

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## NOTICE OF AN APPLICATION FOR A TEMPORARY WATER USE PERMIT

APPLICATION NO. 14124

City of Corpus Christi seeks a temporary water use permit, for a period of three years, to authorize the use of the bed and banks of the Nueces River, Nueces River Basin to convey groundwater for subsequent diversion and use for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties. More information on the application and how to participate in the permitting process is given below.

**APPLICATION.** City of Corpus Christi, Applicant, 1201 Leopard Street, Corpus Christi, TX 78401, has applied to the Texas Commission on Environmental Quality (TCEQ) for a Temporary Water Use Permit pursuant to Texas Water Code §§ 11.138 and 11.042 and TCEQ Rules Title 30 Texas Administrative Code (TAC) § 295.1, *et seq.* Mailed notice to the interjacent water right holders of record in the Nueces River Basin is required pursuant to Title 30 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).

Applicant seeks a Temporary Water Use Permit, for a period of three years, to authorize use of the bed and banks of the Nueces River, Nueces River Basin, to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer for subsequent diversion, at diversion rates and points authorized in Certificate of Adjudication No. 21-2464, as amended, for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.

Groundwater will be discharged at the following points on the Nueces River in Nueces County, ZIP Code 78380:

Discharge Point No. 1 is located at Latitude 27.9000268° N, Longitude 97.687502° W with a maximum discharge rate of 3.1 cfs (1,390 gpm).

Discharge Point No. 2 is located at Latitude 27.890752° N, Longitude 97.674094° W with a maximum discharge rate of 18.5 cfs (8,303 gpm).

Discharge Point No. 3 is located at Latitude 27.899372° N, Longitude 97.682934° W with a maximum discharge rate of 3.1 cfs (1,390 gpm).

Discharged groundwater will be diverted, at a maximum combined rate of 339.68 cfs (152,460 gpm), from two points authorized by Certificate of Adjudication No. 21-2464, as amended, ZIP Code 78410:

Diversion Point No. 1 is located at Latitude 27.867571° N, Longitude 97.633179° W.

Diversion Point No. 2 is located at Latitude 27.867309° N, Longitude 97.633639° W.

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. Additional information was received on June 13, 2025.

The Executive Director completed the technical review of the application and prepared a draft permit. The draft permit, if granted, would include special conditions including, but not limited to, water quality and aquatic life monitoring. The application, technical memoranda, and Executive Director's draft permit are available for viewing on the TCEQ web page at: [https://www.tceq.texas.gov/permitting/water\\_rights/wr-permitting/view-wr-pend-apps](https://www.tceq.texas.gov/permitting/water_rights/wr-permitting/view-wr-pend-apps). Alternatively, you may request a copy of the documents by contacting the TCEQ Office of the Chief Clerk by phone at (512) 239-3300 or by mail at TCEQ OCC, Notice Team (MC-105), P.O. Box 13087, Austin, Texas 78711.

**PUBLIC COMMENT / PUBLIC MEETING.** Written public comments and requests for a public meeting should be submitted to the Office of the Chief Clerk, at the address provided in the information section below, by July 28, 2025. A public meeting is intended for the taking of public comment, and is not a contested case hearing. A public meeting will be held if the Executive Director determines that there is a significant degree of public interest in the application.

**CONTESTED CASE HEARING.** The TCEQ may grant a contested case hearing on this application if a written hearing request is filed by July 28, 2025. The Executive Director may approve the application unless a written request for a contested case hearing is filed by July 28, 2025.

To request a contested case hearing, you must submit the following: (1) your name (or for a group or association, an official representative), mailing address, daytime phone number, and fax number, if any; (2) applicant's name and permit number; (3) the statement "[I/we] request a contested case hearing;" (4) a brief and specific description of how you would be affected by the application in a way not common to the general public; and (5) the location and distance of your property relative to the proposed activity. You may also submit proposed conditions for the requested permit which would satisfy your concerns. Requests for a contested case hearing must be submitted in writing to the Office of the Chief Clerk at the address provided in the information section below.

If a hearing request is filed, the Executive Director will not issue the permit and will forward the application and hearing request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

**INFORMATION.** Written hearing requests, public comments, or requests for a public meeting should be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at <https://www14.tceq.texas.gov/epic/eComment/> by entering WRTF 14124 in the search field. For information concerning the hearing process, please contact the Public Interest Counsel, MC 103, at the same address.

For additional information, individual members of the general public may contact the Public Education Program at 1-800-687-4040. General information regarding the TCEQ can be found at our web site at [www.tceq.texas.gov](http://www.tceq.texas.gov). Si desea información en Español, puede llamar al 1-800-687-4040 o por el internet al [www.tceq.texas.gov](http://www.tceq.texas.gov).

Issued: June 27, 2025



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## TEMPORARY WATER USE PERMIT

PERMIT NO. 14124

TYPE §§ 11.138, 11.042

Permittee: City of Corpus Christi

Address: 1201 Leopard Street  
Corpus Christi, TX 78401

Received: May 12, 2025

Granted:

Watercourse: Nueces River

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

Watershed: Nueces River Basin

WHEREAS, after considering the recommendation of the staff relative to the above identified application, the following findings of fact and conclusions of law are made:

### FINDINGS OF FACT

1. The application is in proper form and accompanied by all necessary fees.
2. Applicant has applied for a Temporary Water Use Permit, for a period of three years, to authorize use of the bed and banks of the Nueces River, Nueces River Basin to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer for subsequent diversion, at diversion rates and points authorized in Certificate of Adjudication No. 21-2464, as amended, for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.
3. Groundwater will be discharged at each of the following points on the Nueces River in Nueces County:
  - A. Discharge Point No. 1 is located at Latitude 27.9000268° N, Longitude 97.687502° W with a maximum discharge rate of 3.1 cfs (1,390 gpm).
  - B. Discharge Point No. 2 is located at Latitude 27.890752° N, Longitude 97.674094° W with a maximum discharge rate of 18.5 cfs (8,303 gpm).
  - C. Discharge Point No. 3 is located at Latitude 27.899372° N, Longitude 97.682934° W with a maximum discharge rate of 3.1 cfs (1,390 gpm).
4. Discharged groundwater will be diverted, at a maximum combined rate of 339.68 cfs (152,460 gpm), from two points authorized by Certificate of Adjudication No. 21-2464, as amended:

- A. Diversion Point No. 1 is located at Latitude 27.867571 °N, Longitude 97.633179 °W.
  - B. Diversion Point No. 2 is located at Latitude 27.867309 °N, Longitude 97.633639 °W.
5. Notice of this application is required to be mailed to the interjacent water right holders of record in the Nueces River Basin and to the Texas Parks and Wildlife Department and Public Interest Council.

CONCLUSIONS OF LAW

- A. Jurisdiction is vested to consider this application under Texas Water Code §§ 11.138 and 11.042 and Title 30 Texas Administrative Code §§ 295.174 and 297.13.
- B. Applicant has complied with the particular requirements of the Texas Commission on Environmental Quality.
- C. The Executive Director recommends that special conditions be included.

NOW, THEREFORE, Temporary Water Use Permit No. 14124 is issued to the City of Corpus Christi subject to the following terms and conditions:

1. USE

Permittee is authorized, for a period of three years, to use the bed and banks of the Nueces River to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer for subsequent diversion and use for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.

2. DISCHARGE

Groundwater will be discharged at the following points on the Nueces River in Nueces County:

- A. Discharge Point No. 1 is located at Latitude 27.900268 °N, Longitude 97.687502 °W with a maximum discharge rate of 3.1 cfs (1,390 gpm).
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- C. Discharge Point No. 3 is located at Latitude 27.899372 °N, Longitude 97.682934 °W with a maximum discharge rate of 3.1 cfs (1,390 gpm).

3. DIVERSION

Permittee is authorized to divert its discharged groundwater, at a maximum combined rate of 339.68 cfs (152,460 gpm), from two points authorized by Certificate of Adjudication No. 21-2464, as amended:

- A. Diversion Point No. 1 is located at Latitude 27.867571 °N, Longitude 97.633179 °W.
- B. Diversion Point No. 2 is located at Latitude 27.867309 °N, Longitude 97.633639 °W.

#### 4. SPECIAL CONDITIONS

- A. Permittee shall submit groundwater quality data to the Executive Director for any additional wells as the data becomes available. Water quality information should include, but not be limited to, chloride, sulfate, total dissolved solids (TDS), pH, and temperature. Temperature must be measured on site at the time the groundwater sample is collected.
- B. This temporary permit is issued contingent upon implementation of Permittee's *Source Water Monitoring Plan*. Any modifications to the plan must be approved by the Executive Director. Should Permittee fail to implement the plan or notify the Executive Director of any modifications to the plan, Permittee shall immediately cease operations under this permit or voluntarily forfeit the permit. If Permittee fails to cease operations or forfeit the permit, the Commission may begin proceedings to cancel the permit. Permittee shall immediately notify the Executive Director of any proposed modifications to the *Source Water Monitoring Plan* and provide copies of the appropriate documents effectuating such changes.
- C. Permittee shall conduct water quality monitoring in accordance with the *Source Water Monitoring Plan* and consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures* during those times that groundwater is being discharged and diverted under this bed and banks authorization. Continuous water quality monitoring shall be conducted at the following locations:
  - 1) one point 100 feet upstream of Discharge Point 1 (Instrument A);
  - 2) one point 50 feet downstream of Discharge Point 1 (Instrument B);
  - 3) one point 50 feet downstream of the Discharge Point 2 (Instrument C); and
  - 4) one point 300 feet downstream of Discharge Point 3 (Instrument D).
- D. Permittee shall commence water quality monitoring 30 days prior to groundwater discharge to determine baseline conditions.
- E. Permittee shall monitor water quality in the Nueces River in accordance with its *Source Water Monitoring Plan* which includes the following action levels, triggers, and responses. Permittee shall maintain records of implementation of Action Levels 1 through 3 and document the Response. Permittee shall provide the records to the Executive Director upon request.

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	<p>Downstream discharge is 20 – 29.9% higher than the upstream value.</p> <ul style="list-style-type: none"> <li>• Data is reviewed daily.</li> <li>• If levels remain above 20% for 6 hours, staff are dispatched to site.</li> <li>• Staff confirm equipment is operating properly and assess environmental conditions.</li> <li>• If levels remain elevated for 48 hours, status moves to Action Level 2.</li> </ul>
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% greater than A	<p>Downstream discharge is 30-39.9% higher than the upstream value OR downstream values have remained in Action Level 1 for 48 hours.</p> <ul style="list-style-type: none"> <li>• All steps in Action Level 1 occur.</li> <li>• Monitoring frequency is increased to hourly.</li> <li>• Wells currently pumping are reduced by 10%.</li> <li>• If levels remain elevated for 48 hours, status moves to Action Level 3.</li> </ul>

<p>Action Level 3</p>	<p>Instruments B, C, and/or D 8-hour average TDS or increased 4-hour TDS averages &gt;1,000 mg/L AND 40%+ greater than A</p>	<p>Downstream discharge is more than 40% higher than the upstream value OR downstream values have remained in Action Level 2 for 48 hours.</p> <ul style="list-style-type: none"> <li>• All steps in Action Levels 1 and 2 occur.</li> <li>• Wells currently pumping are reduced in increments of 10% and/or increases of water released from Wesley Seale Dam occur.</li> <li>• Further adjustments are made every 8 hours in groundwater discharge and/or Lake Corpus Christi flow until TDS levels return to Action Level 2.</li> <li>• Concentration 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.</li> </ul>
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- F. Permittee shall conduct initial pre-project aquatic life use monitoring in accordance with Permittee's *Aquatic Life Use Assessment Plan for the Nueces River Below Lake Corpus Christi* and consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures*. Permittee shall conduct the conventional water-chemistry sample component during each aquatic life monitoring event.
- G. Permittee shall continue aquatic life monitoring on an annual basis consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures* during any year or part of the year when permittee is diverting discharged groundwater under this permit. Aquatic life monitoring during any year in which it is required shall include a twice per year assessment of fish and macroinvertebrate communities and a physical habitat assessment, including the conventional water-chemistry sample component. All aquatic biological monitoring and physical habitat assessments shall take place in the index period (March 15 – October 15) with at least one of the twice per year monitoring events taking place in the critical period (July 1 – September 15).
- H. Permittee shall submit an annual report, starting on December 31, 2025, documenting aquatic life monitoring activities. The report shall contain a description of the field work performed, an assessment of water quality and biotic community assemblages, the biological metric scoring criteria used to assess compliance with the designated aquatic life use, a data comparison with previous years, any conclusions, and any actions taken by Permittee in response to aquatic life monitoring activities. Should aquatic life use not meet the water quality



standards for Segment 2102 or future segment designation, Permittee shall develop and implement remedial management strategies, subject to Executive Director approval, to meet the designated aquatic life use.

- I. Prior to diversion of the groundwater authorized herein, if sufficiently accurate measuring devices are not available, Permittee shall install and maintain measuring device(s), at any discharge point of the groundwater and at any authorized diversion point, capable of measuring within plus or minus 5% accuracy.
- J. Permittee shall only divert the amount of groundwater discharged to the Nueces River less the 7.0% conveyance loss.
- K. Permittee shall maintain daily records of the amount of groundwater discharged and subsequently diverted and the daily conveyance losses.
- L. This temporary water use permit may not interfere with or adversely affect existing water rights in the Nueces River Basin.
- M. Upon diversion and use of the water authorized herein, this temporary water use permit shall expire and be of no further force and effect.
- N. This temporary water use permit shall expire and become null and void three years from the date of issuance with no further Commission action. Permittee also waives the right to notice and hearing on cancellation of this water right.
- O. Permittee shall allow representatives of the South Texas Watermaster reasonable access to the property to inspect the measuring device and records.
- P. Permittee shall contact the South Texas Watermaster prior to use of the water authorized by this permit.

This temporary water use permit does not vest in its holder a permanent right and shall in no event be construed as a commitment of the Commission to approve or disapprove any other application or request by the Permittee.

Permittee agrees to be bound by the terms, conditions, and provisions contained herein, and such agreement is a condition precedent to the granting of this temporary water use permit.

All other matters requested in the application which are not specifically granted by this temporary water use permit are denied.

This temporary water use permit is subject to the requirements and orders of the South Texas Watermaster.

This temporary water use permit is issued subject to the Rules of the Texas Commission on Environmental Quality and to its right of continuing supervision.

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For the Commission

DATE ISSUED:



## Sarah Henderson

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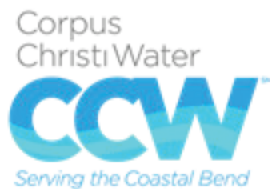
**From:** Esteban Ramos [REDACTED]  
**Sent:** Thursday, June 26, 2025 1:52 PM  
**To:** Sarah Henderson  
**Cc:** Kim Nygren; Kathy Alexander; Humberto Galvan; Chris Kozlowski; Andrew Molly [Drew]; Carlos Rubinstein; Herman Settemeyer; Nick Winkelmann  
**Subject:** RE: City of Corpus Christi - Temporary Water Use Permit Application No. 14124

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

Sarah:

The City's team thanks you and your team for reviewing our comments and revising the draft temporary water use permit. Therefore, the City agrees to the revised draft temporary water use permit and would like to move forward in the application process. Please let me know if you have any questions.

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



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**From:** Sarah Henderson <sarah.henderson@tceq.texas.gov>  
**Sent:** Tuesday, June 24, 2025 11:53 AM  
**To:** Esteban Ramos [REDACTED]  
**Cc:** Kim Nygren <Kim.Nygren@tceq.texas.gov>; Kathy Alexander <kathy.alexander@tceq.texas.gov>; Humberto Galvan <Humberto.Galvan@tceq.texas.gov>; Chris Kozlowski <chris.kozlowski@tceq.texas.gov>; Andrew Molly [Drew] [REDACTED]  
**Subject:** City of Corpus Christi - Temporary Water Use Permit Application No. 14124

**[ [ WARNING: External e-mail. Avoid clicking on links or attachments. We will **NEVER** ask for a password, username, payment or to take action from an email. When in doubt, please forward to [SecurityAlert@cctexas.com](mailto:SecurityAlert@cctexas.com). ] ]**

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Mr. Ramos,

This acknowledges receipt, on June 23, 2025, of the Applicant's comments to the draft public notice, draft temporary water use permit, and technical memoranda.

Please find the attached, revised draft temporary water use permit as well as the other documents we provided previously.

Provide any additional comments or questions by July 8, 2025 as the notice will be forwarded to the Office of the Chief Clerk for mailing after that date.

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

## Sarah Henderson

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**Cc:** Kim Nygren; Kathy Alexander; Humberto Galvan; Chris Kozlowski; [REDACTED]  
**Subject:** City of Corpus Christi - Temporary Water Use Permit Application No. 14124  
**Attachments:** City of Corpus Christi\_W RTP\_14124\_Revised\_Drafts\_24Jun2025.pdf

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# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## TEMPORARY WATER USE PERMIT

PERMIT NO. 14124

TYPE §§ 11.138, 11.042

Permittee: City of Corpus Christi

Address: 1201 Leopard Street  
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Received: May 12, 2025

Granted:

Watercourse: Nueces River

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4. SPECIAL CONDITIONS

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  - 1) one point 100 feet upstream of Discharge Point 1 (Instrument A);
  - 2) one point 50 feet downstream of Discharge Point 1 (Instrument B);
  - 3) one point 50 feet downstream of the Discharge Point 2 (Instrument C); and
  - 4) one point 300 feet downstream of Discharge Point 3 (Instrument D).
- D. Permittee shall commence water quality monitoring 30 days prior to groundwater discharge to determine baseline conditions.
- E. Permittee shall monitor water quality in the Nueces River in accordance with its *Source Water Monitoring Plan* which includes the following action levels, triggers, and responses. Permittee shall maintain records of implementation of Action Levels 1 through 3 and document the Response. Permittee shall provide the records to the Executive Director upon request.



Action Level	Trigger	Response
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<p>Action Level 3</p>	<p>Instruments B, C, and/or D 8-hour average TDS or increased 4-hour TDS averages &gt;1,000 mg/L AND 40%+ greater than A</p>	<p>Downstream discharge is more than 40% higher than the upstream value OR downstream values have remained in Action Level 2 for 48 hours.</p> <ul style="list-style-type: none"> <li>• All steps in Action Levels 1 and 2 occur.</li> <li>• Wells currently pumping are reduced in increments of 10% and/or increases of water released from Wesley Seale Dam occur.</li> <li>• Further adjustments are made every 8 hours in groundwater discharge and/or Lake Corpus Christi flow until TDS levels return to Action Level 2.</li> <li>• Concentration 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.</li> </ul>
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- F. Permittee shall conduct initial pre-project aquatic life use monitoring in accordance with Permittee's *Aquatic Life Use Assessment Plan for the Nueces River Below Lake Corpus Christi* and consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures*. Permittee shall conduct the conventional water-chemistry sample component during each aquatic life monitoring event.
- G. Permittee shall continue aquatic life monitoring on an annual basis consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures* during any year or part of the year when permittee is diverting discharged groundwater under this permit. Aquatic life monitoring during any year in which it is required shall include a twice per year assessment of fish and macroinvertebrate communities and a physical habitat assessment, including the conventional water-chemistry sample component. All aquatic biological monitoring and physical habitat assessments shall take place in the index period (March 15 - October 15) with at least one of the twice per year monitoring events taking place in the critical period (July 1 - September 15).
- H. Permittee shall submit an annual report, starting on December 31, 2025, documenting aquatic life monitoring activities. The report shall contain a description of the field work performed, an assessment of water quality and biotic community assemblages, the biological metric scoring criteria used to assess compliance with the designated aquatic life use, a data comparison with previous years, any conclusions, and any actions taken by Permittee in response to aquatic life monitoring activities. Should aquatic life use not meet the water quality



standards for Segment 2102 or future segment designation, Permittee shall develop and implement remedial management strategies, subject to Executive Director approval, to meet the designated aquatic life use.

- I. Prior to diversion of the groundwater authorized herein, if sufficiently accurate measuring devices are not available, Permittee shall install and maintain measuring device(s), at any discharge point of the groundwater and at any authorized diversion point, capable of measuring within plus or minus 5% accuracy.
- J. Permittee shall only divert the amount of groundwater discharged to the Nueces River less the 7.0% conveyance loss.
- K. Permittee shall maintain daily records of the amount of groundwater discharged and subsequently diverted and the daily conveyance losses.
- L. This temporary water use permit may not interfere with or adversely affect existing water rights is junior to all existing water rights in the Nueces River Basin.
- M. Upon diversion and use of the water authorized herein, this temporary water use permit shall expire and be of no further force and effect.
- N. This temporary water use permit shall expire and become null and void three years from the date of issuance with no further Commission action. Permittee also waives the right to notice and hearing on cancellation of this water right.
- O. Permittee shall allow representatives of the South Texas Watermaster reasonable access to the property to inspect the measuring device and records.
- P. Permittee shall contact the South Texas Watermaster prior to use of the water authorized by this permit.

This temporary water use permit does not vest in its holder a permanent right and shall in no event be construed as a commitment of the Commission to approve or disapprove any other application or request by the Permittee.

Permittee agrees to be bound by the terms, conditions, and provisions contained herein, and such agreement is a condition precedent to the granting of this temporary water use permit.

All other matters requested in the application which are not specifically granted by this temporary water use permit are denied.

This temporary water use permit is subject to the requirements and orders of the South Texas Watermaster.

This temporary water use permit is issued subject to the Rules of the Texas Commission on Environmental Quality and to its right of continuing supervision.

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For the Commission

DATE ISSUED:

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## NOTICE OF AN APPLICATION FOR A TEMPORARY WATER USE PERMIT

APPLICATION NO. 14124

City of Corpus Christi seeks a temporary water use permit, for a period of three years, to authorize the use of the bed and banks of the Nueces River, Nueces River Basin to convey groundwater for subsequent diversion and use for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties. More information on the application and how to participate in the permitting process is given below.

**APPLICATION.** City of Corpus Christi, Applicant, 1201 Leopard Street, Corpus Christi, TX 78401, has applied to the Texas Commission on Environmental Quality (TCEQ) for a Temporary Water Use Permit pursuant to Texas Water Code §§ 11.138 and 11.042 and TCEQ Rules Title 30 Texas Administrative Code (TAC) § 295.1, *et seq.* Mailed notice to the interjacent water right holders of record in the Nueces River Basin is required pursuant to Title 30 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).

Applicant seeks a Temporary Water Use Permit, for a period of three years, to authorize use of the bed and banks of the Nueces River, Nueces River Basin, to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer for subsequent diversion, at diversion rates and points authorized in Certificate of Adjudication No. 21-2464, as amended, for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.

Groundwater will be discharged at the following points on the Nueces River in Nueces County, ZIP Code 78380:

Discharge Point No. 1 is located at Latitude 27.9000268°N, Longitude 97.687502°W with a maximum discharge rate of 3.1 cfs (1,390 gpm).

