of Water Rights in the Lower Nueces River Segment of the Nueces River Basin, dated September 23, 1982, and supersedes all rights of the owner asserted in that cause.

This certificate of adjudication is issued subject to senior and superior water rights in the Nueces River Basin.

This certificate of adjudication is issued subject to the Rules of the Texas Department of Water Resources and its continuing right of supervision of State water resources consistent with the public policy of the State as set forth in the Texas Water Code.

TEXAS WATER COMMISSION

Felix McDonald, Chairman

DATE ISSUED:

JUL 30 1983

ATTEST:

Mary Ann Hefner, Chief Clerk

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AMENDMENT TO A CERTIFICATE OF ADJUDICATION

Certificate No. 21-2464A			Type:11.122
Owner:	City of Corpus Christi	Address:	P.O. Box 9277 Corpus Christi, TX 78469-9277
Filed:	June 7, 2013	Granted:	February 26, 2014
Purpose:	Municipal, Industrial, Mining, and Agricultural	County:	Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, & Willacy
Watercourse:	Nueces River	Watershed:	Nueces River Basin

WHEREAS, Certificate of Adjudication No. 21-2464 (Certificate) authorizes the City of Corpus Christi (Owner) to maintain two existing dams and reservoirs (Lake Corpus Christi & Calallen Reservoir) on the Nueces River, Nueces River Basin and impound therein a combined total not to exceed 301,175 acre-feet of water in Jim Wells and San Patricio Counties; and

WHEREAS, the Certificate also authorizes the diversion and use of 4,872 acre-feet of water per year for municipal purposes and 14 acre-feet for agricultural purposes from five points on Calallen Reservoir; 150,000 acre-feet for municipal purposes and 150,000 acre-feet for industrial purposes from a point on the perimeter of Lake Corpus Christi; and 12 acre-feet for mining purposes from the Nueces River; and

WHEREAS, the Certificate also authorizes the water impounded in Lake Corpus Christi for other non-consumptive purposes and the use of the bed and banks of the Atascosa River, Frio River and the Nueces River to convey groundwater into Lake Corpus Christi; and

WHEREAS, the Owner seeks to amend Certificate of Adjudication No. 21-2464 to add multiple uses to all of the authorized water under the Certificate for a total of 304,898 acre-feet of water per year for municipal, industrial, mining, and agricultural purposes and to authorize the diversion from anywhere along the perimeter of the reservoirs; and

WHEREAS, the Owner does not seek to increase the maximum combined diversion rate; and

WHEREAS, the Texas Commission on Environmental Quality finds that jurisdiction over the application is established; and

WHEREAS, this amendment, if granted, will be subject to administrative requirements of the South Texas Watermaster; and

WHEREAS, no requests for a contested case hearing were received for this application; and

WHEREAS, the Commission has complied with the requirements of the Texas Water Code and Rules of the Texas Commission on Environmental Quality in issuing this amendment;

NOW, THEREFORE, this amendment to Certificate of Adjudication No. 21-2464, designated Certificate of Adjudication No. 21-2464A, is issued to the City of Corpus Christi subject to the following terms and conditions:

1. USE

In lieu of the USE PARAGRAPH 2 A-E., the Owner is now authorized to divert and use the 304,898 acre-feet of water per year for municipal, industrial, mining, and agricultural purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy Counties.

2. DIVERSION

In addition to the previous authorizations, the Owner is also authorized to divert all water from anywhere along the perimeter of Lake Corpus Christi and Calallen Reservoir on the Nueces River in Jim Wells and San Patricio Counties.

3. CONSERVATION

Owner shall implement water conservation plans that provide for the utilization of those practices, techniques, and technologies that reduce or maintain the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, or prevent the pollution of water, so that a water supply is made available for future or alternative uses. Such plans shall include a requirement that in every wholesale water contract entered into, on or after the effective date of this amendment, including any contract extension or renewal, that each successive wholesale customer develop and implement conservation measures. If the customer intends to resell the water, then the contract for resale of the water shall have water conservation requirements so that each successive wholesale customer in the resale of the water will be required to implement water conservation measures.

4. SPECIAL CONDITIONS

A. Screens shall be utilized on any new diversion structure(s) to minimize entrainment or impingement of aquatic organisms.

B. Prior to the diversion of water authorized herein, Owner shall contact the South Texas Watermaster.

C. Owner shall install and maintain a measuring device which accounts for, within 5% accuracy, the quantity of water diverted from the point(s) authorized above in Paragraph 2. DIVERSION and maintain measurement records.

D. Owner shall allow representatives of the TCEQ reasonable access to the property to inspect the measuring device and records.

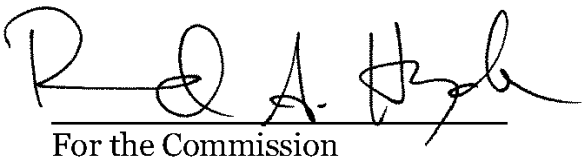
This amendment is issued subject to all terms, conditions and provisions contained in Certificate of Adjudication No. 21-2464, except as specifically amended herein.

This amendment is issued subject to all superior and senior water rights in the Nueces River Basin.

Owner agrees to be bound by the terms, conditions and provisions contained herein and such agreement is a condition precedent to the granting of this amendment.

All other matters requested in the application which are not specifically granted by this amendment are denied.

This amendment is issued subject to the Rules of the Texas Commission on Environmental Quality and to the right of continuing supervision of State water resources exercised by the Commission.



For the Commission

ISSUED: **February 26, 2014**