Discharge Point No. 2 is located at Latitude 27.890752°N, Longitude 97.674094°W with a maximum discharge rate of 18.5 cfs (8,303 gpm).

Discharge Point No. 3 is located at Latitude 27.899372°N, Longitude 97.682934°W with a maximum discharge rate of 3.1 cfs (1,390 gpm).

Discharged groundwater will be diverted, at a maximum combined rate of 339.68 cfs (152,460 gpm), from two points authorized by Certificate of Adjudication No. 21-2464, as amended, ZIP Code 78410:

Diversion Point No. 1 is located at Latitude 27.867571°N, Longitude 97.633179°W.

Diversion Point No. 2 is located at Latitude 27.867309°N, Longitude 97.633639°W.



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. Additional information was received on June 13, 2025.

The Executive Director completed the technical review of the application and prepared a draft permit. The draft permit, if granted, would include special conditions including, but not limited to, water quality and aquatic life monitoring. The application, technical memoranda, and Executive Director's draft permit are available for viewing on the TCEQ web page at:

[https://www.tceq.texas.gov/permitting/water\\_rights/wr-permitting/view-wr-pend-apps](https://www.tceq.texas.gov/permitting/water_rights/wr-permitting/view-wr-pend-apps).

Alternatively, you may request a copy of the documents by contacting the TCEQ Office of the Chief Clerk by phone at (512) 239-3300 or by mail at TCEQ OCC, Notice Team (MC-105), P.O. Box 13087, Austin, Texas 78711.

**PUBLIC COMMENT / PUBLIC MEETING.** Written public comments and requests for a public meeting should be submitted to the Office of the Chief Clerk, at the address provided in the information section below, by \_\_\_\_\_. A public meeting is intended for the taking of public comment, and is not a contested case hearing. A public meeting will be held if the Executive Director determines that there is a significant degree of public interest in the application.

**CONTESTED CASE HEARING.** The TCEQ may grant a contested case hearing on this application if a written hearing request is filed by \_\_\_\_\_. The Executive Director may approve the application unless a written request for a contested case hearing is filed by \_\_\_\_\_.

To request a contested case hearing, you must submit the following: (1) your name (or for a group or association, an official representative), mailing address, daytime phone number, and fax number, if any; (2) applicant's name and permit number; (3) the statement "[I/we] request a contested case hearing;" (4) a brief and specific description of how you would be affected by the application in a way not common to the general public; and (5) the location and distance of your property relative to the proposed activity. You may also submit proposed conditions for the requested permit which would satisfy your concerns. Requests for a contested case hearing must be submitted in writing to the Office of the Chief Clerk at the address provided in the information section below.

If a hearing request is filed, the Executive Director will not issue the permit and will forward the application and hearing request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

**INFORMATION.** Written hearing requests, public comments, or requests for a public meeting should be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at <https://www14.tceq.texas.gov/epic/eComment/> by entering WRTF 14124 in the search field. For information concerning the hearing process, please contact the Public Interest Counsel, MC 103, at the same address.

For additional information, individual members of the general public may contact the Public Education Program at 1-800-687-4040. General information regarding the TCEQ can be found at our web site at [www.tceq.texas.gov](http://www.tceq.texas.gov). Si desea información en Español, puede llamar al 1-800-687-4040 o por el internet al [www.tceq.texas.gov](http://www.tceq.texas.gov).

Issued:

**Texas Commission on Environmental Quality**

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INTEROFFICE MEMORANDUM

To: Sarah Henderson, Project Manager  
Water Rights Permitting Team

Date: June 16, 2025

Through: *KA* Kathy Alexander, Ph.D., Policy and Technical Analyst  
Water Availability Division

*TG* Trent Gay, Team Leader  
Surface Water Availability Team

From: Andrew Garcia, Hydrologist  
Surface Water Availability Team

Subject: City of Corpus Christi  
WRTP 14124  
CN600131858  
Nueces River, Nueces River Basin  
Nueces County

**HYDROLOGY REVIEW**

**Application Summary**

The City of Corpus Christi (City) requests a temporary water use permit to use the bed and banks of the Nueces River, Nueces River Basin to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer within a period of three years, for subsequent diversion at diversion rates and points authorized in Certificate of Adjudication No. 21-2464, as amended, for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.

The application was declared administratively complete on June 11, 2025.

**Hydrology Review**

Resource Protection staff did not recommend instream flow requirements for this application. See the Resource Protection memo dated June 12, 2025.

The application does not request a new appropriation of water; therefore, a water availability analysis is not necessary. However, the application must be reviewed to ensure no water rights are affected by the request.

Regarding the request to use the bed and banks of the Nueces River to convey groundwater, the application included the information required in 30 Texas Administrative Code (TAC) §295.113. The application included information on conveyance losses and stated that the City will only divert discharged groundwater minus losses. The City's proposed channel losses (7.0%) are consistent with the



channel loss factors in TCEQ's Nueces WAM. Staff reviewed the estimate of losses and found them to be acceptable. Staff is of the opinion that if the City diverts only discharged groundwater, as set out in staff's recommended special conditions, no water rights should be affected by the request.

In addition, the application is subject to requirements and orders of the South Texas Watermaster. The Watermaster actively manages water rights on a daily basis and protects senior water rights in times of shortage.

## **Conclusion**

Hydrology staff can support granting the application as requested provided that any temporary permit granted includes the following special conditions:

1. Prior to diversion of the groundwater authorized herein, if sufficiently accurate measuring devices are not available, Permittee shall install and maintain measuring device(s), at the discharge point of the groundwater and at any authorized diversion point, capable of measuring within plus or minus 5% accuracy.
2. Permittee shall only divert the amount of groundwater discharged to the Nueces River less the 7.0% conveyance loss.
3. Permittee shall maintain daily records of the amount of groundwater discharged and subsequently diverted and the daily conveyance losses.

Note that the application is subject to the requirements and orders of the South Texas Watermaster.

*Andrew Garcia*

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Andrew Garcia, Hydrologist


# Texas Commission on Environmental Quality

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## INTEROFFICE MEMORANDUM

To: Sarah Henderson, Project Manager  
Water Rights Permitting Team

Date: June 12, 2025

Through: Leslie Patterson, Team Leader   
Resource Protection Team

From: Kenneth Coonrod, Aquatic Scientist  
Resource Protection Team

Subject: City of Corpus Christi  
WRTP 14124  
CN600131858  
Nueces River, Nueces River Basin  
Nueces County

Environmental reviews of water right applications are conducted in accordance with applicable provisions of the Texas Water Code (TWC) and the administrative rules of the Texas Commission on Environmental Quality (TCEQ). The provisions applicable to environmental reviews can vary according to the type and the location of the authorization requested.

### APPLICATION SUMMARY

The City of Corpus Christi (City) requests a temporary water use permit to use the bed and banks of the Nueces River, Nueces River Basin to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer within a period of three years, for subsequent diversion at diversion rates and points authorized in Certificate of Adjudication No. 21-2464, as amended, for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.

### ENVIRONMENTAL ANALYSIS

**Aquatic and Riparian Habitats:** The City's bed and banks project is located on the Nueces River, a perennial water body, situated in the Floodplains and Low Terraces and Southern Subhumid Gulf Coastal Prairies ecoregions (Griffith et al. 2004).

The checklist for the Nueces River Basin identified 81 species of ichthyofauna occurring within the Lower Nueces hydrologic unit (United States Geologic Survey code 12110111) (Hendrickson and Cohen 2022). The black-spotted newt (*Notophthalmus meridionalis*) and the black rail (*Laterallus jamaicensis*), high-interest aquatic-dependent species, are known to occur in Nueces County (TPWD 2025).

Resource Protection staff requested that the City conduct aquatic life monitoring to confirm that the designated aquatic life use, as specified in the *Texas Surface Water Quality Standards*, is maintained for the duration of the project. The City subsequently submitted an *Aquatic Life Use and Assessment Plan for the Nueces River Below Lake Corpus Christi*. Resource Protection staff reviewed the plan and recommend that the City conduct aquatic life monitoring in accordance with the plan and TCEQ's most recently approved *Surface Water Quality Monitoring Procedures*, as outlined in the special conditions below.

On February 12, 2014, the TCEQ adopted environmental flow standards for the Nueces River and Corpus Christi and Baffin Bays (Title 30 Texas Administrative Code (TAC) Chapter 298 Subchapter F). These environmental flow standards are considered adequate to support a sound ecological environment (Title 30 TAC § 298.410). The City does not request a new appropriation of water or an amendment that increases the amount of water stored, taken, or diverted; therefore, the environmental flow standards do not apply.

**Recreational Uses:** The Nueces River Below Lake Corpus Christi (Segment 2102) has a designated primary contact recreation 1 use (TCEQ 2022).

**Water Quality:** The Nueces River Below Lake Corpus Christi (Segment 2102) has a designated high aquatic life and public water supply use (TCEQ 2022). The Nueces River from the downstream end of the segment upstream to FM 666 is listed on the *Texas Integrated Report – Texas 303(d) List (Category 5)* as having a Watershed Protection Plan under development or accepted by the Environmental Protection Agency for total dissolved solids (TDS) in water (TCEQ 2024).

The City requests to discharge groundwater from the Gulf Coast aquifer into the Nueces River for subsequent diversion. The City provided groundwater quality data for three active wells, Wells 1, 2, and 3, and will provide data for additional wells when it becomes available. Resource Protection staff reviewed the City's data and identified concerns for elevated levels of TDS.

Due to the concerns identified for TDS, Resource Protection staff requested that the City submit a water quality monitoring plan. The City submitted a *Source Water Monitoring Plan* (plan), which identified an initial trigger level of 1,000 mg/L for TDS and provided a series of action levels and responses

based on the duration of the percentage increase in observed TDS from baseline conditions when groundwater is being discharged. In the plan, the City proposed to monitor water quality at a point 100 feet upstream of Discharge Point 1, a point 50 feet downstream of Discharge Point 1, a point 50 feet downstream of Discharge Point 2, and a point 300 feet downstream of Discharge Point 3.

The City indicated that it would notify the South Texas Watermaster if any changes to the plan were required. Staff notes that the City will need to submit any proposed changes to the plan to the Executive Director's Water Rights Permitting and Availability Section to ensure that any proposed changes are consistent with the special conditions in the permit.

Resource Protection staff recommend the special conditions as outlined below to ensure that the effects of the permit on water quality in the project area are monitored and any water quality issues resulting from operations under the permit are addressed.

**Freshwater Inflows:** Freshwater inflows are critical for maintaining the historical productivity of bays and estuaries along the Gulf Coast. The application does not request a new appropriation of water; therefore, the City's request should not have any impact to Nueces Bay or Corpus Christi Bay.

## RECOMMENDATIONS

Resource Protection staff recommend the following Special Conditions be included in the proposed temporary permit, if granted:

1. Permittee shall submit groundwater quality data to the Executive Director for any additional wells as the data becomes available. Water quality information should include, but not be limited to, chloride, sulfate, total dissolved solids (TDS), pH, and temperature. Temperature must be measured on site at the time the groundwater sample is collected.
2. This temporary permit is issued contingent upon implementation of Permittee's *Source Water Monitoring Plan*. Any modifications to the plan must be approved by the Executive Director. Should Permittee fail to implement the plan or notify the Executive Director of any modifications to the plan, Permittee shall immediately cease operations under this permit or voluntarily forfeit the permit. If Permittee fails to cease operations or forfeit the permit, the Commission may begin proceedings to cancel the permit. Permittee shall immediately notify the Executive Director of any proposed modifications to the *Source Water Monitoring Plan* and provide copies of the appropriate documents effectuating such changes.

3. Permittee shall conduct water quality monitoring in accordance with the *Source Water Monitoring Plan* and consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures* during those times that groundwater is being discharged and diverted under this bed and banks authorization. Continuous water quality monitoring shall be conducted at the following locations:
  - a) one point 100 feet upstream of Discharge Point 1 (Instrument A);
  - b) one point 50 feet downstream of Discharge Point 1 (Instrument B);
  - c) one point 50 feet downstream of Discharge Point 2 (Instrument C); and
  - d) one point 300 feet downstream of Discharge Point 3 (Instrument D).
4. Permittee shall commence water quality monitoring 30 days prior to groundwater discharge to determine baseline conditions.
5. Permittee shall monitor water quality in the Nueces River in accordance with its *Source Water Monitoring Plan* which includes the following action levels, triggers, and responses. Permittee shall maintain records of implementation of Action Levels 1 through 3 and document the Response. Permittee shall provide the records to the Executive Director upon request.

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 <b>AND</b> 20 – 29.9% greater than A	Downstream discharge is 20 – 29.9% higher than the upstream value. <ul style="list-style-type: none"> <li>• Data is reviewed daily.</li> <li>• If levels remain above 20% for 6 hours, staff are dispatched to site.</li> <li>• Staff confirm equipment is operating properly and assess environmental conditions.</li> <li>• If levels remain elevated for 48 hours, status moves to Action Level 2.</li> </ul>

Action Level	Trigger	Response
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 <b>AND</b> 30-39% greater than A	<p>Downstream discharge is 30-39.9% higher than the upstream value <b>OR</b> downstream values have remained in Action Level 1 for 48 hours.</p> <ul style="list-style-type: none"> <li>• All steps in Action Level 1 occur.</li> <li>• Monitoring frequency is increased to hourly.</li> <li>• Wells currently pumping are reduced by 10%.</li> <li>• If levels remain elevated for 48 hours, status moves to Action Level 3.</li> </ul>
Action Level 3	Instruments B, C, and/or D 8-hour average TDS or increased 4-hour TDS averages >1,000 mg/L <b>AND</b> 40%+ greater than A	<p>Downstream discharge is more than 40% higher than the upstream value <b>OR</b> downstream values have remained in Action Level 2 for 48 hours.</p> <ul style="list-style-type: none"> <li>• All steps in Action Levels 1 and 2 occur.</li> <li>• Wells currently pumping are reduced in increments of 10% and/or increases of water released from Wesley Seale Dam occur.</li> <li>• Further adjustments are made every 8 hours in groundwater discharge and/or Lake Corpus Christi flow until TDS levels return to Action Level 2.</li> <li>• Concentration 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.</li> </ul>

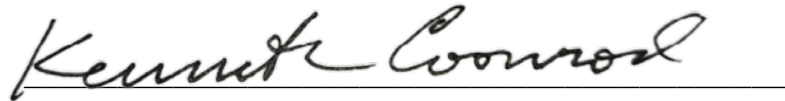


6. Permittee shall conduct initial pre-project aquatic life use monitoring in accordance with Permittee's *Aquatic Life Use Assessment Plan for the Nueces River Below Lake Corpus Christi* and consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures*. Permittee shall conduct the conventional water-chemistry sample component during each aquatic life monitoring event.
7. Permittee shall continue aquatic life monitoring on an annual basis consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures* during any year or part of the year when permittee is diverting discharged groundwater under this permit. Aquatic life monitoring during any year in which it is required shall include a twice per year assessment of fish and macroinvertebrate communities and a physical habitat assessment, including the conventional water-chemistry sample component. All aquatic biological monitoring and physical habitat assessments shall take place in the index period (March 15 – October 15) with at least one of the twice per year monitoring events taking place in the critical period (July 1 – September 15).
8. Permittee shall submit an annual report, starting on December 31, 2025, documenting aquatic life monitoring activities. The report shall contain a description of the field work performed, an assessment of water quality and biotic community assemblages, the biological metric scoring criteria used to assess compliance with the designated aquatic life use, a data comparison with previous years, any conclusions, and any actions taken by Permittee in response to aquatic life monitoring activities. Should aquatic life use not meet the water quality standards for Segment 2102 or future segment designation, Permittee shall develop and implement remedial management strategies, subject to Executive Director approval, to meet the designated aquatic life use.

#### **LITERATURE CITED**

- Griffith, G.E., S.A. Bryce, J.M. Omernik, J.A. Comstock, A.C. Rogers, B. Harrison, S.L. Hatch, and D. Bezanson. 2004. Ecoregions of Texas. (2-sided color poster with map, descriptive text, and photographs). U.S. Geological Survey, Reston, VA. Scale 1:2,500,000.
- Hendrickson, DA, Cohen AE. 2022. Fishes of Texas Project Database (version 3.00) [Internet]. University of Texas at Austin: Texas Advanced Computing Center. [cited 2025 Jun 5]. Available from <http://doi.org/10.17603/C3WC70>.
- TCEQ. 2022. Texas Surface Water Quality Standards §§307.1-307.10. Austin (TX): Texas Commission on Environmental Quality.
- TCEQ. 2024. Texas Integrated Report of Surface Water Quality. Austin (TX): Texas Commission on Environmental Quality.

TPWD. 2025. TPWD County Lists of Texas Protected Species and Species of Greatest Conservation Need [Internet]. Austin (TX): Nueces County, revised January 15, 2025. [cited 2025 Jun 5]. Available from <http://tpwd.texas.gov/gis/rtest/>.

A handwritten signature in black ink, reading "Kenneth Coonrod", is positioned above a solid horizontal line.

Kenneth Coonrod, Aquatic Scientist  
Resource Protection Team

## Sarah Henderson

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**From:** Esteban Ramos [REDACTED]  
**Sent:** Monday, June 23, 2025 11:31 AM  
**To:** Sarah Henderson  
**Cc:** Kim Nygren; Kathy Alexander; Chris Kozlowski; Humberto Galvan; Carlos Rubinstein; Herman Settemeyer; Andrew Molly [Drew]; Maria Corona  
**Subject:** RE: City of Corpus Christi - Temporary Water Use Permit Application No. 14124

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

Sarah:

The Team has reviewed the temporary water permit and technical memoranda. Below are the City's comments  
Special Conditions L.

**From:**

L This temporary water use permit is junior to all existing water rights in the Nueces River Basin.

**To:**

L This temporary water use permit may not interfere with or adversely affect prior appropriation and existing water rights in the Nueces River Basin; nor grant a right to make a call for state water.

Please review if you have any questions let me know.

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



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**From:** Sarah Henderson <sarah.henderson@tceq.texas.gov>  
**Sent:** Wednesday, June 18, 2025 1:47 PM  
**To:** Esteban Ramos [REDACTED]  
**Cc:** Kim Nygren <Kim.Nygren@tceq.texas.gov>; Kathy Alexander <kathy.alexander@tceq.texas.gov>; Chris Kozlowski

<chris.kozlowski@tceq.texas.gov>; Humberto Galvan <Humberto.Galvan@tceq.texas.gov>

Subject: City of Corpus Christi - Temporary Water Use Permit Application No. 14124

**[ [ WARNING: External e-mail. Avoid clicking on links or attachments. We will NEVER ask for a password, username, payment or to take action from an email. When in doubt, please forward to [SecurityAlert@cctexas.com](mailto:SecurityAlert@cctexas.com). ] ]**

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Mr. Ramos,

Please find the attached draft public notice, draft temporary water use permit, and technical memoranda for your review.

A response is requested by July 2, 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

## Sarah Henderson

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**From:** Sarah Henderson  
**Sent:** Wednesday, June 18, 2025 1:47 PM  
**To:** Esteban Ramos  
**Cc:** Kim Nygren; Kathy Alexander; Chris Kozlowski; Humberto Galvan  
**Subject:** City of Corpus Christi - Temporary Water Use Permit Application No. 14124  
**Attachments:** City\_of\_Corpus\_Christi\_W RTP\_14124\_Drafts\_18Jun2025.pdf

Mr. Ramos,

Please find the attached draft public notice, draft temporary water use permit, and technical memoranda for your review.

A response is requested by July 2, 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

Brooke T. Paup, Chairwoman  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 18, 2025

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

VIA E-MAIL

RE: City of Corpus Christi  
W RTP 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:

Drafts, subject to revision, of the public notice, proposed Temporary Water Use Permit No. 14124 and the related technical memoranda are attached.

Staff is recommending that the referenced application be granted in accordance with the attached drafts. Please review the drafts and contact me no later than July 2, 2025 with any comments or questions as the notice will be forwarded to the Office of the Chief Clerk for mailing after that date.

Please note this application requires a 30-day comment period and once the comment period has closed, the proposed Temporary Water Use Permit No. 14124 may be issued as drafted, given no hearing requests are received.

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

Sincerely,

A handwritten signature in dark ink that reads "Sarah Henderson". The signature is fluid and cursive, with the first and last names clearly legible.

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

Attachments



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## NOTICE OF AN APPLICATION FOR A TEMPORARY WATER USE PERMIT

APPLICATION NO. 14124

City of Corpus Christi seeks a temporary water use permit, for a period of three years, to authorize the use of the bed and banks of the Nueces River, Nueces River Basin to convey groundwater for subsequent diversion and use for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties. More information on the application and how to participate in the permitting process is given below.

**APPLICATION.** City of Corpus Christi, Applicant, 1201 Leopard Street, Corpus Christi, TX 78401, has applied to the Texas Commission on Environmental Quality (TCEQ) for a Temporary Water Use Permit pursuant to Texas Water Code §§ 11.138 and 11.042 and TCEQ Rules Title 30 Texas Administrative Code (TAC) § 295.1, *et seq.* Mailed notice to the interjacent water right holders of record in the Nueces River Basin is required pursuant to Title 30 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).

Applicant seeks a Temporary Water Use Permit, for a period of three years, to authorize use of the bed and banks of the Nueces River, Nueces River Basin, to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer for subsequent diversion, at diversion rates and points authorized in Certificate of Adjudication No. 21-2464, as amended, for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.

Groundwater will be discharged at the following points on the Nueces River in Nueces County, ZIP Code 78380:

Discharge Point No. 1 is located at Latitude 27.9000268°N, Longitude 97.687502°W with a maximum discharge rate of 3.1 cfs (1,390 gpm).

Discharge Point No. 2 is located at Latitude 27.890752°N, Longitude 97.674094°W with a maximum discharge rate of 18.5 cfs (8,303 gpm).

Discharge Point No. 3 is located at Latitude 27.899372°N, Longitude 97.682934°W with a maximum discharge rate of 3.1 cfs (1,390 gpm).

Discharged groundwater will be diverted, at a maximum combined rate of 339.68 cfs (152,460 gpm), from two points authorized by Certificate of Adjudication No. 21-2464, as amended, ZIP Code 78410:

Diversion Point No. 1 is located at Latitude 27.867571°N, Longitude 97.633179°W.

Diversion Point No. 2 is located at Latitude 27.867309°N, Longitude 97.633639°W.



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. Additional information was received on June 13, 2025.

The Executive Director completed the technical review of the application and prepared a draft permit. The draft permit, if granted, would include special conditions including, but not limited to, water quality and aquatic life monitoring. The application, technical memoranda, and Executive Director's draft permit are available for viewing on the TCEQ web page at:

[https://www.tceq.texas.gov/permitting/water\\_rights/wr-permitting/view-wr-pend-apps](https://www.tceq.texas.gov/permitting/water_rights/wr-permitting/view-wr-pend-apps).

Alternatively, you may request a copy of the documents by contacting the TCEQ Office of the Chief Clerk by phone at (512) 239-3300 or by mail at TCEQ OCC, Notice Team (MC-105), P.O. Box 13087, Austin, Texas 78711.

**PUBLIC COMMENT / PUBLIC MEETING.** Written public comments and requests for a public meeting should be submitted to the Office of the Chief Clerk, at the address provided in the information section below, by \_\_\_\_\_. A public meeting is intended for the taking of public comment, and is not a contested case hearing. A public meeting will be held if the Executive Director determines that there is a significant degree of public interest in the application.

**CONTESTED CASE HEARING.** The TCEQ may grant a contested case hearing on this application if a written hearing request is filed by \_\_\_\_\_. The Executive Director may approve the application unless a written request for a contested case hearing is filed by \_\_\_\_\_.

To request a contested case hearing, you must submit the following: (1) your name (or for a group or association, an official representative), mailing address, daytime phone number, and fax number, if any; (2) applicant's name and permit number; (3) the statement "[I/we] request a contested case hearing;" (4) a brief and specific description of how you would be affected by the application in a way not common to the general public; and (5) the location and distance of your property relative to the proposed activity. You may also submit proposed conditions for the requested permit which would satisfy your concerns. Requests for a contested case hearing must be submitted in writing to the Office of the Chief Clerk at the address provided in the information section below.

If a hearing request is filed, the Executive Director will not issue the permit and will forward the application and hearing request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

**INFORMATION.** Written hearing requests, public comments, or requests for a public meeting should be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at <https://www14.tceq.texas.gov/epic/eComment/> by entering WRTF 14124 in the search field. For information concerning the hearing process, please contact the Public Interest Counsel, MC 103, at the same address.

For additional information, individual members of the general public may contact the Public Education Program at 1-800-687-4040. General information regarding the TCEQ can be found at our web site at [www.tceq.texas.gov](http://www.tceq.texas.gov). Si desea información en Español, puede llamar al 1-800-687-4040 o por el internet al [www.tceq.texas.gov](http://www.tceq.texas.gov).

Issued:



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## TEMPORARY WATER USE PERMIT

PERMIT NO. 14124

TYPE §§ 11.138, 11.042

Permittee: City of Corpus Christi

Address: 1201 Leopard Street  
Corpus Christi, TX 78401

Received: May 12, 2025

Granted:

Watercourse: Nueces River

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

Watershed: Nueces River Basin

WHEREAS, after considering the recommendation of the staff relative to the above identified application, the following findings of fact and conclusions of law are made:

### FINDINGS OF FACT

1. The application is in proper form and accompanied by all necessary fees.
2. Applicant has applied for a Temporary Water Use Permit, for a period of three years, to authorize use of the bed and banks of the Nueces River, Nueces River Basin to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer for subsequent diversion, at diversion rates and points authorized in Certificate of Adjudication No. 21-2464, as amended, for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.
3. Groundwater will be discharged at each of the following points on the Nueces River in Nueces County:
  - A. Discharge Point No. 1 is located at Latitude 27.9000268°N, Longitude 97.687502°W with a maximum discharge rate of 3.1 cfs (1,390 gpm).
  - B. Discharge Point No. 2 is located at Latitude 27.890752°N, Longitude 97.674094°W with a maximum discharge rate of 18.5 cfs (8,303 gpm).
  - C. Discharge Point No. 3 is located at Latitude 27.899372°N, Longitude 97.682934°W with a maximum discharge rate of 3.1 cfs (1,390 gpm).
4. Discharged groundwater will be diverted, at a maximum combined rate of 339.68 cfs (152,460 gpm), from two points authorized by Certificate of Adjudication No. 21-2464, as amended:

- A. Diversion Point No. 1 is located at Latitude 27.867571 °N, Longitude 97.633179 °W.
  - B. Diversion Point No. 2 is located at Latitude 27.867309 °N, Longitude 97.633639 °W.
5. Notice of this application is required to be mailed to the interjacent water right holders of record in the Nueces River Basin and to the Texas Parks and Wildlife Department and Public Interest Council.

CONCLUSIONS OF LAW

- A. Jurisdiction is vested to consider this application under Texas Water Code §§ 11.138 and 11.042 and Title 30 Texas Administrative Code §§ 295.174 and 297.13.
- B. Applicant has complied with the particular requirements of the Texas Commission on Environmental Quality.
- C. The Executive Director recommends that special conditions be included.

NOW, THEREFORE, Temporary Water Use Permit No. 14124 is issued to the City of Corpus Christi subject to the following terms and conditions:

1. USE

Permittee is authorized, for a period of three years, to use the bed and banks of the Nueces River to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer for subsequent diversion and use for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.

2. DISCHARGE

Groundwater will be discharged at the following points on the Nueces River in Nueces County:

- A. Discharge Point No. 1 is located at Latitude 27.900268 °N, Longitude 97.687502 °W with a maximum discharge rate of 3.1 cfs (1,390 gpm).
- B. Discharge Point No. 2 is located at Latitude 27.890752 °N, Longitude 97.674094 °W with a maximum discharge rate of 18.5 cfs (8,303 gpm).
- C. Discharge Point No. 3 is located at Latitude 27.899372 °N, Longitude 97.682934 °W with a maximum discharge rate of 3.1 cfs (1,390 gpm).

3. DIVERSION

Permittee is authorized to divert its discharged groundwater, at a maximum combined rate of 339.68 cfs (152,460 gpm), from two points authorized by Certificate of Adjudication No. 21-2464, as amended:

- A. Diversion Point No. 1 is located at Latitude 27.867571 °N, Longitude 97.633179 °W.
- B. Diversion Point No. 2 is located at Latitude 27.867309 °N, Longitude 97.633639 °W.



4. SPECIAL CONDITIONS

- A. Permittee shall submit groundwater quality data to the Executive Director for any additional wells as the data becomes available. Water quality information should include, but not be limited to, chloride, sulfate, total dissolved solids (TDS), pH, and temperature. Temperature must be measured on site at the time the groundwater sample is collected.
- B. This temporary permit is issued contingent upon implementation of Permittee's *Source Water Monitoring Plan*. Any modifications to the plan must be approved by the Executive Director. Should Permittee fail to implement the plan or notify the Executive Director of any modifications to the plan, Permittee shall immediately cease operations under this permit or voluntarily forfeit the permit. If Permittee fails to cease operations or forfeit the permit, the Commission may begin proceedings to cancel the permit. Permittee shall immediately notify the Executive Director of any proposed modifications to the *Source Water Monitoring Plan* and provide copies of the appropriate documents effectuating such changes.
- C. Permittee shall conduct water quality monitoring in accordance with the *Source Water Monitoring Plan* and consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures* during those times that groundwater is being discharged and diverted under this bed and banks authorization. Continuous water quality monitoring shall be conducted at the following locations:
  - 1) one point 100 feet upstream of Discharge Point 1 (Instrument A);
  - 2) one point 50 feet downstream of Discharge Point 1 (Instrument B);
  - 3) one point 50 feet downstream of the Discharge Point 2 (Instrument C); and
  - 4) one point 300 feet downstream of Discharge Point 3 (Instrument D).
- D. Permittee shall commence water quality monitoring 30 days prior to groundwater discharge to determine baseline conditions.
- E. Permittee shall monitor water quality in the Nueces River in accordance with its *Source Water Monitoring Plan* which includes the following action levels, triggers, and responses. Permittee shall maintain records of implementation of Action Levels 1 through 3 and document the Response. Permittee shall provide the records to the Executive Director upon request.

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	<p>Downstream discharge is 20 – 29.9% higher than the upstream value.</p> <ul style="list-style-type: none"> <li>• Data is reviewed daily.</li> <li>• If levels remain above 20% for 6 hours, staff are dispatched to site.</li> <li>• Staff confirm equipment is operating properly and assess environmental conditions.</li> <li>• If levels remain elevated for 48 hours, status moves to Action Level 2.</li> </ul>
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% greater than A	<p>Downstream discharge is 30-39.9% higher than the upstream value OR downstream values have remained in Action Level 1 for 48 hours.</p> <ul style="list-style-type: none"> <li>• All steps in Action Level 1 occur.</li> <li>• Monitoring frequency is increased to hourly.</li> <li>• Wells currently pumping are reduced by 10%.</li> <li>• If levels remain elevated for 48 hours, status moves to Action Level 3.</li> </ul>



<p>Action Level 3</p>	<p>Instruments B, C, and/or D 8-hour average TDS or increased 4-hour TDS averages &gt;1,000 mg/L AND 40%+ greater than A</p>	<p>Downstream discharge is more than 40% higher than the upstream value OR downstream values have remained in Action Level 2 for 48 hours.</p> <ul style="list-style-type: none"> <li>• All steps in Action Levels 1 and 2 occur.</li> <li>• Wells currently pumping are reduced in increments of 10% and/or increases of water released from Wesley Seale Dam occur.</li> <li>• Further adjustments are made every 8 hours in groundwater discharge and/or Lake Corpus Christi flow until TDS levels return to Action Level 2.</li> <li>• Concentration 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.</li> </ul>
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- F. Permittee shall conduct initial pre-project aquatic life use monitoring in accordance with Permittee's *Aquatic Life Use Assessment Plan for the Nueces River Below Lake Corpus Christi* and consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures*. Permittee shall conduct the conventional water-chemistry sample component during each aquatic life monitoring event.
- G. Permittee shall continue aquatic life monitoring on an annual basis consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures* during any year or part of the year when permittee is diverting discharged groundwater under this permit. Aquatic life monitoring during any year in which it is required shall include a twice per year assessment of fish and macroinvertebrate communities and a physical habitat assessment, including the conventional water-chemistry sample component. All aquatic biological monitoring and physical habitat assessments shall take place in the index period (March 15 - October 15) with at least one of the twice per year monitoring events taking place in the critical period (July 1 - September 15).
- H. Permittee shall submit an annual report, starting on December 31, 2025, documenting aquatic life monitoring activities. The report shall contain a description of the field work performed, an assessment of water quality and biotic community assemblages, the biological metric scoring criteria used to assess compliance with the designated aquatic life use, a data comparison with previous years, any conclusions, and any actions taken by Permittee in response to aquatic life monitoring activities. Should aquatic life use not meet the water quality

standards for Segment 2102 or future segment designation, Permittee shall develop and implement remedial management strategies, subject to Executive Director approval, to meet the designated aquatic life use.

- I. Prior to diversion of the groundwater authorized herein, if sufficiently accurate measuring devices are not available, Permittee shall install and maintain measuring device(s), at any discharge point of the groundwater and at any authorized diversion point, capable of measuring within plus or minus 5% accuracy.
- J. Permittee shall only divert the amount of groundwater discharged to the Nueces River less the 7.0% conveyance loss.
- K. Permittee shall maintain daily records of the amount of groundwater discharged and subsequently diverted and the daily conveyance losses.
- L. This temporary water use permit is junior to all existing water rights in the Nueces River Basin.
- M. Upon diversion and use of the water authorized herein, this temporary water use permit shall expire and be of no further force and effect.
- N. This temporary water use permit shall expire and become null and void three years from the date of issuance with no further Commission action. Permittee also waives the right to notice and hearing on cancellation of this water right.
- O. Permittee shall allow representatives of the South Texas Watermaster reasonable access to the property to inspect the measuring device and records.
- P. Permittee shall contact the South Texas Watermaster prior to use of the water authorized by this permit.

This temporary water use permit does not vest in its holder a permanent right and shall in no event be construed as a commitment of the Commission to approve or disapprove any other application or request by the Permittee.

Permittee agrees to be bound by the terms, conditions, and provisions contained herein, and such agreement is a condition precedent to the granting of this temporary water use permit.

All other matters requested in the application which are not specifically granted by this temporary water use permit are denied.

This temporary water use permit is subject to the requirements and orders of the South Texas Watermaster.

This temporary water use permit is issued subject to the Rules of the Texas Commission on Environmental Quality and to its right of continuing supervision.

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For the Commission

DATE ISSUED:



**Texas Commission on Environmental Quality**

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INTEROFFICE MEMORANDUM

To: Sarah Henderson, Project Manager  
Water Rights Permitting Team

Date: June 16, 2025

Through: *KA* Kathy Alexander, Ph.D., Policy and Technical Analyst  
Water Availability Division

*TG* Trent Gay, Team Leader  
Surface Water Availability Team

From: Andrew Garcia, Hydrologist  
Surface Water Availability Team

Subject: City of Corpus Christi  
WRTP 14124  
CN600131858  
Nueces River, Nueces River Basin  
Nueces County

**HYDROLOGY REVIEW**

**Application Summary**

The City of Corpus Christi (City) requests a temporary water use permit to use the bed and banks of the Nueces River, Nueces River Basin to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer within a period of three years, for subsequent diversion at diversion rates and points authorized in Certificate of Adjudication No. 21-2464, as amended, for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.

The application was declared administratively complete on June 11, 2025.

**Hydrology Review**

Resource Protection staff did not recommend instream flow requirements for this application. See the Resource Protection memo dated June 12, 2025.

The application does not request a new appropriation of water; therefore, a water availability analysis is not necessary. However, the application must be reviewed to ensure no water rights are affected by the request.

Regarding the request to use the bed and banks of the Nueces River to convey groundwater, the application included the information required in 30 Texas Administrative Code (TAC) §295.113. The application included information on conveyance losses and stated that the City will only divert discharged groundwater minus losses. The City's proposed channel losses (7.0%) are consistent with the

channel loss factors in TCEQ's Nueces WAM. Staff reviewed the estimate of losses and found them to be acceptable. Staff is of the opinion that if the City diverts only discharged groundwater, as set out in staff's recommended special conditions, no water rights should be affected by the request.

In addition, the application is subject to requirements and orders of the South Texas Watermaster. The Watermaster actively manages water rights on a daily basis and protects senior water rights in times of shortage.

## **Conclusion**

Hydrology staff can support granting the application as requested provided that any temporary permit granted includes the following special conditions:

1. Prior to diversion of the groundwater authorized herein, if sufficiently accurate measuring devices are not available, Permittee shall install and maintain measuring device(s), at the discharge point of the groundwater and at any authorized diversion point, capable of measuring within plus or minus 5% accuracy.
2. Permittee shall only divert the amount of groundwater discharged to the Nueces River less the 7.0% conveyance loss.
3. Permittee shall maintain daily records of the amount of groundwater discharged and subsequently diverted and the daily conveyance losses.

Note that the application is subject to the requirements and orders of the South Texas Watermaster.

*Andrew Garcia*

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Andrew Garcia, Hydrologist




# Texas Commission on Environmental Quality

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## INTEROFFICE MEMORANDUM

To: Sarah Henderson, Project Manager  
Water Rights Permitting Team

Date: June 12, 2025

Through: Leslie Patterson, Team Leader   
Resource Protection Team

From: Kenneth Coonrod, Aquatic Scientist  
Resource Protection Team

Subject: City of Corpus Christi  
WRTP 14124  
CN600131858  
Nueces River, Nueces River Basin  
Nueces County

Environmental reviews of water right applications are conducted in accordance with applicable provisions of the Texas Water Code (TWC) and the administrative rules of the Texas Commission on Environmental Quality (TCEQ). The provisions applicable to environmental reviews can vary according to the type and the location of the authorization requested.

### APPLICATION SUMMARY

The City of Corpus Christi (City) requests a temporary water use permit to use the bed and banks of the Nueces River, Nueces River Basin to convey a maximum of 17,920 acre-feet of groundwater per year from the Gulf Coast aquifer within a period of three years, for subsequent diversion at diversion rates and points authorized in Certificate of Adjudication No. 21-2464, as amended, for municipal purposes in Atascosa, Aransas, Bee, Duval, Jim Wells, Kenedy, Kleberg, Live Oak, Nueces, San Patricio, and Willacy counties.

### ENVIRONMENTAL ANALYSIS

**Aquatic and Riparian Habitats:** The City's bed and banks project is located on the Nueces River, a perennial water body, situated in the Floodplains and Low Terraces and Southern Subhumid Gulf Coastal Prairies ecoregions (Griffith et al. 2004).

The checklist for the Nueces River Basin identified 81 species of ichthyofauna occurring within the Lower Nueces hydrologic unit (United States Geologic Survey code 12110111) (Hendrickson and Cohen 2022). The black-spotted newt (*Notophthalmus meridionalis*) and the black rail (*Laterallus jamaicensis*), high-interest aquatic-dependent species, are known to occur in Nueces County (TPWD 2025).

Resource Protection staff requested that the City conduct aquatic life monitoring to confirm that the designated aquatic life use, as specified in the *Texas Surface Water Quality Standards*, is maintained for the duration of the project. The City subsequently submitted an *Aquatic Life Use and Assessment Plan for the Nueces River Below Lake Corpus Christi*. Resource Protection staff reviewed the plan and recommend that the City conduct aquatic life monitoring in accordance with the plan and TCEQ's most recently approved *Surface Water Quality Monitoring Procedures*, as outlined in the special conditions below.

On February 12, 2014, the TCEQ adopted environmental flow standards for the Nueces River and Corpus Christi and Baffin Bays (Title 30 Texas Administrative Code (TAC) Chapter 298 Subchapter F). These environmental flow standards are considered adequate to support a sound ecological environment (Title 30 TAC § 298.410). The City does not request a new appropriation of water or an amendment that increases the amount of water stored, taken, or diverted; therefore, the environmental flow standards do not apply.

**Recreational Uses:** The Nueces River Below Lake Corpus Christi (Segment 2102) has a designated primary contact recreation 1 use (TCEQ 2022).

**Water Quality:** The Nueces River Below Lake Corpus Christi (Segment 2102) has a designated high aquatic life and public water supply use (TCEQ 2022). The Nueces River from the downstream end of the segment upstream to FM 666 is listed on the *Texas Integrated Report – Texas 303(d) List (Category 5)* as having a Watershed Protection Plan under development or accepted by the Environmental Protection Agency for total dissolved solids (TDS) in water (TCEQ 2024).

The City requests to discharge groundwater from the Gulf Coast aquifer into the Nueces River for subsequent diversion. The City provided groundwater quality data for three active wells, Wells 1, 2, and 3, and will provide data for additional wells when it becomes available. Resource Protection staff reviewed the City's data and identified concerns for elevated levels of TDS.

Due to the concerns identified for TDS, Resource Protection staff requested that the City submit a water quality monitoring plan. The City submitted a *Source Water Monitoring Plan* (plan), which identified an initial trigger level of 1,000 mg/L for TDS and provided a series of action levels and responses

based on the duration of the percentage increase in observed TDS from baseline conditions when groundwater is being discharged. In the plan, the City proposed to monitor water quality at a point 100 feet upstream of Discharge Point 1, a point 50 feet downstream of Discharge Point 1, a point 50 feet downstream of Discharge Point 2, and a point 300 feet downstream of Discharge Point 3.

The City indicated that it would notify the South Texas Watermaster if any changes to the plan were required. Staff notes that the City will need to submit any proposed changes to the plan to the Executive Director's Water Rights Permitting and Availability Section to ensure that any proposed changes are consistent with the special conditions in the permit.

Resource Protection staff recommend the special conditions as outlined below to ensure that the effects of the permit on water quality in the project area are monitored and any water quality issues resulting from operations under the permit are addressed.

**Freshwater Inflows:** Freshwater inflows are critical for maintaining the historical productivity of bays and estuaries along the Gulf Coast. The application does not request a new appropriation of water; therefore, the City's request should not have any impact to Nueces Bay or Corpus Christi Bay.

## RECOMMENDATIONS

Resource Protection staff recommend the following Special Conditions be included in the proposed temporary permit, if granted:

1. Permittee shall submit groundwater quality data to the Executive Director for any additional wells as the data becomes available. Water quality information should include, but not be limited to, chloride, sulfate, total dissolved solids (TDS), pH, and temperature. Temperature must be measured on site at the time the groundwater sample is collected.
2. This temporary permit is issued contingent upon implementation of Permittee's *Source Water Monitoring Plan*. Any modifications to the plan must be approved by the Executive Director. Should Permittee fail to implement the plan or notify the Executive Director of any modifications to the plan, Permittee shall immediately cease operations under this permit or voluntarily forfeit the permit. If Permittee fails to cease operations or forfeit the permit, the Commission may begin proceedings to cancel the permit. Permittee shall immediately notify the Executive Director of any proposed modifications to the *Source Water Monitoring Plan* and provide copies of the appropriate documents effectuating such changes.

3. Permittee shall conduct water quality monitoring in accordance with the *Source Water Monitoring Plan* and consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures* during those times that groundwater is being discharged and diverted under this bed and banks authorization. Continuous water quality monitoring shall be conducted at the following locations:
  - a) one point 100 feet upstream of Discharge Point 1 (Instrument A);
  - b) one point 50 feet downstream of Discharge Point 1 (Instrument B);
  - c) one point 50 feet downstream of Discharge Point 2 (Instrument C); and
  - d) one point 300 feet downstream of Discharge Point 3 (Instrument D).
4. Permittee shall commence water quality monitoring 30 days prior to groundwater discharge to determine baseline conditions.
5. Permittee shall monitor water quality in the Nueces River in accordance with its *Source Water Monitoring Plan* which includes the following action levels, triggers, and responses. Permittee shall maintain records of implementation of Action Levels 1 through 3 and document the Response. Permittee shall provide the records to the Executive Director upon request.

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 <b>AND</b> 20 – 29.9% greater than A	Downstream discharge is 20 – 29.9% higher than the upstream value. <ul style="list-style-type: none"> <li>• Data is reviewed daily.</li> <li>• If levels remain above 20% for 6 hours, staff are dispatched to site.</li> <li>• Staff confirm equipment is operating properly and assess environmental conditions.</li> <li>• If levels remain elevated for 48 hours, status moves to Action Level 2.</li> </ul>



Action Level	Trigger	Response
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 <b>AND</b> 30-39% greater than A	<p>Downstream discharge is 30-39.9% higher than the upstream value <b>OR</b> downstream values have remained in Action Level 1 for 48 hours.</p> <ul style="list-style-type: none"> <li>• All steps in Action Level 1 occur.</li> <li>• Monitoring frequency is increased to hourly.</li> <li>• Wells currently pumping are reduced by 10%.</li> <li>• If levels remain elevated for 48 hours, status moves to Action Level 3.</li> </ul>
Action Level 3	Instruments B, C, and/or D 8-hour average TDS or increased 4-hour TDS averages >1,000 mg/L <b>AND</b> 40%+ greater than A	<p>Downstream discharge is more than 40% higher than the upstream value <b>OR</b> downstream values have remained in Action Level 2 for 48 hours.</p> <ul style="list-style-type: none"> <li>• All steps in Action Levels 1 and 2 occur.</li> <li>• Wells currently pumping are reduced in increments of 10% and/or increases of water released from Wesley Seale Dam occur.</li> <li>• Further adjustments are made every 8 hours in groundwater discharge and/or Lake Corpus Christi flow until TDS levels return to Action Level 2.</li> <li>• Concentration 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.</li> </ul>

6. Permittee shall conduct initial pre-project aquatic life use monitoring in accordance with Permittee's *Aquatic Life Use Assessment Plan for the Nueces River Below Lake Corpus Christi* and consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures*. Permittee shall conduct the conventional water-chemistry sample component during each aquatic life monitoring event.
7. Permittee shall continue aquatic life monitoring on an annual basis consistent with TCEQ's most recently approved *Surface Water Quality Monitoring Procedures* during any year or part of the year when permittee is diverting discharged groundwater under this permit. Aquatic life monitoring during any year in which it is required shall include a twice per year assessment of fish and macroinvertebrate communities and a physical habitat assessment, including the conventional water-chemistry sample component. All aquatic biological monitoring and physical habitat assessments shall take place in the index period (March 15 – October 15) with at least one of the twice per year monitoring events taking place in the critical period (July 1 – September 15).
8. Permittee shall submit an annual report, starting on December 31, 2025, documenting aquatic life monitoring activities. The report shall contain a description of the field work performed, an assessment of water quality and biotic community assemblages, the biological metric scoring criteria used to assess compliance with the designated aquatic life use, a data comparison with previous years, any conclusions, and any actions taken by Permittee in response to aquatic life monitoring activities. Should aquatic life use not meet the water quality standards for Segment 2102 or future segment designation, Permittee shall develop and implement remedial management strategies, subject to Executive Director approval, to meet the designated aquatic life use.

#### **LITERATURE CITED**

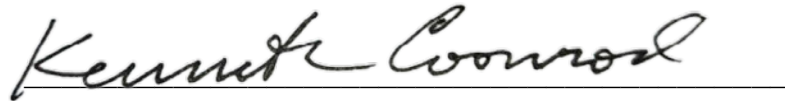
Griffith, G.E., S.A. Bryce, J.M. Omernik, J.A. Comstock, A.C. Rogers, B. Harrison, S.L. Hatch, and D. Bezanson. 2004. Ecoregions of Texas. (2-sided color poster with map, descriptive text, and photographs). U.S. Geological Survey, Reston, VA. Scale 1:2,500,000.

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A handwritten signature in black ink, reading "Kenneth Coonrod", is positioned above a solid horizontal line.

Kenneth Coonrod, Aquatic Scientist  
Resource Protection Team

## Sarah Henderson

---

**From:** Esteban Ramos [REDACTED]  
**Sent:** Friday, June 13, 2025 3:02 PM  
**To:** Sarah Henderson  
**Subject:** Corpus Christi Groundwater Application  
**Attachments:** CCC\_QAQC\_WIP\_CCW-WELLS.pdf

Hello Sarah

The Team had promise as well water quality data was collected, we would provide that information. Please find attached information for Wells 4. If you have any questions, please let me know.

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







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

## Analytical Report



<b>Client Info</b>	Water Quality Corpus Christi Water 13101 Leopard St. Corpus Christi, TX 78410	<b>Report# /Lab ID#:</b> AC58783 <b>Sample Name:</b> WELL 4 <b>Date Received:</b> 05/22/2025 <b>Date Sampled:</b> 05/22/2025	<b>Report Date:</b> 5/30/25 <b>Time:</b> 08:47 <b>Time:</b> 08:04
<b>Phone:</b>	<b>EMAIL:</b> [REDACTED]		

Parameter	Result	Unit	Flag	RL s	Date/Time Analyzed	Method	Analyst	Analysis Comments
Chloride by IC	1557.7	mg/l	D	37	5/22/25 16:57	EPA 300.0	FK	
Sulfate	589.4	mg/L	D	18	5/22/25 16:57	EPA 300.0	FK	
Total Dissolved Solids	3450	mg/L		250	5/23/25 14:07	SM 2540 C	VP	

### 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: crystal@cc texas.com




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



Sampler: (PLEASE PRINT) Len Dunphy

[illegible]

Relinquished By:	Date: 5/22/25	Time: 0847	**** For Laboratory Use Only ****	
Received By: [Signature]	Date: 5/22/25	Time: 0847	Sample(s) on ice: YES NO	pH Strip Lot/ ID:
Relinquished By:	Date:	Time:	Receiving Temp (°C): 3.3	pH < 2? YES NO Line # (s):
Received By:	Date:	Time:	Corrected Temp (°C): 3.3	Data Flag(s):
			Temp. Device ID: B	
Special Instructions/Comments: Well 4: pH - 8.07 Temp - 26.2°C, Dissolved Oxygen - 3.36 mg/L River: pH - 8.43, Temp - 25.7 °C, Dissolved Oxygen - 6.01 mg/L Other*: Line 1&2 Sulfate			<div>  <div>Corpus Christi Water CCW Serving the Coastal Bend</div> </div>	



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

## Analytical Report



<b>Client Info</b>	Water Quality Corpus Christi Water 13101 Leopard St. Corpus Christi, TX 78410	<b>Report# /Lab ID#:</b> AC58784 <b>Sample Name:</b> NUECES RIVER @ WELL 4 <b>Date Received:</b> 05/22/2025 <b>Time:</b> 08:47 <b>Date Sampled:</b> 05/22/2025 <b>Time:</b> 07:52	<b>Report Date:</b> 5/30/25
<b>Phone:</b>	<b>EMAIL:</b> [REDACTED]		

Parameter	Result	Unit	Flag	RL s	Date/Time Analyzed	Method	Analyst	Analysis Comments
Chloride by IC	232.7	mg/l	D	9.2	5/22/25 17:29	EPA 300.0	FK	
Sulfate	88.44	mg/L	D	4.5	5/22/25 17:29	EPA 300.0	FK	
Total Dissolved Solids	710	mg/L		250	5/23/25 14:07	SM 2540 C	VP	

### 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 .

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**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: crystal@cc texas.com




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



Sampler: (PLEASE PRINT) Len Dunphy

[illegible]

Relinquished By:	Date: 5/22/25	Time: 0847	**** For Laboratory Use Only ****	
Received By: [Signature]	Date: 5/22/25	Time: 0847	Sample(s) on ice: YES NO	pH Strip Lot/ ID:
Relinquished By:	Date:	Time:	Receiving Temp (°C): 3.3	pH < 2? YES NO Line # (s):
Received By:	Date:	Time:	Corrected Temp (°C): 3.3	Data Flag(s):
			Temp. Device ID: B	
Special Instructions/Comments: Well 4: pH - 8.07 Temp - 26.2°C, Dissolved Oxygen - 3.36 mg/L River: pH - 8.43, Temp - 25.7 °C, Dissolved Oxygen - 6.01 mg/L Other*: Line 1&2 Sulfate			<div>  <div>Corpus Christi Water CCW Serving the Coastal Bend</div> </div>	

# 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**

Brooke T. Paup, *Chairwoman*  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 11, 2025

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

**VIA E-MAIL**

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](mailto: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

---

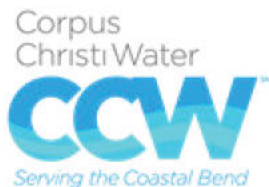
**From:** Esteban Ramos <[REDACTED]>  
**Sent:** Monday, June 9, 2025 1:55 PM  
**To:** Sarah Henderson  
**Cc:** Chris Kozlowski; Humberto Galvan; Kathy Alexander; Andrew Molly [Drew]; Carlos Rubinstein; David Buzan; Nick Winkelmann; Herman Settemeyer; Maria Corona; Crystal Ybanez  
**Subject:** RE: 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 6<sup>th</sup>, 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



---

**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

**[ [ WARNING: External e-mail. Avoid clicking on links or attachments. We will NEVER ask for a password, username, payment or to take action from an email. When in doubt, please forward to [SecurityAlert@cctexas.com](mailto:SecurityAlert@cctexas.com). ] ]**

---

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



2726 Holly Road • Corpus Christi, Texas 78415  
Phone 361-826-1800 • Fax 361-826-1889 • [www.cctexas.com](http://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:  
Revised 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 Device
- h. The attached enclosed map identifies the discharge point.

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

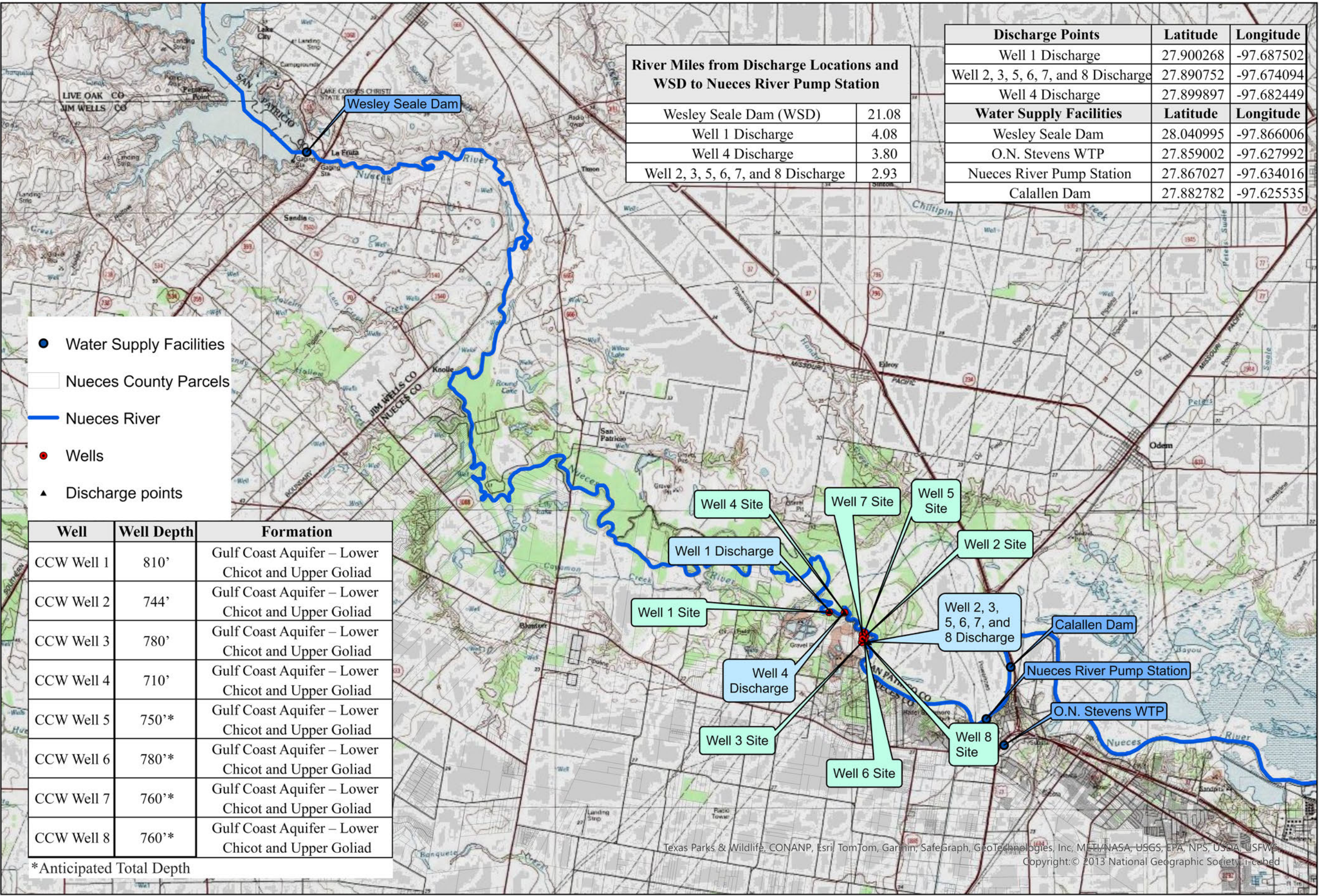
- a. The amount of water that will be discharged at the point is approximately 13,440 acre-feet per year. The discharged amount includes the amount needed for use and to compensate for any losses.
- b. Water will be discharged at this point at a maximum rate of 2 mgd or 3.1 cfs or 1390 gpm, for each 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 Device
- 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 Device
- g. The attached enclosed map identifies the discharge point.



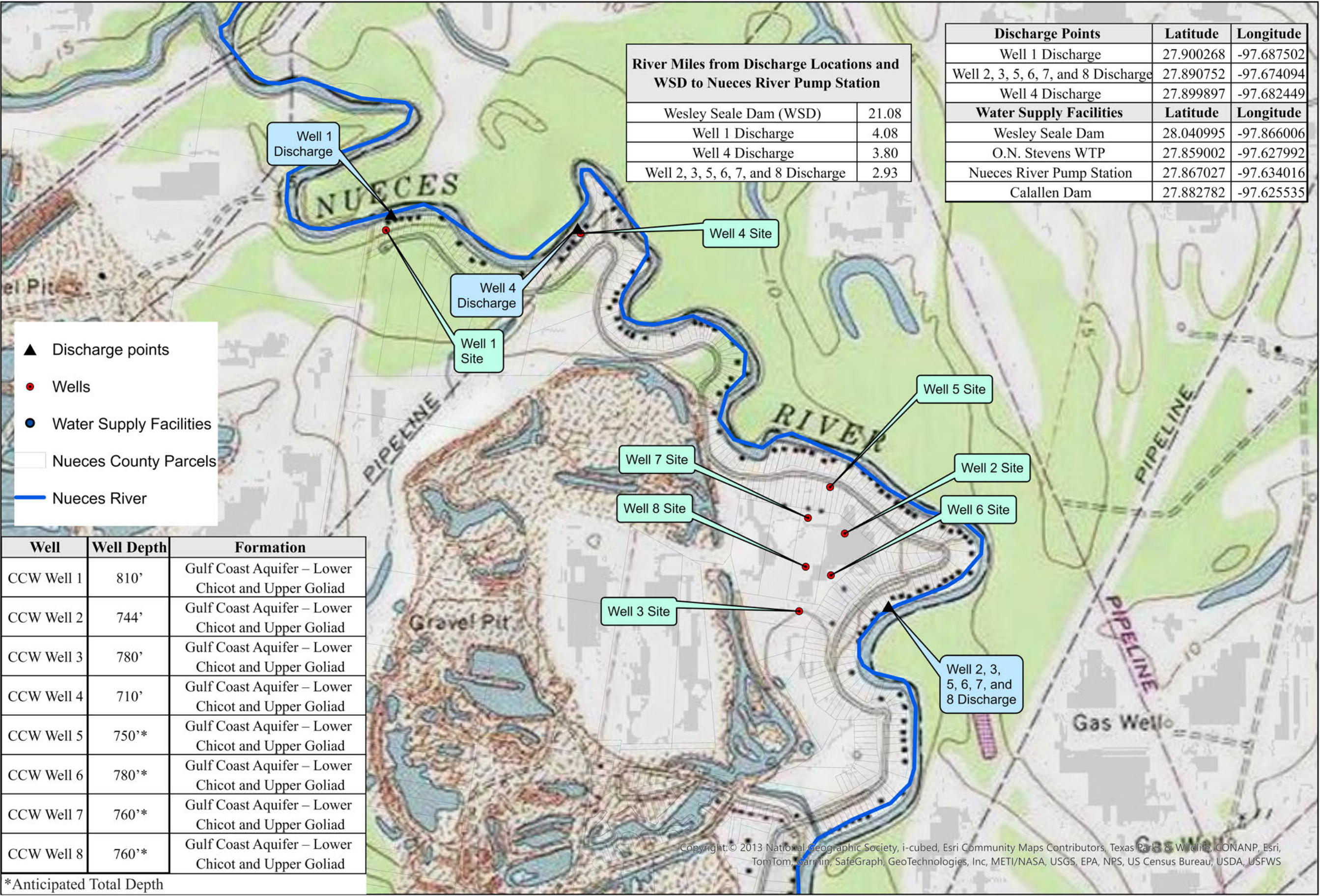


River Miles from Discharge Locations and WSD to Nueces River Pump Station

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







# **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

1.0	INTRODUCTION .....	2
1.1	Historical Data Assessment .....	3
1.2	Proposed Wells .....	4
2.0	AQUATIC LIFE USE ASSESSMENT MONITORING LOCATIONS .....	5
2.1	Habitat .....	7
2.2	Hydrology .....	7
2.3	Water Quality .....	8
3.0	METHODS .....	9
3.1	Hydrology .....	9
3.2	Field Water Quality .....	9
3.3	Habitat characterization .....	10
3.4	Nekton Sampling .....	10
3.5	Benthic Macroinvertebrates .....	11
3.6	Water Chemistry .....	12
4.0	FREQUENCY AND TIMING .....	12
5.0	REPORTING .....	12
6.0	REFERENCES .....	13

## Figures

Figure 1	TDS Concentrations in the Nueces River, Segment 2102 .....	4
Figure 2	Locations of Groundwater Wells and Their Discharges to the Nueces River .....	5
Figure 3	Study Area with all Monitoring Locations .....	6
Figure 4	Study Area .....	6
Figure 5	Aquatic Life Use Assessment Reach .....	7

## **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

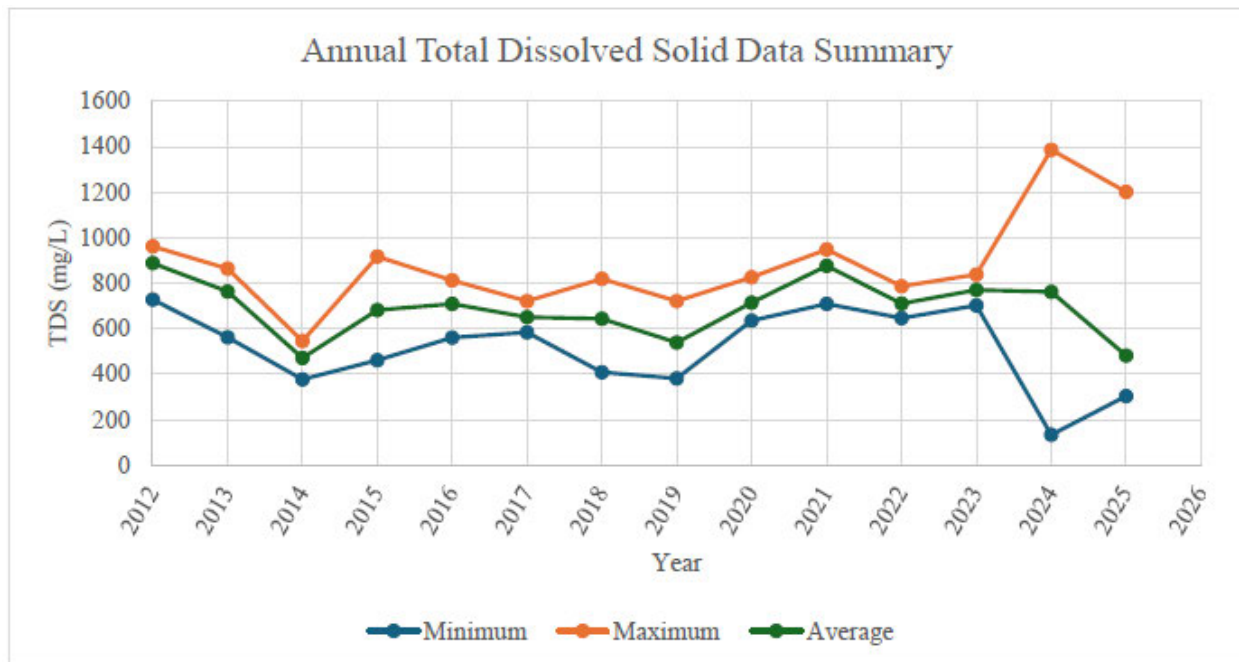
The TCEQ lists the Nueces River below Lake Corpus Christi as an impaired water body due to total dissolved solid (TDS) concentrations above the segment water quality standard of an annual average of 500 mg/L TDS. This designation appears on the TCEQ 303(d) list from 2012 to 2022 and was relisted in 2024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

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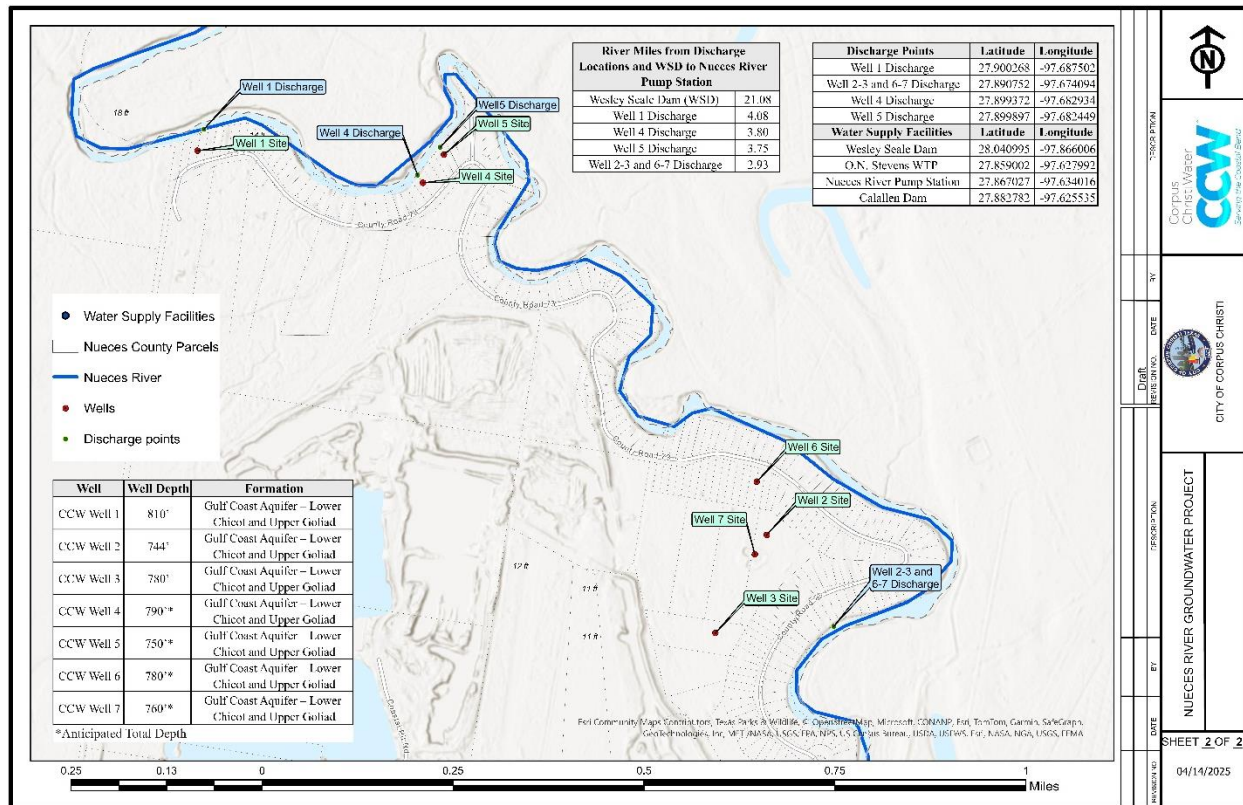
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TDS Concentrations in the Nueces River, Segment 2102.  
Figure produced by the City of Corpus Christi

## 1.2 PROPOSED WELLS

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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 1 discharge 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.



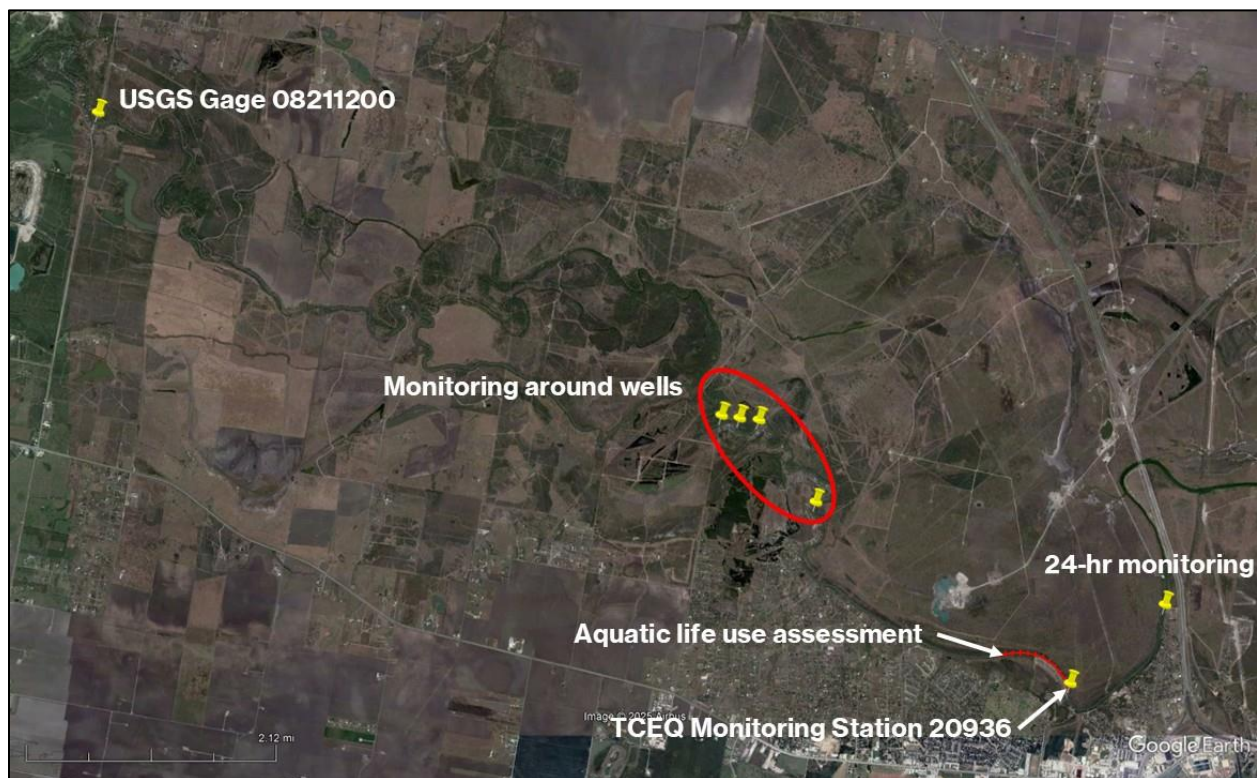


**Figure 2**  
Locations of Groundwater Wells and Their Discharges to the Nueces River  
Figure produced by the City of Corpus Christi

## 2.0 AQUATIC LIFE USE ASSESSMENT MONITORING LOCATIONS

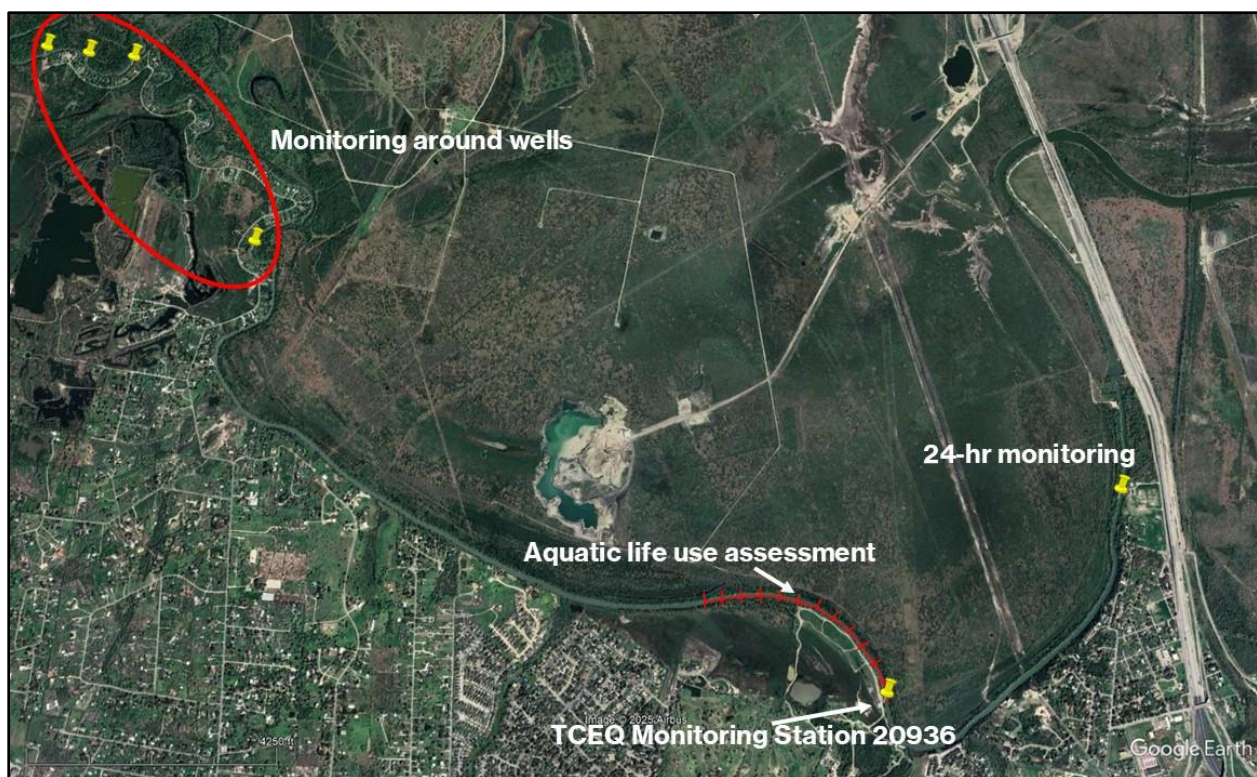
ALU assessment monitoring is proposed for a 1,200 m long reach upstream from the boat ramp in Hazel Bazemore Park (**Figures 3, 4, and 5**). The Hazel Bazemore Park boat ramp is selected as the downstream end of the study reach because it is also a long-term surface water quality monitoring station, 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**

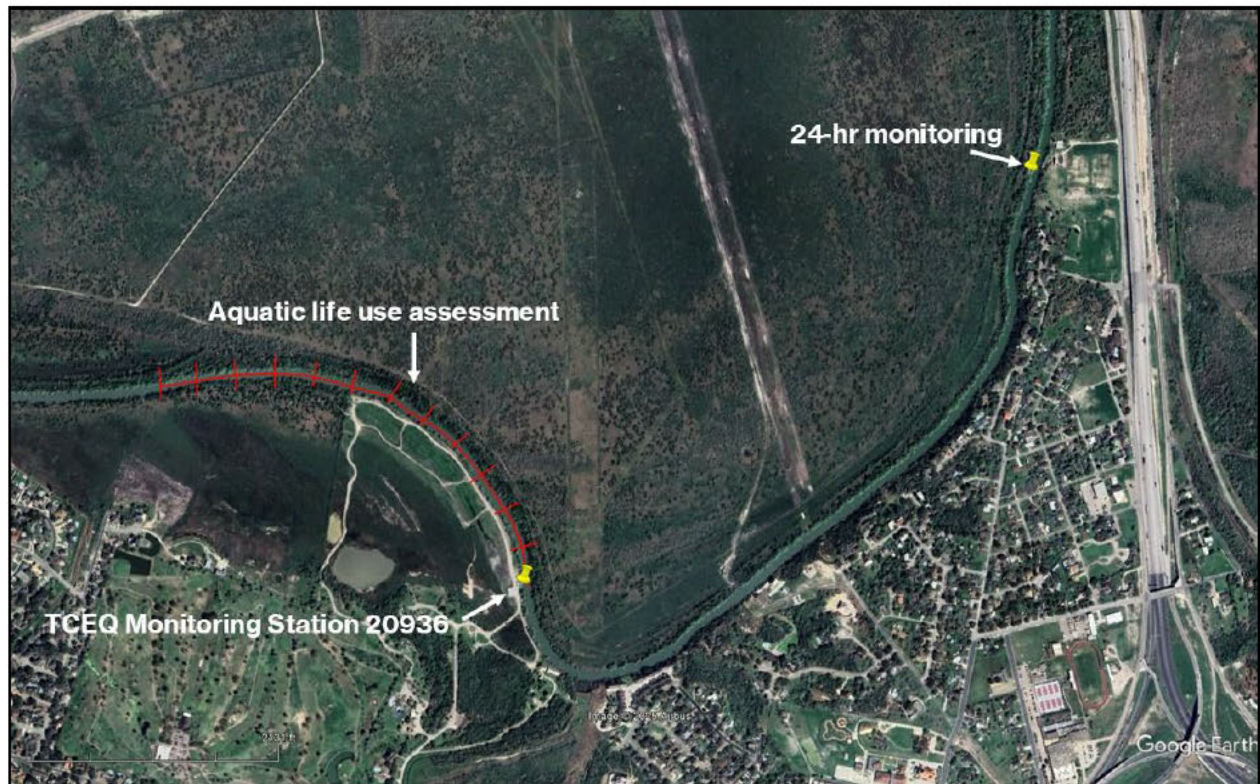
Study Area with all Monitoring Locations



**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  $\alpha$ , and pheophytin  $\alpha$  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.
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- \_\_\_\_\_. 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.



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

1.0	INTRODUCTION .....	2
1.1	Historical Data Assessment .....	3
1.2	Proposed Wells .....	4
2.0	AQUATIC LIFE USE ASSESSMENT MONITORING LOCATIONS .....	5
2.1	Habitat .....	7
2.2	Hydrology .....	7
2.3	Water Quality .....	8
3.0	METHODS .....	9
3.1	Hydrology .....	9
3.2	Field Water Quality .....	9
3.3	Habitat characterization .....	10
3.4	Nekton Sampling .....	10
3.5	Benthic Macroinvertebrates .....	11
3.6	Water Chemistry .....	12
4.0	FREQUENCY AND TIMING .....	12
5.0	REPORTING .....	12
6.0	REFERENCES .....	13

## Figures

Figure 1	TDS Concentrations in the Nueces River, Segment 2102 .....	4
Figure 2	Locations of Groundwater Wells and Their Discharges to the Nueces River .....	5
Figure 3	Study Area with all Monitoring Locations .....	6
Figure 4	Study Area .....	6
Figure 5	Aquatic Life Use Assessment Reach .....	7

## **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

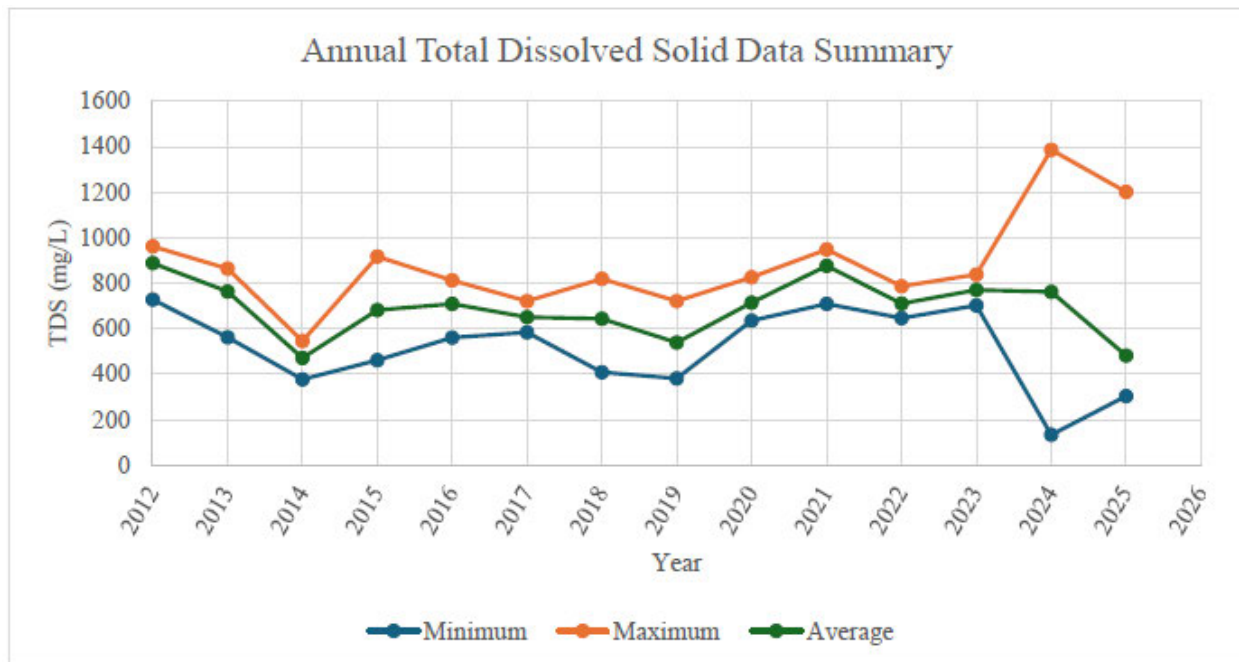
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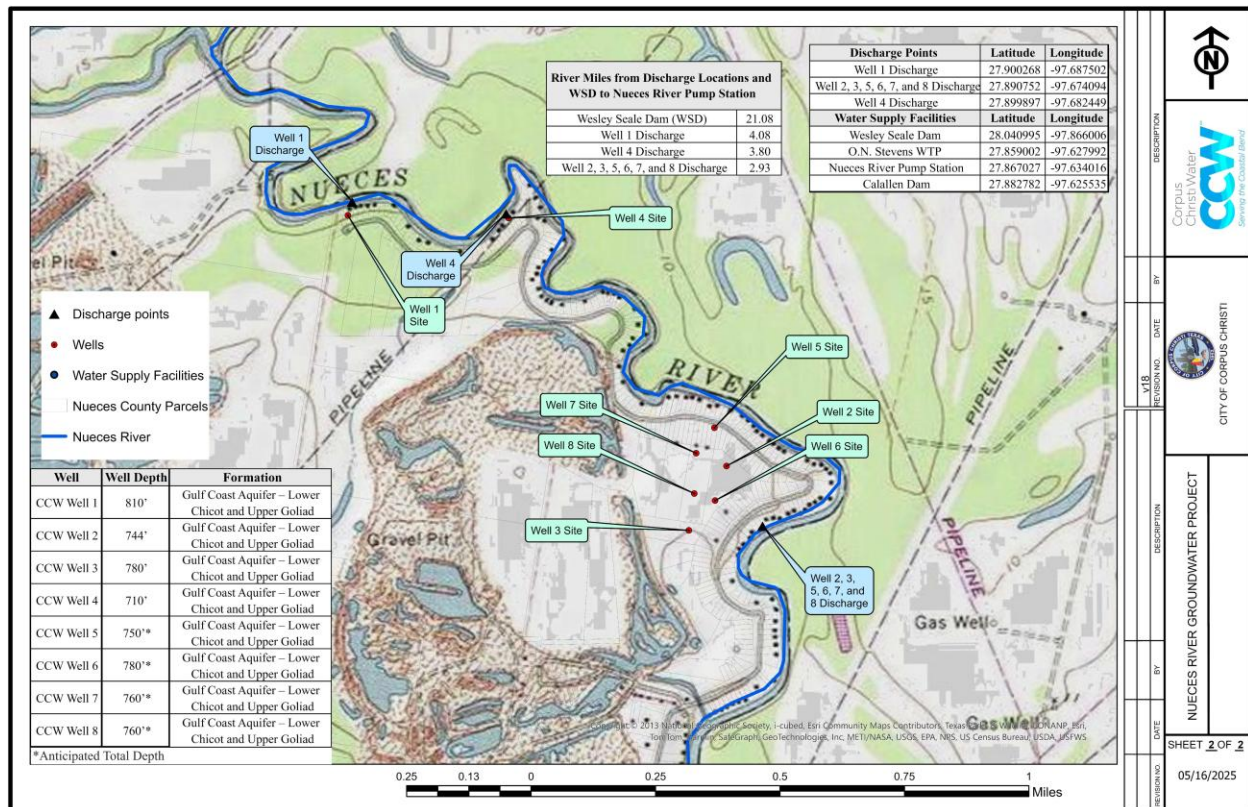


**Figure 1**  
TDS Concentrations in the Nueces River, Segment 2102.  
Figure produced by the City of Corpus Christi

## 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.

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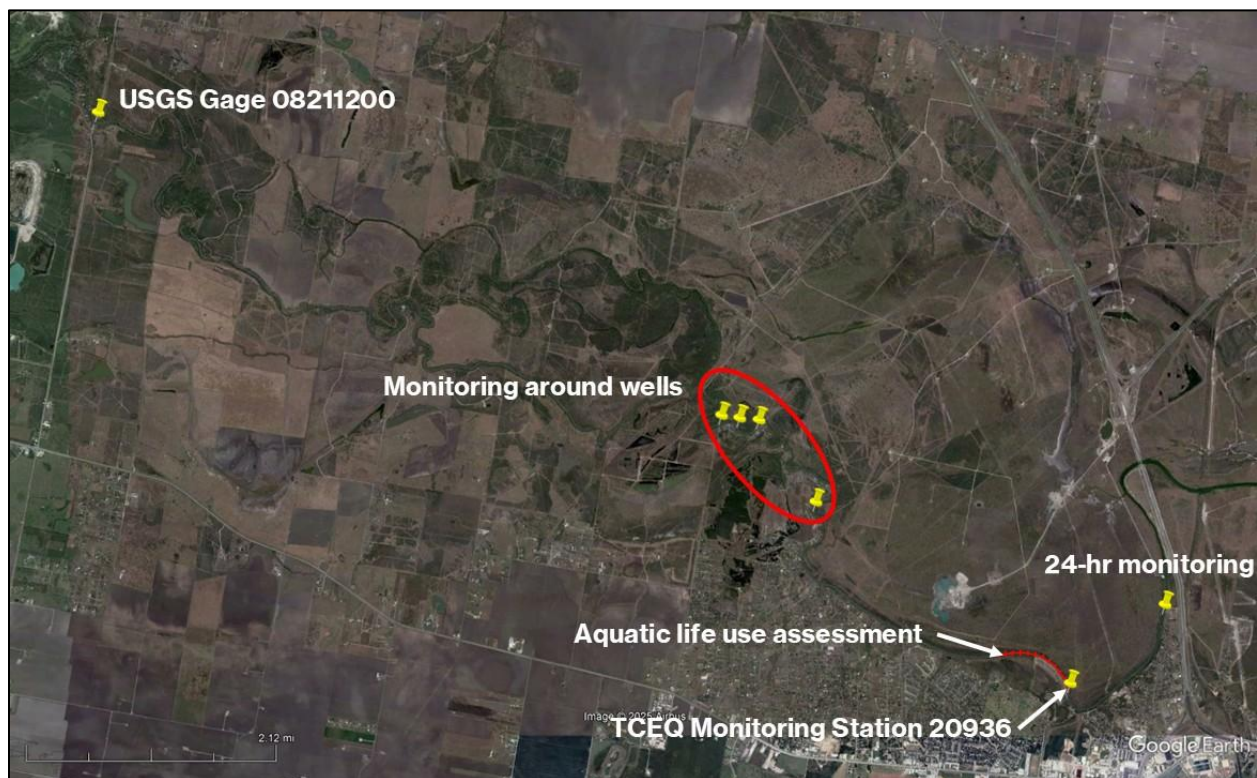
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ALU assessment monitoring is proposed for a 1,200 m long reach upstream from the boat ramp in Hazel Bazemore Park (**Figures 3, 4, and 5**). The Hazel Bazemore Park boat ramp is selected as the downstream end of the study reach because it is also a 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.

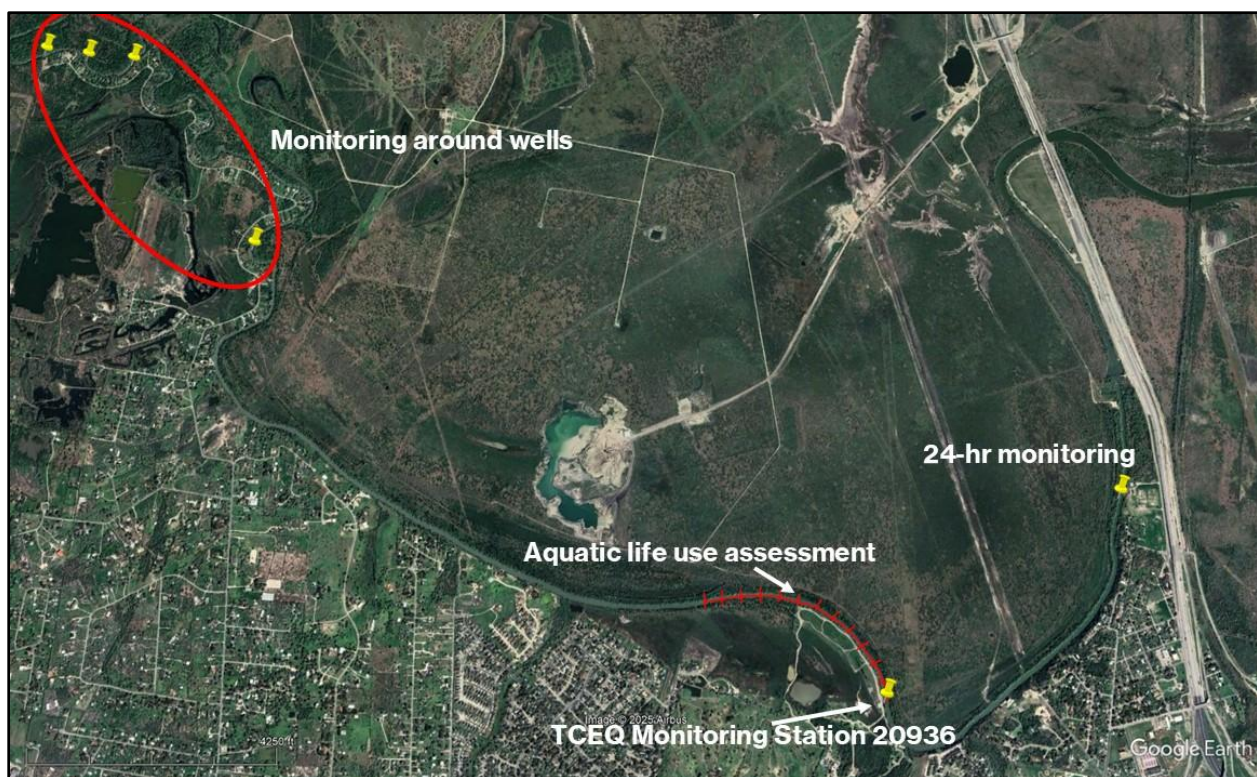
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**Figure 3**

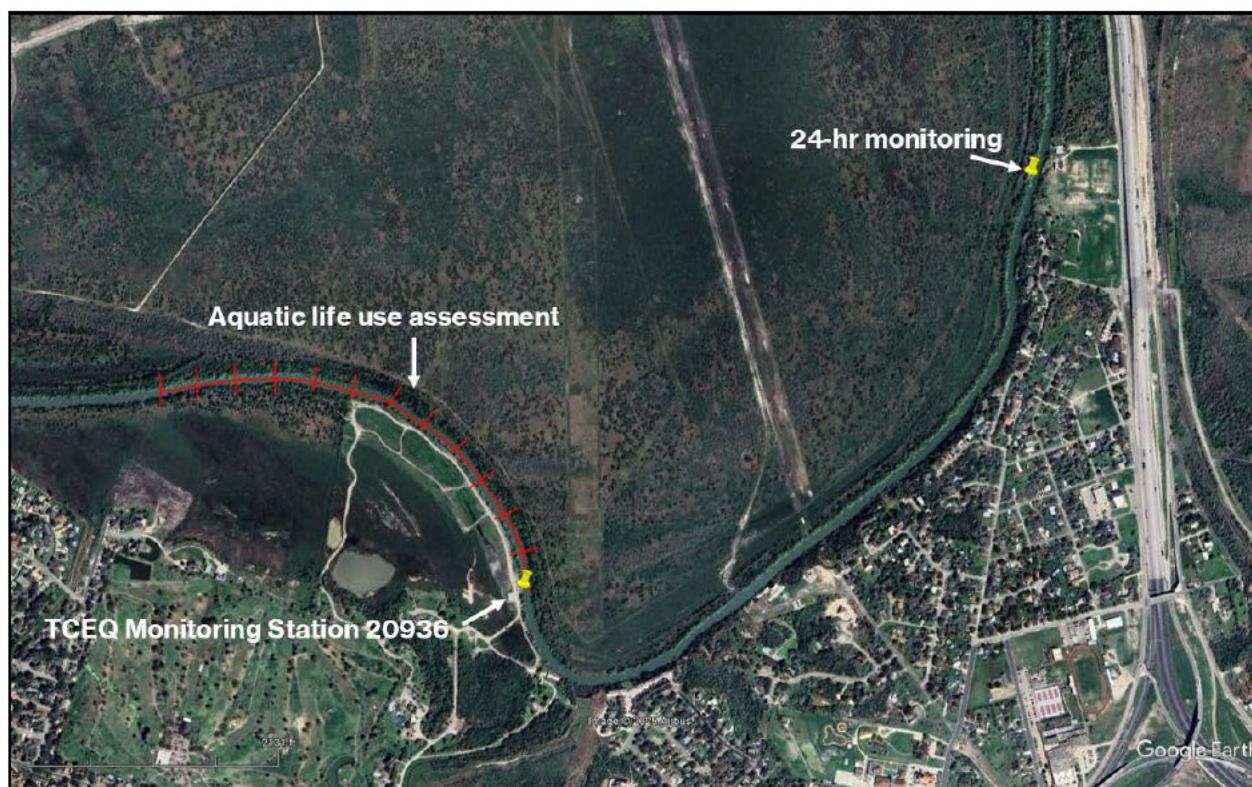
Study Area with all Monitoring Locations



**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.

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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  $\alpha$ , and pheophytin  $\alpha$  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)





2726 Holly Road • Corpus Christi, Texas 78415  
Phone 361-826-1800 • Fax 361-826-1889 • [www.cctexas.com](http://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

Brooke T. Paup, *Chairwoman*  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 6, 2025

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

**VIA E-MAIL**

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](mailto: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







2726 Holly Road • Corpus Christi, Texas 78415  
Phone 361-826-1800 • Fax 361-826-1889 • [www.cctexas.com](http://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]

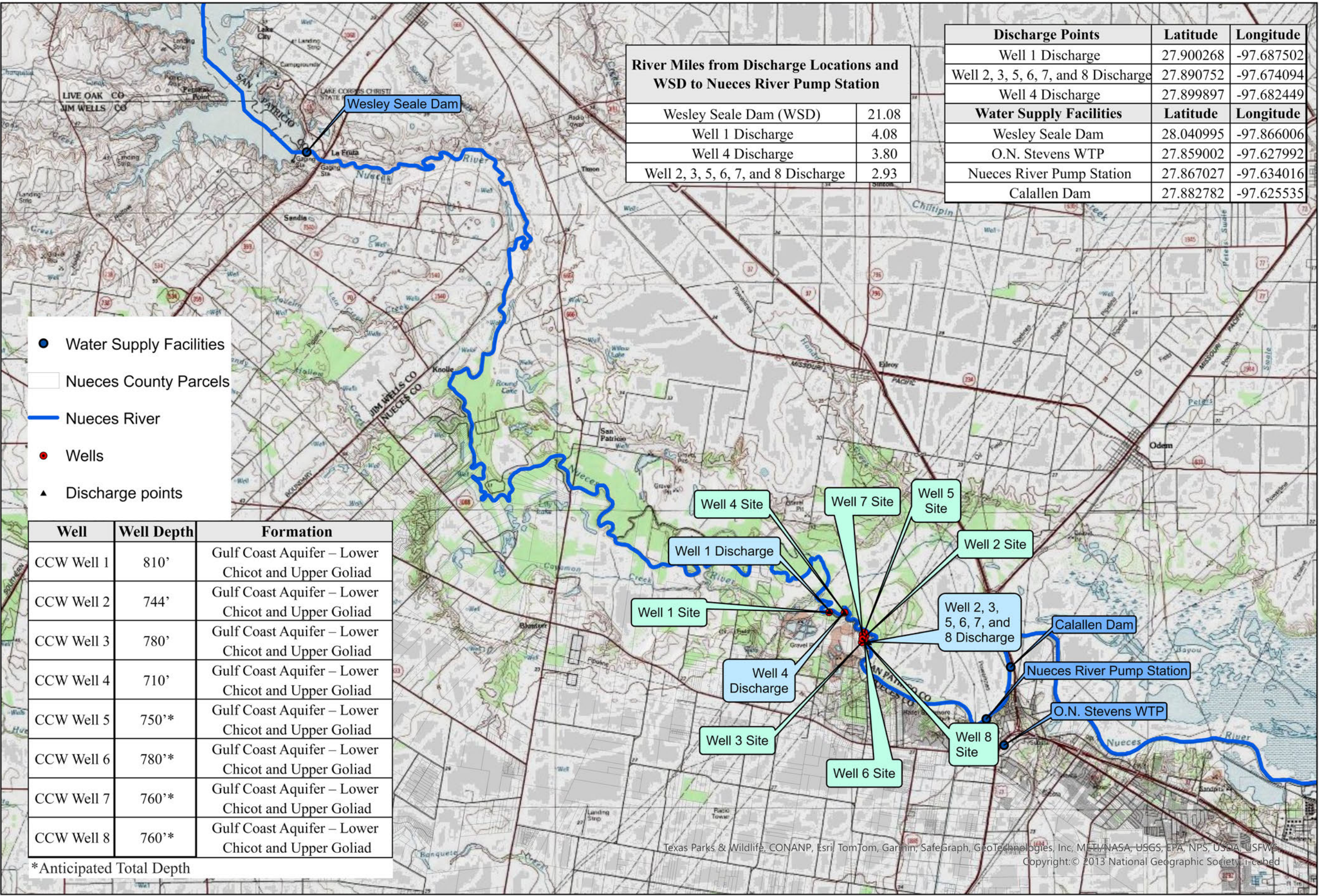
Thank you



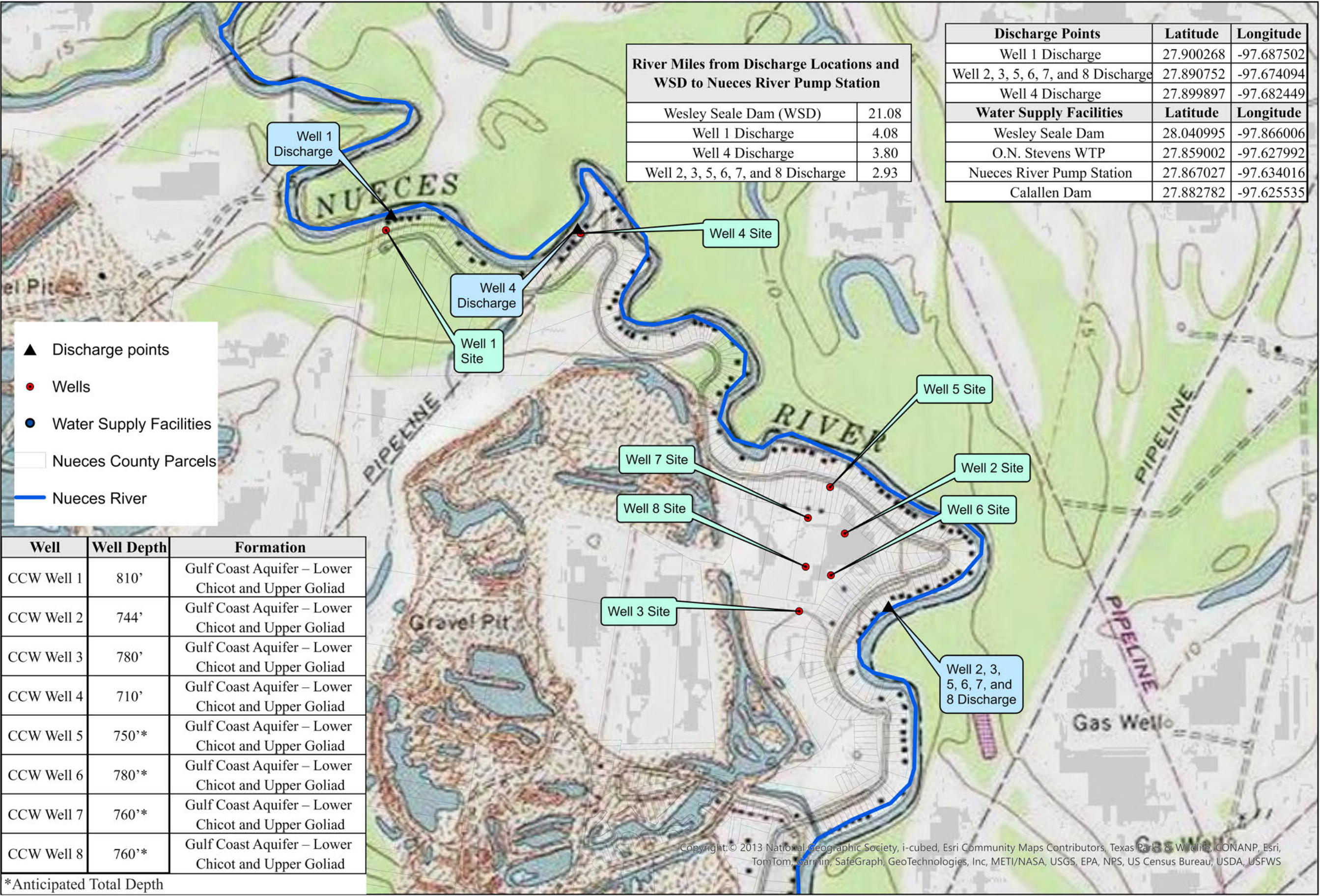
Esteban Ramos  
Water Resource Manager  
Corpus Christi Water  
City of Corpus Christi

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)













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

1.0	INTRODUCTION .....	2
1.1	Historical Data Assessment .....	3
1.2	Proposed Wells .....	4
2.0	AQUATIC LIFE USE ASSESSMENT MONITORING LOCATIONS .....	5
2.1	Habitat .....	7
2.2	Hydrology .....	7
2.3	Water Quality .....	8
3.0	METHODS .....	9
3.1	Hydrology .....	9
3.2	Field Water Quality .....	9
3.3	Habitat characterization .....	10
3.4	Nekton Sampling .....	10
3.5	Benthic Macroinvertebrates .....	11
3.6	Water Chemistry .....	12
4.0	FREQUENCY AND TIMING .....	12
5.0	REPORTING .....	12
6.0	REFERENCES .....	13

## Figures

Figure 1	TDS Concentrations in the Nueces River, Segment 2102 .....	4
Figure 2	Locations of Groundwater Wells and Their Discharges to the Nueces River .....	5
Figure 3	Study Area with all Monitoring Locations .....	6
Figure 4	Study Area .....	6
Figure 5	Aquatic Life Use Assessment Reach .....	7

## **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).

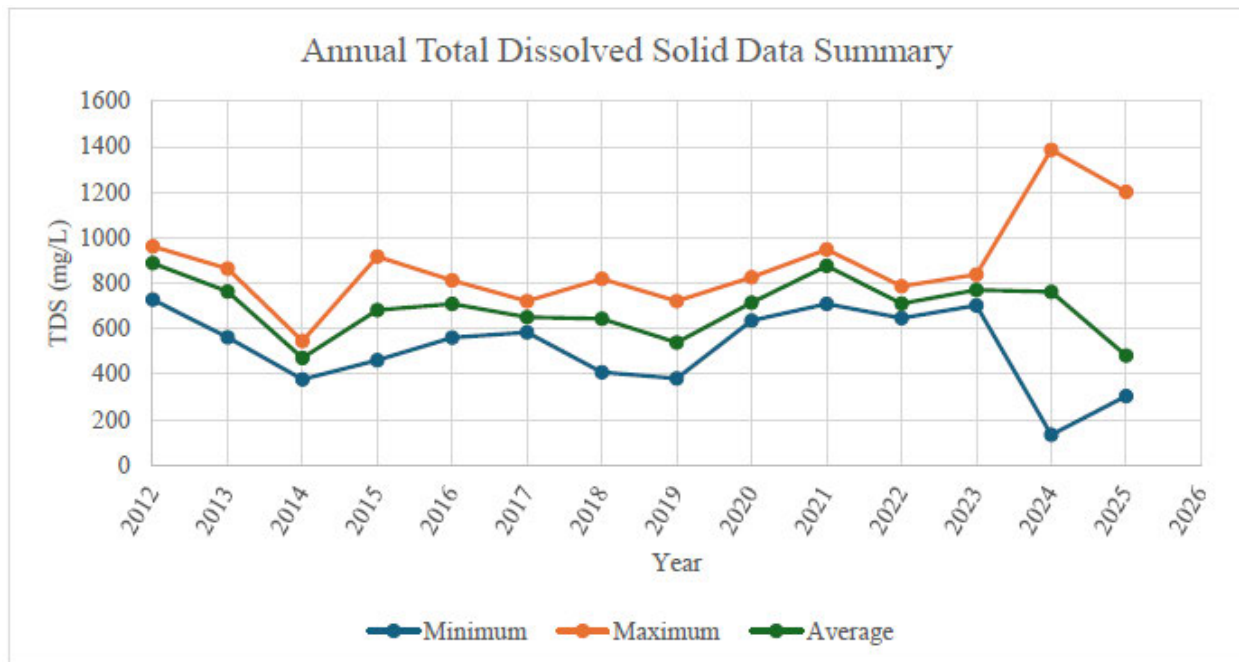
To evaluate water quality in the river segment at the groundwater project location, historical data were collected and analyzed from multiple sources. From 2015 to 2025, monthly samples from water supply intakes on the Nueces River were analyzed at a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory for 28 parameters including conductivity and TDS. Conductivity ranged from 211  $\mu\text{S}/\text{cm}$  to 1,664  $\mu\text{S}/\text{cm}$  with an average of 1,092  $\mu\text{S}/\text{cm}$ . 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  $\mu\text{S}/\text{cm}$  to 2,133  $\mu\text{S}/\text{cm}$  with an average of 1,079  $\mu\text{S}/\text{cm}$ . 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  $\mu\text{S}/\text{cm}$  to 1,480  $\mu\text{S}/\text{cm}$  and averaged 1,118  $\mu\text{S}/\text{cm}$  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.



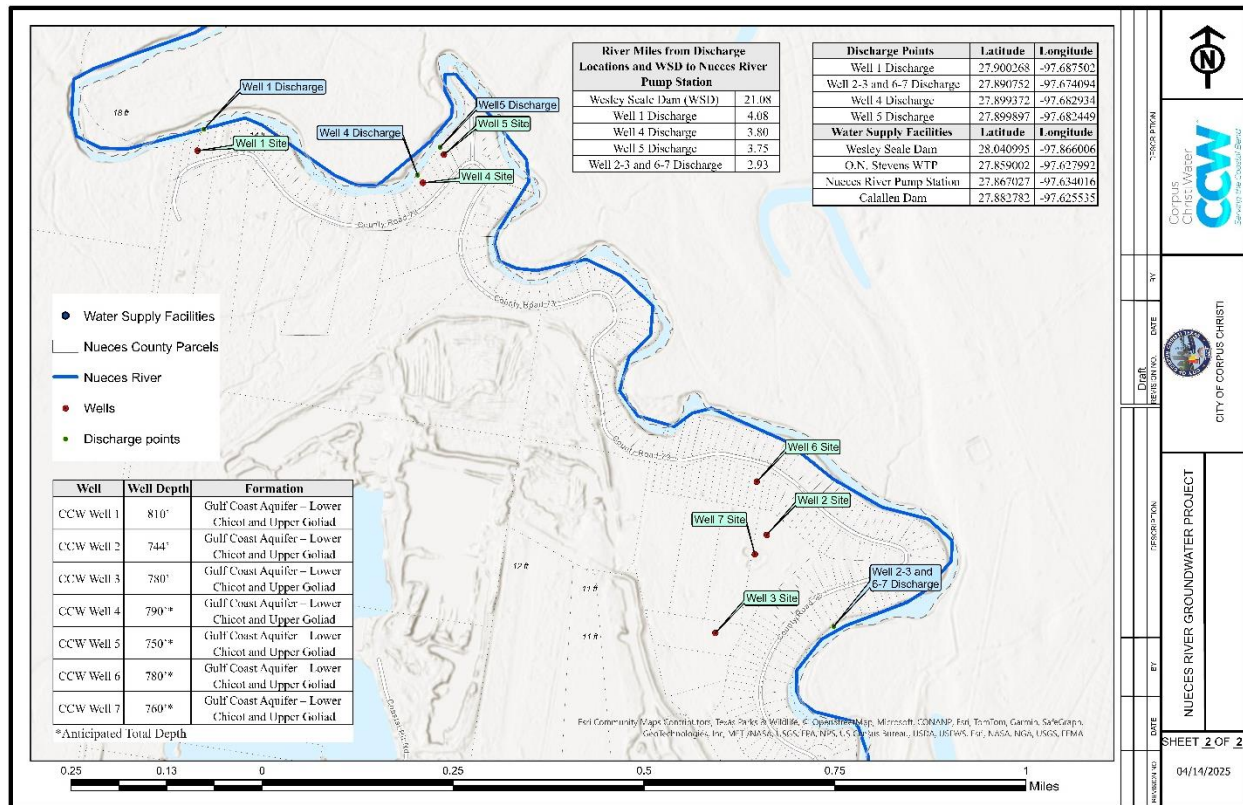


**Figure 1**  
TDS Concentrations in the Nueces River, Segment 2102.  
Figure produced by the City of Corpus Christi

## 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 1 discharge 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.



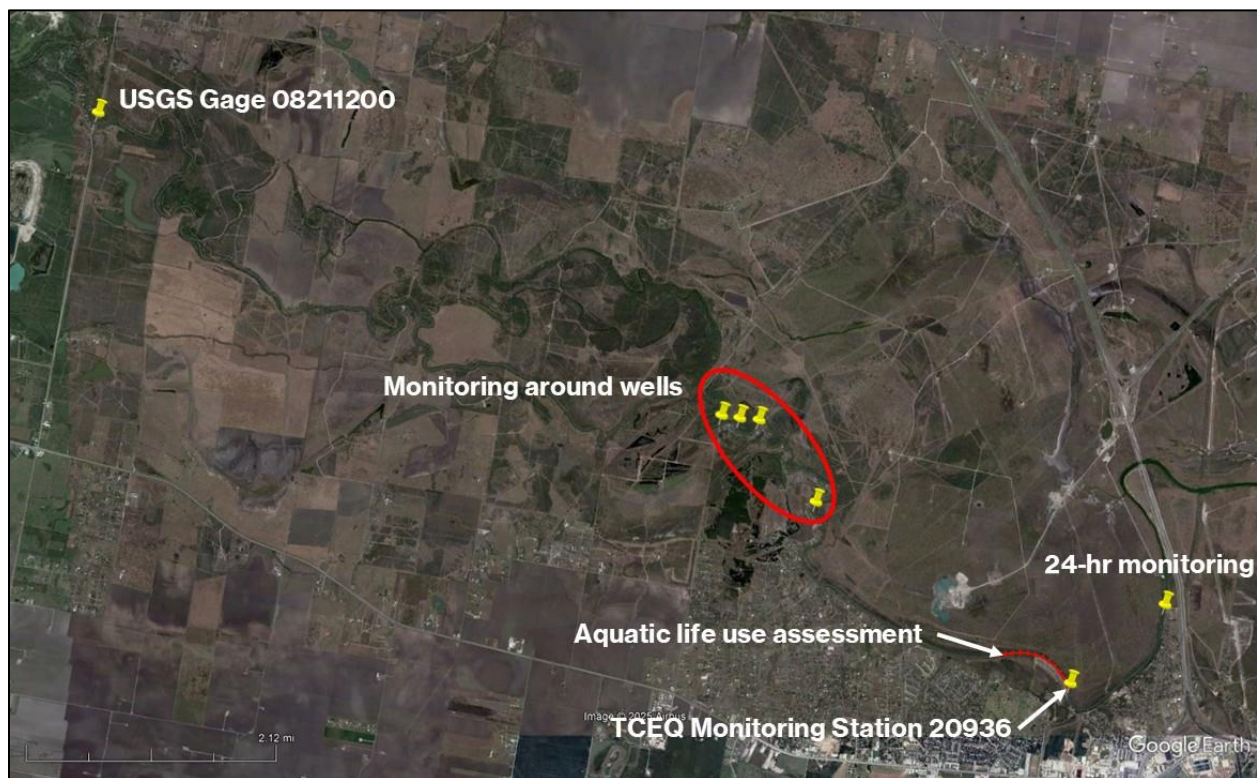
**Figure 2**  
Locations of Groundwater Wells and Their Discharges to the Nueces River  
Figure produced by the City of Corpus Christi

## 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.

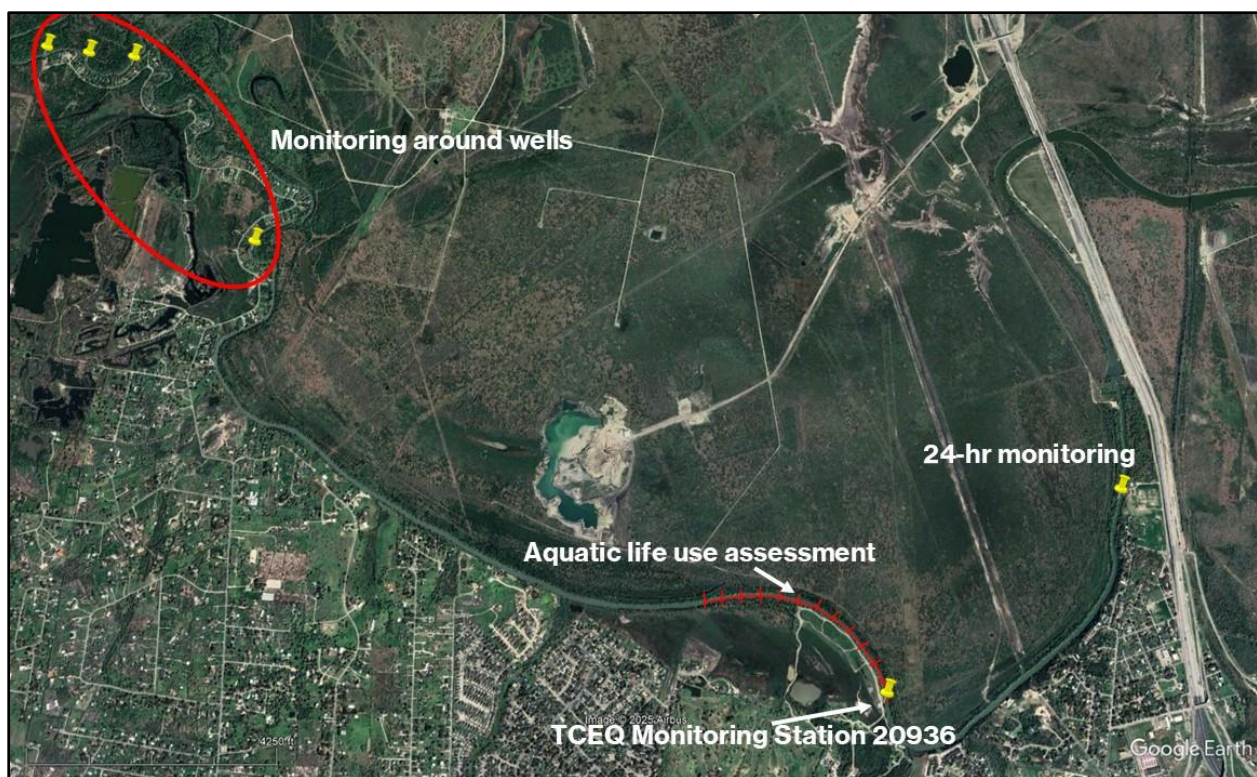
A 1,200 m long reach was selected because TCEQ ALU assessment protocols indicate that a study reach of 40 to 100 times the stream width may be appropriate for assessing ALU in rivers (TCEQ, 2014). The Nueces River below the area of well discharges is about 30 m wide and does not exhibit large variations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

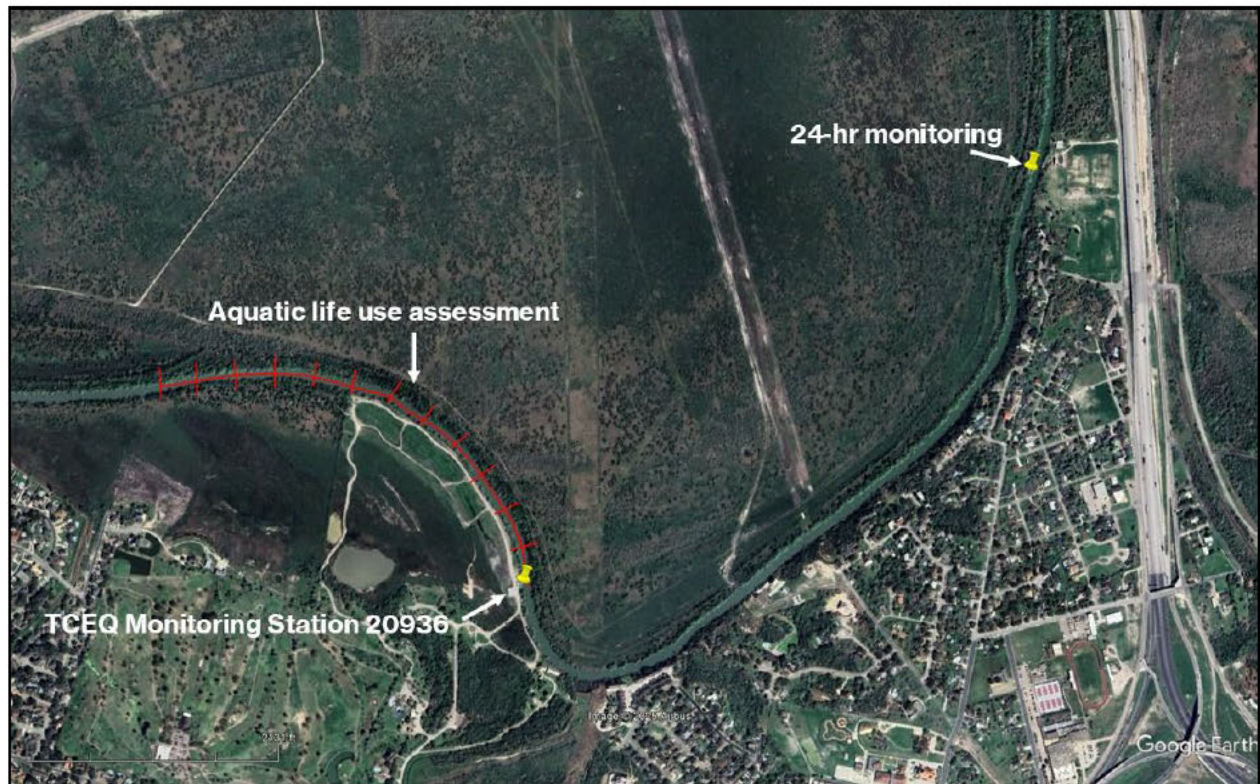
Study Area with all Monitoring Locations



**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  $\alpha$ , and pheophytin  $\alpha$  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\_W RTP 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

Brooke T. Paup, *Chairwoman*  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

May 15, 2025

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

**VIA E-MAIL**

RE: City of Corpus Christi  
W RTP 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.



City of Corpus Christi  
Application No. 14124  
May 15, 2025  
Page 2 of 2

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](mailto: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



13-MAY-25 09:27 AM

TCEQ - A/R RECEIPT REPORT BY ACCOUNT NUMBER

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

Total (Fee Code): -\$656.40

RECEIVED

MAY 13 2025

Water Availability Division

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 Administrative Information

N Additional Co-Applicant Information

N Additional Co-Applicant Signatures

Y Written Evidence of Signature Authority

Y USGS Map (or equivalent)

Y Worksheet 1.0

N Recorded Deeds for Irrigated Land

N Consent for Irrigated Land

N Worksheet 1.1

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

Y/N

Y Worksheet 3.0

N Ground Water Well Permit

N Signed Water Supply Contract

Y Worksheet 3.1

Y Worksheet 4.0

Y Worksheet 5.0

Y Accounting Plan

Y Worksheet 6.0

Y Fees

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

☒ 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](http://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](http://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:

<input type="checkbox"/> Individual	<input type="checkbox"/> Sole Proprietorship-D.B.A.
<input type="checkbox"/> Partnership	<input type="checkbox"/> Corporation
<input type="checkbox"/> Trust	<input type="checkbox"/> Estate
<input type="checkbox"/> Federal Government	<input type="checkbox"/> State Government
<input type="checkbox"/> County Government	<input checked="" type="checkbox"/> City Government
<input type="checkbox"/> Other Government	<input type="checkbox"/> 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/](http://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](http://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: [Signature]

(Use blue ink)

Date: 5/9/25

Subscribed and Sworn to before me by the said

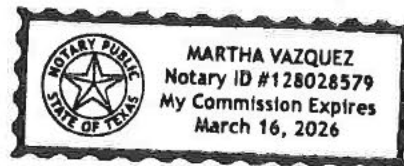
on this 9<sup>th</sup> day of May, 2025.

My commission expires on the 16<sup>th</sup> day of March, 2026.

[Signature]  
Notary Public

[SEAL]

Albaca 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) <i>(Include losses for Bed and Banks)</i>	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 <i>*requests to move state water out of basin also require completion of Worksheet 1.1 Interbasin Transfer</i>
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

- 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.
- 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
<input type="checkbox"/>	Directly from stream	
<input checked="" type="checkbox"/>	From an on-channel reservoir	Existing and authorized under CA-21-2464 (as amended)
<input type="checkbox"/>	From a stream to an on-channel reservoir	
<input type="checkbox"/>	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/gwdbprpt.asp](http://www.twdb.texas.gov/groundwater/data/gwdbprpt.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
<b>Total Fees</b>		<b>273.88</b>

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](mailto: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 Device
- 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 Device
- 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 Device
- 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 Device
- 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 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  $\mu\text{S}/\text{cm}$  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.

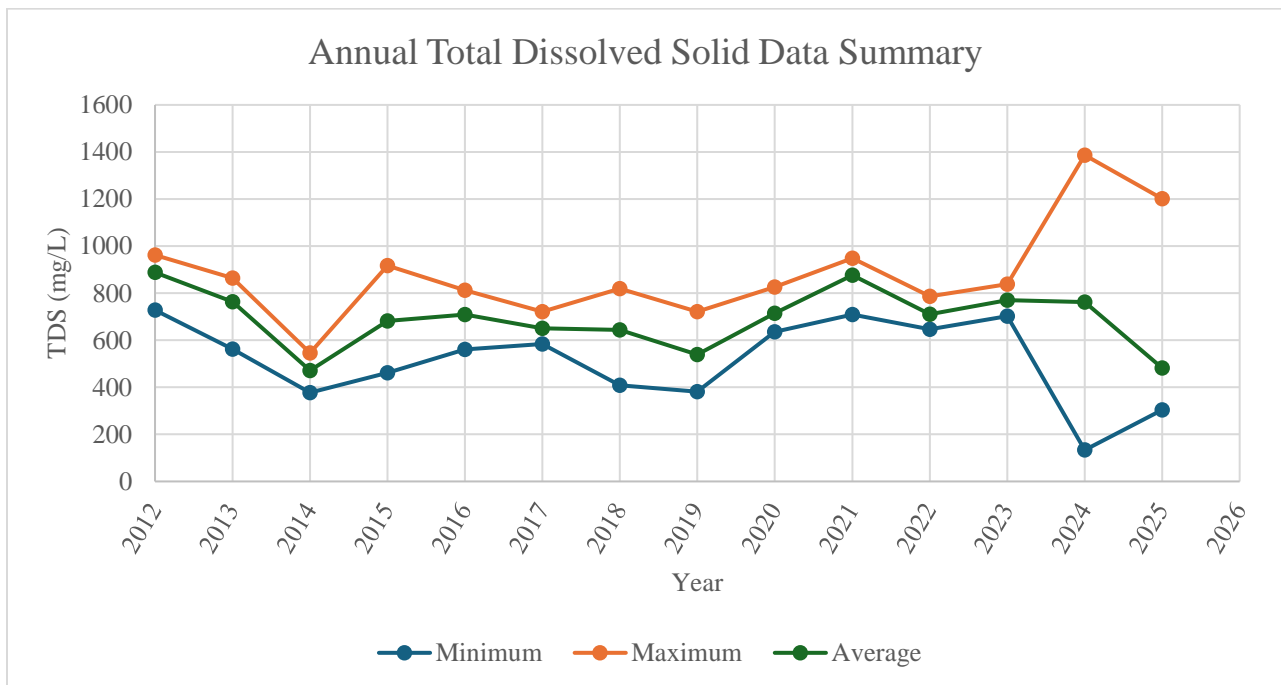


Figure 1: Minimum, Maximum, and Average TDS values from 2012 to 2025

## 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.

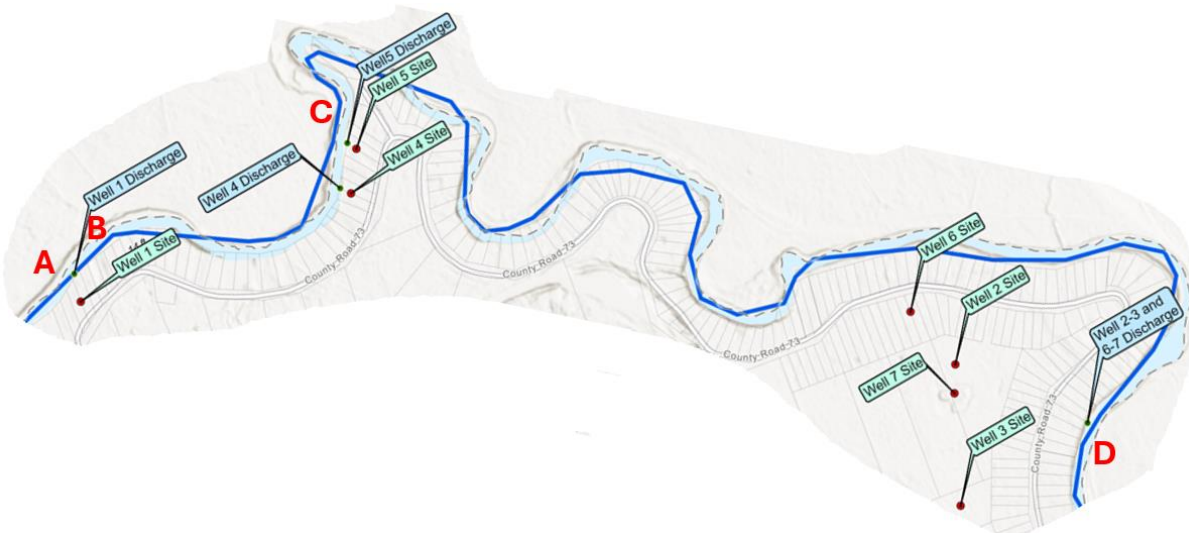


Figure 2: Multiparameter sonde locations

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 CCW's 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	<ul style="list-style-type: none"> <li>Data is reviewed on a weekly basis to ensure water quality trends are satisfactory.</li> </ul>
Action Level 1	Instruments B, C, and/or D 8-hour average TDS are >1,000 mg/L <b>AND</b> 20 – 29.9% greater than A	<p>Downstream discharge is 20 – 29.9% higher than the upstream value.</p> <ul style="list-style-type: none"> <li>Data is reviewed daily.</li> <li>If levels remain above 20% for 6 hours, staff are dispatched to site.</li> <li>Staff confirm equipment is operating properly and assess environmental conditions.</li> <li>If levels remain elevated for 48 hours, status moves to Action Level 2.</li> </ul>
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 <b>AND</b> 30-39.9% greater than A	<p>Downstream discharge is 30 – 39.9% higher than the upstream value OR downstream values have remained in Action Level 1 for 48 hours.</p> <ul style="list-style-type: none"> <li>All steps in Action Level 1 occur</li> <li>Monitoring frequency is increased to hourly.</li> <li>Wells currently pumping are reduced by 10%.</li> <li>If levels remain elevated for 48 hours, status moves to Action Level 3.</li> </ul>
Action Level 3	Instruments B, C, and/or D 8-hour average TDS or increased 4-hour TDS averages >1,000 mg/L <b>AND</b> 40% + greater than A	<p>Downstream discharge is more than 40% higher than the upstream value OR downstream values have remained in Action Level 2 for 48 hours.</p> <ul style="list-style-type: none"> <li>All steps in Action Level 1 and 2 occur.</li> <li>Wells currently pumping are reduced in increments of 10% and/or increases of water released from Wesley Seale Dam occur.</li> <li>Further adjustments are made every 8 hours in groundwater discharge and/or Lake Corpus Christi flow until TDS levels return to Action Level 2.</li> <li>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.</li> </ul>

### 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

	<b>Total Dissolved Solids (mg/L)</b>	<b>Chloride (mg/L)</b>	<b>Sulfate (mg/L)</b>	<b>Dissolved Oxygen (mg/L)</b>	<b>pH (S.U.)</b>	<b>Temperature (°C)</b>
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



<b>Client Info</b> Water Quality Corpus Christi Water 13101 Leopard St. Corpus Christi, TX 78410	<b>Report# /Lab ID#:</b> AC54518 <b>Sample Name:</b> WELL 1 <b>Date Received:</b> 03/23/2025 <b>Date Sampled:</b> 03/22/2025	<b>Report Date:</b> 3/23/25 <b>Time:</b> 14:26 <b>Time:</b> 13:34
<b>Phone:</b>	<b>EMAIL:</b>	

Parameter	Result	Unit	Flag	RL s	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:

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

Sampler (PLEASE PRINT) <u>Len Dunphy</u>					No. of Containers/ Preservative			Matrix			Residual Chlorine (if applicable)		Analyze For (If not listed below, check other and list test requested)																					
Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	Thio	None	WW Influent	WW Effluent	Water	Other-Specify	Total mg/L	Free mg/L	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	
<sup>1</sup> Well 1	AC548	3/22/25	13:34	✓						1			✓		N/A					✓			✓											✓
<sup>2</sup> Nueces River @ Well 1	AC549	3/22/25	13:41	✓						1			✓		N/A					✓			✓											✓
<sup>3</sup>																																		
<sup>4</sup>																																		
<sup>5</sup>																																		
<sup>6</sup>																																		

Relinquished By: <u>[Signature]</u>	Date: <u>3/22/25</u>	Time: <u>1426</u>	***** For Laboratory Use Only *****			
Received By: <u>[Signature]</u>	Date: <u>3/22/25</u>	Time: <u>1426</u>	Sample(s) on ice: YES <input checked="" type="radio"/> NO <input type="radio"/>	pH Strip Lot# ID: _____		
Relinquished By: _____	Date: _____	Time: _____	Receiving Temp (°C): <u>7.7</u>	pH < 2? YES <input type="radio"/> NO <input type="radio"/> Line #(s): _____		
Received By: _____	Date: _____	Time: _____	Corrected Temp (°C): <u>7.7</u>	Data Flag(s): _____		
			Temp. Device ID: <u>B</u>			

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





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

## Analytical Report



<b>Client Info</b>	Water Quality Corpus Christi Water 13101 Leopard St. Corpus Christi, TX 78410	<b>Report# /Lab ID#:</b> AC54519 <b>Sample Name:</b> NUECES RIVER @ WELL 1 <b>Date Received:</b> 03/23/2025 <b>Time:</b> 14:26 <b>Date Sampled:</b> 03/22/2025 <b>Time:</b> 13:41	<b>Report Date:</b> 3/23/25
<b>Phone:</b>	<b>EMAIL:</b>		

Parameter	Result	Unit	Flag	RL s	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:

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.
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**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

Sampler (PLEASE PRINT) <u>Len Dunphy</u>					No. of Containers/ Preservative			Matrix			Residual Chlorine (if applicable)		Analyze For (If not listed below, check other and list test requested)																					
Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	Thio	None	WW Influent	WW Effluent	Water	Other-Specify	Total mg/L	Free mg/L	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	
<sup>1</sup> Well 1	AC548	3/22/25	13:34	✓						1			✓		N/A					✓			✓											✓
<sup>2</sup> Nueces River @ Well 1	AC549	3/22/25	13:41	✓						1			✓		N/A					✓			✓											✓
<sup>3</sup>																																		
<sup>4</sup>																																		
<sup>5</sup>																																		
<sup>6</sup>																																		

Relinquished By: <u>[Signature]</u>	Date: <u>3/22/25</u>	Time: <u>1426</u>	***** For Laboratory Use Only *****			
Received By: <u>Vpaz</u>	Date: <u>3/22/25</u>	Time: <u>1426</u>	Sample(s) on ice: <u>YES</u> NO	pH Strip Lot ID: _____		
Relinquished By: _____	Date: _____	Time: _____	Receiving Temp (°C): <u>7.7</u>	pH < 2? YES NO Line #(s): _____		
Received By: _____	Date: _____	Time: _____	Corrected Temp (°C): <u>7.7</u>	Data Flag(s): _____		
			Temp. Device ID: <u>B</u>			

Special Instructions/Comments: Line 1 & 2- Sulfate	
RUSH SAMPLE ANALYSIS PER CY	
Other: Well 1: pH - <u>7.76</u> , Temp - <u>28.4</u> °C, Dissolved Oxygen - <u>3.51</u> mg/L River: pH - <u>8.07</u> , Temp - <u>26.8</u> °C, Dissolved Oxygen - <u>7.49</u> mg/L	



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

## Analytical Report



<b>Client Info</b> Water Quality Corpus Christi Water 13101 Leopard St. Corpus Christi, TX 78410	<b>Report# /Lab ID#:</b> AC56059 <b>Sample Name:</b> WELL 2 <b>Date Received:</b> 04/12/2025 <b>Date Sampled:</b> 04/12/2025	<b>Report Date:</b> 4/14/25 <b>Time:</b> 15:22 <b>Time:</b> 14:50
<b>Phone:</b>	<b>EMAIL:</b> [REDACTED]	

Parameter	Result	Unit	Flag	RL s	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	

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Respectfully Submitted,

Technical Director (or designee)

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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: \_\_\_\_\_



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



Send Email report to: [REDACTED]

Sampler (PLEASE PRINT) Len Dunphy

Sampler (PLEASE PRINT) <u>Len Dunphy</u>				No. of Containers/ Preservative				Matrix				Residual Chlorine (if applicable)		Analyze For (If not listed below, check other and list test requested)																				
Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	Thio	None	WW Influent	WW Effluent	Water	Other-Specify	Total mg/L	Free mg/L	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	
															<input type="checkbox"/>	<input type="checkbox"/>																		
<sup>1</sup> Well 2	AC50059	4/12/25	14:50	✓						1			✓		N/A					✓			✓											✓
<sup>2</sup> Nueces River @ Well 2	AC50060	4/12/25	14:30	✓						1			✓		N/A					✓			✓											✓
<sup>3</sup>																																		
<sup>4</sup>																																		
<sup>5</sup>																																		
<sup>6</sup>																																		

Relinquished By: <u>Len Dunphy</u>	Date: <u>4/12/25</u>	Time: <u>15:22</u>	**** For Laboratory Use Only ****			
Received By: <u>Corey Pennington</u>	Date: <u>4-12-25</u>	Time: <u>1522</u>	Sample(s) on ice: YES NO	pH Strip Lot ID:		
Relinquished By:	Date:	Time:	Receiving Temp (°C): <u>42</u>	pH < 2? YES NO Line #(s):		
Received By:	Date:	Time:	Corrected Temp (°C): <u>42</u>	Data Flag(s):		
			Temp. Device ID: <u>A</u>			

**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







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

## Analytical Report



<b>Client Info</b> Water Quality Corpus Christi Water 13101 Leopard St. Corpus Christi, TX 78410	<b>Report# /Lab ID#:</b> AC56060 <b>Sample Name:</b> NUECES RIVER @WELL 2 <b>Date Received:</b> 04/12/2025 <b>Date Sampled:</b> 04/12/2025	<b>Report Date:</b> 4/14/25 <b>Time:</b> 15:22 <b>Time:</b> 14:30
<b>Phone:</b>	<b>EMAIL:</b> [REDACTED]	

Parameter	Result	Unit	Flag	RL s	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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**Water Utilities Laboratory**  
 13101 Leopard St.  
 Corpus Christi, TX 78410  
 Ph: (361) 826-1200



Send Email report to: [REDACTED]

Sampler (PLEASE PRINT) Len Dunphy

Sampler (PLEASE PRINT) <u>Len Dunphy</u>				No. of Containers/ Preservative				Matrix				Residual Chlorine (if applicable)		Analyze For (If not listed below, check other and list test requested)																				
Sample ID	Lab ID# (Lab Use Only)	Date Sampled	Time Sampled	Grab	Composite	Other	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	Thio	None	WW Influent	WW Effluent	Water	Other-Specify	Total mg/L	Free mg/L	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	
															<input type="checkbox"/>	<input type="checkbox"/>																		
<sup>1</sup> Well 2	AC50059	4/12/25	14:50	✓						1			✓		N/A					✓			✓											✓
<sup>2</sup> Nueces River @ Well 2	AC50060	4/12/25	14:30	✓						1			✓		N/A					✓			✓											✓
<sup>3</sup>																																		
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Received By: <u>Corey Pennington</u>	Date: <u>4-12-25</u>	Time: <u>1522</u>	Sample(s) on ice: YES NO	pH Strip Lot ID:		
Relinquished By:	Date:	Time:	Receiving Temp (°C): <u>42</u>	pH < 2? YES NO Line # (s):		
Received By:	Date:	Time:	Corrected Temp (°C): <u>42</u>	Data Flag(s):		
			Temp. Device ID: <u>A</u>			

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

## Analytical Report



<b>Client Info</b> Water Quality Corpus Christi Water 13101 Leopard St. Corpus Christi, TX 78410	<b>Report# /Lab ID#:</b> AC57413 <b>Sample Name:</b> WELL 3 <b>Date Received:</b> 05/03/2025 <b>Date Sampled:</b> 05/03/2025	<b>Report Date:</b> 5/5/25 <b>Time:</b> 08:02 <b>Time:</b> 07:20
<b>Phone:</b>	<b>EMAIL:</b> [REDACTED]	

Parameter	Result	Unit	Flag	RL s	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	

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<sup>1</sup> Well 3	A057413	5/3/25	7:20	✓						1			✓		N/A					✓			✓											✓
<sup>2</sup> Nueces River @ Well 3	A057414	5/3/25	6:52	✓						1			✓		N/A					✓			✓											✓
<sup>3</sup> Well 3	A057415	5/3/25	7:20	✓			1						✓		N/A																			✓
<sup>4</sup> Nueces River @ Well 3	A057416	5/3/25	6:52	✓			1						✓		N/A																			✓
<sup>5</sup>																																		
<sup>6</sup>																																		

Relinquished By: <u>Len Dunphy</u>	Date: <u>5/3/25</u>	Time: <u>8:02</u>	***** For Laboratory Use Only *****			
Received By: <u>[Signature]</u>	Date: <u>5-3-25</u>	Time: <u>0802</u>	Sample(s) on ice: <u>(YES)</u> NO	pH Strip Lot ID: <u>W3046</u>		
Relinquished By:	Date:	Time:	Receiving Temp (°C): <u>8.3</u>	pH < 2? <u>(YES)</u> NO Line # (s): <u>344</u>		
Received By:	Date:	Time:	Corrected Temp (°C): <u>8.3</u>	Data Flag(s):		
			Temp. Device ID: <u>B</u>			

**Special Instructions/Comments:** Well 3: pH - 7.95 Temp - 71.5 °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



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

## Analytical Report



<b>Client Info</b>	Water Quality Corpus Christi Water 13101 Leopard St. Corpus Christi, TX 78410	<b>Report# /Lab ID#:</b> AC57414 <b>Sample Name:</b> NUECES RIVER @ WELL 3 <b>Date Received:</b> 05/03/2025 <b>Time:</b> 08:02 <b>Date Sampled:</b> 05/03/2025 <b>Time:</b> 06:52	<b>Report Date:</b> 5/5/25
<b>Phone:</b>	<b>EMAIL:</b> [REDACTED]		

Parameter	Result	Unit	Flag	RL s	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	

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Sampler (PLEASE PRINT) <u>Len Dunphy</u>				No. of Containers/ Preservative				Matrix				Residual Chlorine (if applicable)		Analyze For (If not listed below, check other and list test requested)																				
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<sup>3</sup> Well 3	A057415	5/3/25	7:20	✓			1						✓		N/A																			✓
<sup>4</sup> Nueces River @ Well 3	A057416	5/3/25	6:52	✓			1						✓		N/A																			✓
<sup>5</sup>																																		
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Relinquished By: <u>Len Dunphy</u>	Date: <u>5/3/25</u>	Time: <u>8:02</u>	***** For Laboratory Use Only *****			
Received By: <u>[Signature]</u>	Date: <u>5-3-25</u>	Time: <u>0802</u>	Sample(s) on ice: <u>YES</u> NO	pH Strip Lot ID: <u>W3046</u>		
Relinquished By:	Date:	Time:	Receiving Temp (°C): <u>8.3</u>	pH < 2? <u>YES</u> NO Line # (s): <u>344</u>		
Received By:	Date:	Time:	Corrected Temp (°C): <u>8.3</u>	Data Flag(s):		
			Temp. Device ID: <u>B</u>			

**Special Instructions/Comments:** Well 3: pH - 7.95 Temp - 7.5 °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



## 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



Distance from end of discharge

3' from Bank	Mid River	3' from Bank
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
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	
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
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
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
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	
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	
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	
3' Total Depth 1' Deep 830 mg/L 2' Deep 856 mg/L		
3' Total Depth 1' Deep 782 mg/L 2' Deep 788 mg/L		
5' Total Depth 1' Deep 788 mg/L 2' Deep 812 mg/L 4' Deep 838 mg/L		
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	
3' Total Depth 1' Deep 853 mg/L 2' Deep 868 mg/L		
3' Total Depth 1' Deep 853 mg/L 2' Deep 851 mg/L		
4' Total Depth 1' Deep 858 mg/L 2' Deep 857 mg/L		
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	
4' Total Depth 1' Deep 865 mg/L 3' Deep 864 mg/L		
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

**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

**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.**

**\*\*\*\*\***

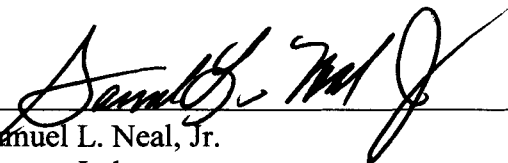
**ESTA VENTA SE REALIZA CONFORME A LOS REQUISITOS ESTATUTARIOS O JUDICIALES. LOS POSTORES LICITARAN POR LOS DERECHOS, TITULOS E INTERESES, SI FUESE EL CASO, DE LA PROPIEDAD INMUEBLE QUE SE OFRECE.**

**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, COMERCIALIZACION 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.**



9<sup>th</sup> 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

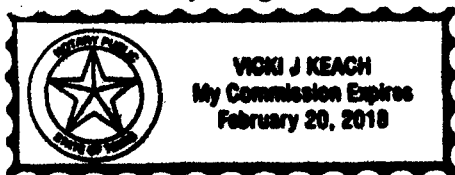
STATE OF TEXAS


X

COUNTY OF NUECES

X

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



  
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  
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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,  
Religion, Sex, Handicap, Familial Status, or  
National Origin 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





**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.**

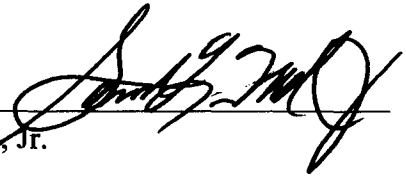
**LA PROPIEDAD SE VENDE TAL CUAL, DONDE SE ENCUENTRE Y SIN NINGUNA GARANTIA EXPRESA O IMPLICITA. NI EL CONDADO NI EL DEPARTAMENTO DEL ALGUACIL GARANTIZAN O REALIZAN ALGUNA DECLARACION RESPECTO AL TITULO, CONDICION, HABITABILIDAD, COMERCIALIZACION O APTITUD PARA UN PROPOSITO PARTICULAR. LOS COMPRADORES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

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9<sup>th</sup> 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



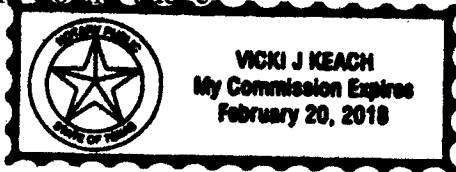
STATE OF TEXAS

X

COUNTY OF NUECES

X

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



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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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, Religion, Sex, Handicap, Familial Status, or National Origin 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



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**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 Nueces 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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**\*\*\*\*\***

**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, COMERCIALIZACION O APTITUD PARA UN PROPOSITO PARTICULAR. LOS COMPRADORES SE RESPONSABILIZAN POR TODOS LOS RIESGOS.**

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

By: \_\_\_\_\_

*Samuel L. Neal, Jr.*  
Samuel L. Neal, Jr.  
County Judge  
Nueces County

STATE OF TEXAS

X

COUNTY OF NUECES

X

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



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

After recording return to:

C 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

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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*

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**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.

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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, COMERCIALIZACION 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.**

9<sup>th</sup> 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

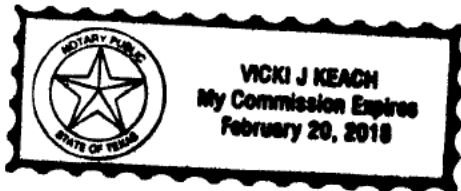
STATE OF TEXAS

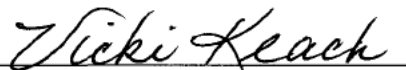
X

COUNTY OF NUECES

X

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



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

After recording return to:

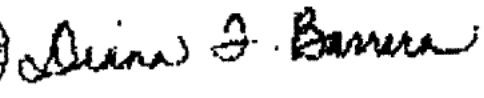
✓ Linebarger Goggan Blair & Sampson, LLP  
500 N. Shoreline, Suite 1111  
Corpus Christi, Texas 78401

Doc# 2014027356  
# Pages 3  
07/17/2014 2:11PM  
Official Records of  
NUECES COUNTY  
DIANA T. BARRERA  
COUNTY CLERK  
Fees \$23.00

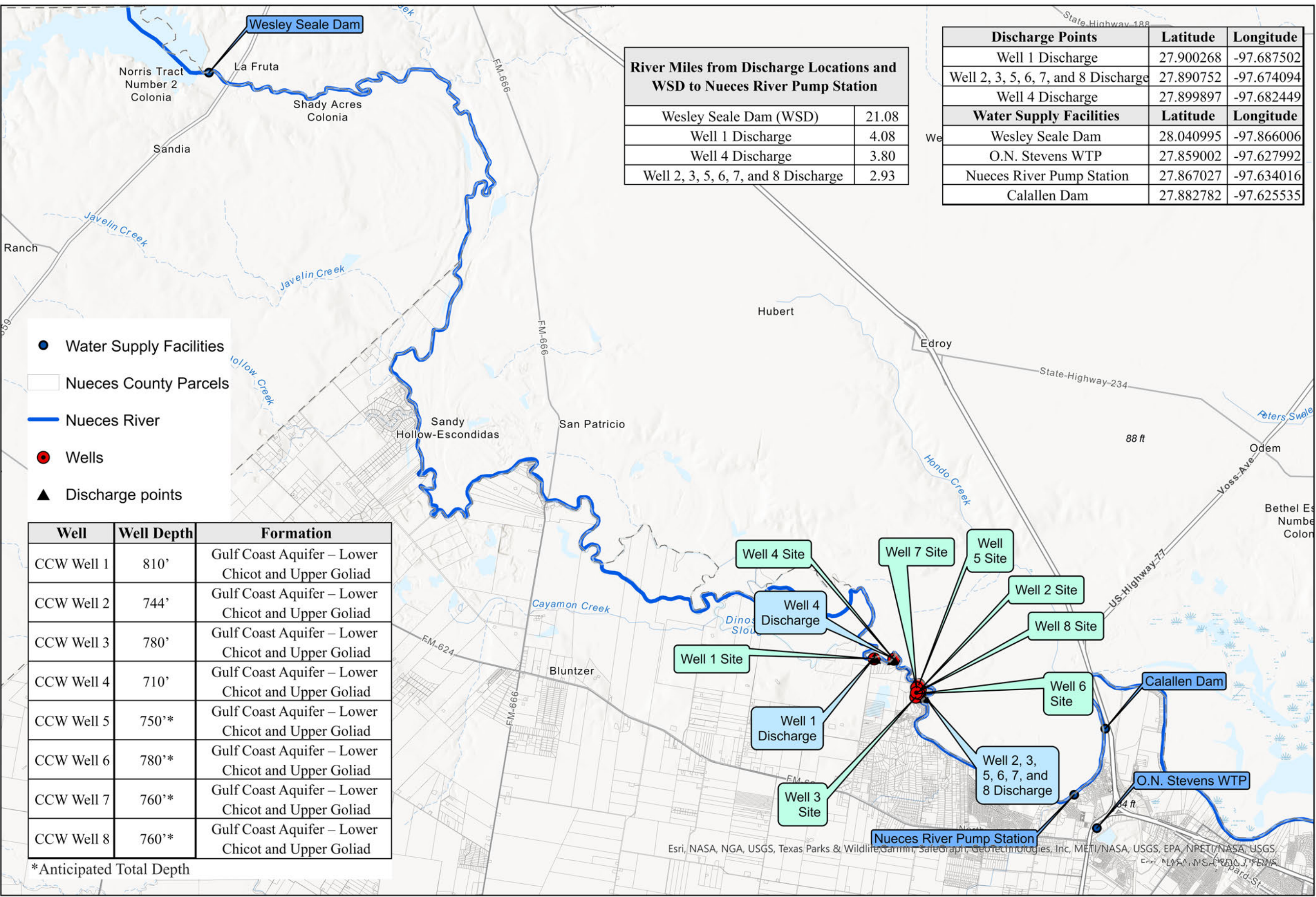
Any provision herein which restricts the Sale,  
Rental or use of the described  
REAL PROPERTY because of Race, Color,  
Religion, Sex, Handicap, Familial Status, or  
National Origin is invalid and unenforceable  
under FEDERAL LAW, 3/12/89.

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

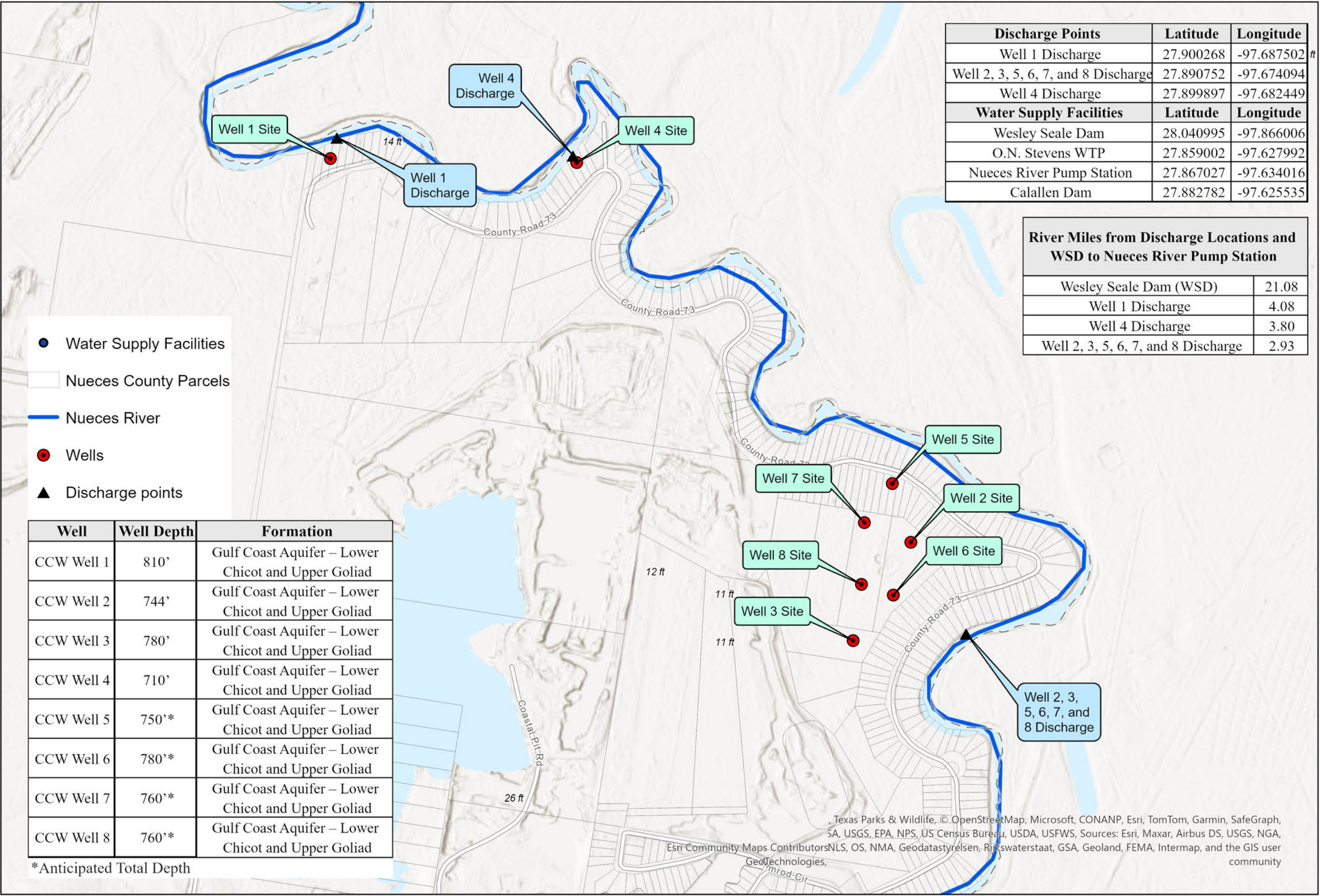
















**LEGAL DEPARTMENT**

**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

Date: March 20, 2025

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

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.

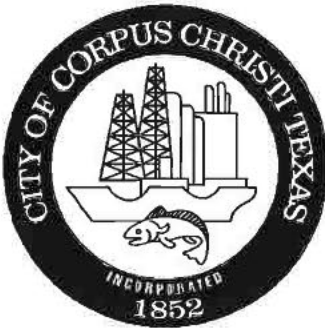
**These documents evidence that the attached City of Corpus Christi Application for a Temporary Water Rights Permit has been signed by a duly authorized official, the Chief Operations Officer on behalf of the City Manager.**

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

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

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



**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

1201 Leopard Street  
Corpus Christi, TX 78401  
ccleas.com

January 14, 2025

E-Session Item: M2025-007

File Number: 25-0001

Enactment Number: M2025-007

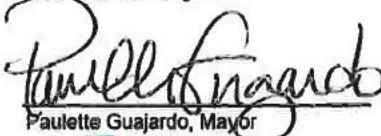
Motion to authorize the City Manager to execute contracts with landowners for the lease of sites for wells to provide water to City, with a royalty based on CPI inflated 12 cents per 1000 gallons from 1984 leases with CPI clause, with advance royalties and surface damage clauses to be negotiated on each 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:   
Rebecca Huerta, City Secretary

SCANNED





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## MEMORANDUM

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**TO:** Rebecca Huerta, City Secretary  
**FROM:** Peter Zaroni, City Manager  
**RE:** Delegation of Signature Authority  
**DATE:** February 19, 2025

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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 Zaroni  
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

<b>INNER HARBOR DESAL PROGRAM MANAGEMENT OFFICE</b>	<b>Delegated To</b>	<b>Parameters of Authority Delegated</b>
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 Competitive 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

<b>PUBLIC WORKS DOCUMENTS</b>	<b>Delegated To</b>	<b>Parameters of Authority Delegated</b>
Emergency Contracts	DD	Exempt from Competitive 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	

<b>SOLID WASTE DOCUMENTS</b>	<b>Delegated To</b>	<b>Parameters of Authority Delegated</b>
Emergency Contracts	DD	Exempt from Competitive 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	

<b>WATER &amp; WASTEWATER DOCUMENTS</b>	<b>Delegated To</b>	<b>Parameters of Authority Delegated</b>
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 competitive 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*

*Assistant Director*

*Chief Operations Officer*

*City Manager*

*City Treasurer*

*Department Director*

*Deputy City Manager*

\\ccch-f104.ccpd.net\groupsdirectory\Legal Admin Attorneys\Janet\Public Works\Signature Delegation\2025-0212 Delegation of Signature

ACM

DCM & COO have ACM signing authority

AD

COO

CM

CT

DD

DCM

Authority



# 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

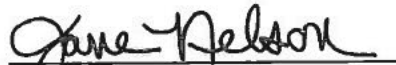
FILED IN THE OFFICE OF THE  
SECRETARY OF STATE  
3:00 PM O'CLOCK

FEB 21 2025

**Governor Greg Abbott**  
February 21, 2025

**Proclamation**  
Page 2

ATTESTED BY:



JANE NELSON  
Secretary of State

FILED IN THE OFFICE OF THE  
SECRETARY OF STATE  
3:00 PM 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 disaster drought declarations, 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 rate 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,    PRIORITY DATES: December 26, 1913,  
Duval, Jim Wells, Kenedy,    May 4, 1914, May 21, 1931,  
Kleberg, Live Oak, Nueces,    September 15, 1952 and  
San Patricio and Willacy    January 15, 1925

WATERCOURSE: Atascosa River,    BASIN: Nueces River  
Frio River and  
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 Calallen 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.

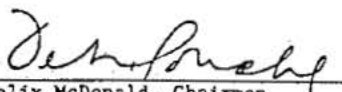
This certificate of adjudication is issued subject to all terms, conditions and provisions in the final decree of the 214th Judicial District Court of Nueces County, Texas, in Cause No. 82-3020-F, In Re: The

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.

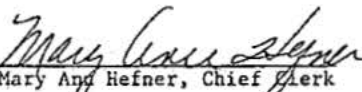
TEXAS WATER COMMISSION

  
Felix McDonald, Chairman

DATE ISSUED:

SEP 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**