FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010232002, EPA I.D. No. TX0070939, to discharge to water in the state.

Issuing Office:	Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	New Braunfels Utilities 263 Main Plaza, New Braunfels, Texas 78130
Prepared By:	Paula Palmar Domestic Permits Team Domestic Wastewater Section (MC 148) Water Quality Division (512) 239-4561
Date:	March xx, 2026
Permit Action:	Renewal with changes

1. EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit includes an expiration date of **five years from the date of issuance**.

2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of the existing permit that authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 2.5 million gallons per day (MGD) in the Interim phase, and an annual average flow not to exceed 4.9 MGD in the Final phase. The existing wastewater treatment facility serves the City of New Braunfels and the surrounding areas within the Guadalupe River drainage basin on the north side of the City of New Braunfels.

3. FACILITY AND DISCHARGE LOCATION

The plant site is located at 1322 Loop 337, in the City of New Braunfels, Comal County, Texas 78130.

Outfall Location:

Outfall Number	Latitude	Longitude
001	29.727390 N	98.112059 W

The treated effluent is discharged directly to the Guadalupe River Below Canyon Dam in Segment No. 1812 of the Guadalupe River Basin. The designated uses for Segment No.

1812 are primary contact recreation, public water supply, aquifer protection, and exceptional aquatic life use.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The Gruene Road Water Reclamation Facility is an activated sludge process plant operating as an enhanced biological phosphorus removal anaerobic-oxic (A-O) process with an anoxic selector. Treatment units in the Interim phase include two treatment trains: Each treatment train consists of an aerated basin, a rapid mix basin, an anaerobic basin, an anoxic basin, an aeration basin, two secondary clarifier and authomatic backwashing, two aerobic digesters, a belt filter press, and eight Ultraviolet Light (UV) disinfection basins. Treatment units in the Final phase will include a raw water lift station, two bar screens, an aerated grit basin, a flow splitting structure, two RAS mixing boxes, four anoxic basins, four anerobic basins with alum feed for added phosporous reduction, four aeration basins, four final clarifiers, three tertiary filter basins, twelve UV disinfection basins, four aerobic sludge digesters, and a belt filter press. The facility is operating in the Interim phase.

Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Mesquite Creek Landfill, MSW Permit No. 66C, in Comal County. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

5. INDUSTRIAL WASTE CONTRIBUTION

The draft permit includes pretreatment requirements that are appropriate for a facility of this size and complexity. The facility does not appear to receive significant industrial wastewater contributions.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

The following is a summary of the applicant's effluent monitoring data for the period April 2023 through April 2025**.** The average of Daily Average value is computed by the averaging of all 30-day average values for the reporting period for each parameter: flow, five-day carbonaceous biochemical oxygen demand ($CBOD_5$), five-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and total phosphorus (TP). The average of Daily Average value for *Escherichia coli* (*E.coli*) in colony-forming units (CFU) or most probable number (MPN) per 100 ml is calculated via geometric mean.

Parameter	Average of Daily Avg
Flow, MGD	1.21
$CBOD_5$, mg/l	1.5
TSS, mg/l	0.61
NH_3-N, mg/l	0.01
TP, mg/l	0.39
E. coli, CFU or MPN per 100 ml	2.0

7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

The effluent limitations and monitoring requirements for those parameters that are limited in the draft permit are as follows:

A. INTERIM PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The daily annual average flow of effluent shall not exceed 2.5 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 6,944 gallons per minute (gpm).

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	10	208	15	25
TSS	15	313	25	40
NH_3-N	3	63	6	10
TP	1.0	21	2	4
DO (minimum)	4.0	N/A	N/A	N/A
E. coli, CFU or MPN per 100 ml	126	N/A	N/A	399

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The permittee shall utilize an UV system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Two/week
TSS	Two/week
NH_3-N	Two/week
TP	Two/week
DO	Two/week
E. coli	Daily

B. FINAL PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 4.9 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 13,611 gpm.

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	10	409	15	25
TSS	15	613	25	40
NH_3-N	3	123	6	10
TP	0.5	20	1	2
DO (minimum)	4.0	N/A	N/A	N/A
E. coli, CFU or MPN/100 ml	126	N/A	N/A	399

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The permittee shall utilize an UV system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Two/week
TSS	Two/week
NH_3-N	Two/week
TP	Two/week
DO	Two/week
E. coli	Daily

C. SEWAGE SLUDGE REQUIREMENTS

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Mesquite Creek Landfill, MSW Permit No. 66C, in Comal County. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

D. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 305 which references 40 CFR Part 403, General Pretreatment Regulations for Existing and New Sources of Pollution [rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798]. The permit includes specific requirements that establish responsibilities of local government, industry, and the public to implement the standards to control pollutants which pass through or interfere with treatment processes in publicly owned treatment works or which may contaminate the sewage sludge. This permit has appropriate pretreatment language for a facility of this size and complexity.

The permittee has a pretreatment program which was approved by the U.S. Environmental Protection Agency (EPA) on December 4, 1992, and modified on September 30, 1993, August 19, 2011, and October 17, 2022 (Streamlining Rule and TBLLs). The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which during the preceding twelve months were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of December in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

Effective December 21, 2028, the permittee must submit the pretreatment program annual status report electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. [rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].

The permittee is under a continuing duty to: establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, to develop and enforce local limits as necessary, and to modify the approved POTW pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee is required to effectively enforce such limits and to modify their pretreatment program, including the Legal Authority, Enforcement Response Plan, and/or Standard Operating Procedures, if required by the Executive Director to reflect changing conditions at the POTW.

E. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

(1) The draft permit includes chronic freshwater biomonitoring requirements as follows. The permit requires five dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 4%, 6%, 8%, 10%, and 13%. The low-flow effluent concentration (critical dilution) is defined as 10% effluent. The critical dilution is in accordance with the "Aquatic Life Criteria" section of the "Water Quality Based Effluent Limitations/Conditions" section.

(a) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing is once per *quarter* for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.

(b) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*). The frequency of the testing is once per *quarter* for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.

(2) The draft permit includes the following minimum 24-hour acute freshwater biomonitoring requirements at a frequency of once per six months:

(a) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*).

(b) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*).

F. SUMMARY OF CHANGES FROM APPLICATION

None.

G. SUMMARY OF CHANGES FROM EXISTING PERMIT

The Interim I phase in the existing permit was deleted since it is no longer applicable.

The Standard Permit Conditions, Sludge Provisions, Other Requirements, and Biomonitoring sections of the draft permit have been updated. Pretreatment requirements have been added to the draft permit.

The existing permit authorizes an annual average flow of 1.21 MGD in the Interim I phase, 2.5 MGD in the Interim II phase and 4.9 MGD in the Final phase. The permittee is currently operating in the new Interim phase.

For Publicly Owned Treatment Works (POTWs), permitted facilities should continue reporting unauthorized discharges, sanitary sewer overflows, and bypasses using the Noncompliance Notification form (TCEQ-00501) until the online electronic reporting system is available through the TCEQ website.

The draft permit includes all updates based on the 30 TAC § 312 rule change effective April 23, 2020.

8. DRAFT PERMIT RATIONALE

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated in Title 40 of the CFR require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines.

Effluent limitations for maximum and minimum pH are in accordance with 40 CFR § 133.102(c) and 30 TAC § 309.1(b).

A mixing zone evaluation for pH is included within Attachment A of this Fact Sheet. The evaluation has demonstrated that the technology based pH limitations of 6.0 to 9.0 standard units will ensure compliance with the TSWQS pH criterion at the edge of the chronic mixing zone. (Attachment A)

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged directly to the Guadalupe River Below Canyon Dam in Segment No. 1812 of the Guadalupe River Basin. The designated uses for Segment No. 1812 are primary contact recreation, public water supply, aquifer protection, and exceptional aquatic life use. The effluent limitations in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and/or revisions.

A priority watershed of critical concern has been identified in Segment 1812 in Comal County. Therefore, the Peck's cave amphipod (Stygobromus pecki) has been determined to occur in the watershed of Segment 1812. To make this determination for Texas Pollutant Discharge Elimination System (TPDES) permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the TPDES (September 14, 1998, October 21, 1998, update). The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The presence of the endangered Peck's cave amphipod requires EPA review and, if appropriate, consultation with USFWS.

Segment No. 1812 is not currently listed on the state's inventory of impaired and threatened waters (the 2024 CWA § 303(d) list).

The pollutant analysis of treated effluent provided by the permittee in the application indicated 1570 mg/l total dissolved solids (TDS), 76 mg/l sulfate, and 259 mg/l chloride present in the effluent. The segment criteria for Segment No. 1812 are 400 mg/l for TDS, 50 mg/l for sulfate, and 50 mg/l for chlorides. Based on dissolved solids screening, no additional limits or monitoring requirements are needed for total dissolved solids, chloride, or sulfate. See Attachment B of this Fact Sheet.

The effluent limitations and conditions in the draft permit comply with EPA-approved portions of the 2018 Texas Surface Water Quality Standards (TSWQS), 30 TAC §§ 307.1 - 307.10, effective March 1, 2018; 2014 TSWQS, effective March 6, 2014; 2010 TSWQS, effective July 22, 2010; and 2000 TSWQS, effective July 26, 2000.

(2) CONVENTIONAL PARAMETERS

Effluent limitations for the conventional effluent parameters (i.e., Five-Day Biochemical Oxygen Demand or Five-Day Carbonaceous Biochemical Oxygen Demand, Ammonia Nitrogen, etc.) are based on stream standards and waste load allocations for water quality-limited streams as established in the TSWQS and the State of Texas Water Quality Management Plan (WQMP).

The effluent limitations in the draft permit have been reviewed for consistency with the WQMP. The existing effluent limitations are consistent with the approved WQMP.

The effluent limitations in the draft permit meet the requirements for secondary treatment and the requirements for disinfection according to 30 TAC Chapter 309, Subchapter A: Effluent Limitations.

(3) COASTAL MANAGEMENT PLAN

The facility is not located in the Coastal Management Program boundary.

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

The Texas Surface Water Quality Standards (30 TAC Chapter 307) state that surface waters will not be toxic to man, or to terrestrial or aquatic life. The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

Water quality-based effluent limitations are calculated from freshwater aquatic life criteria found in Table 1 of the Texas Surface Water Quality Standards (30 TAC Chapter 307).

Acute freshwater criteria are applied at the edge of the zone of initial dilution (ZID), and chronic freshwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 20 feet upstream and 60 feet downstream from the point where the discharge enters the Guadalupe River Below Canyon Dam. The aquatic life mixing zone for this discharge is defined as 100 feet upstream and 300 feet downstream from the point where the discharge enters the Guadalupe River Below Canyon Dam.

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the permitted flow of 4.9 MGD and the 7-day, 2-year (7Q2) flow of 67.8 cubic feet per second (cfs) for the Guadalupe River Below Canyon Dam. The estimated dilution at the edge of the ZID is calculated using the

permitted flow of 4.9 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %: 30.90% Chronic Effluent %: 10.06%

Waste load allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long-term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12). Assumptions used in deriving the effluent limitations include segment values for hardness, chlorides, pH, and total suspended solids (TSS) according to the segment-specific values contained in the TCEQ guidance document "Procedures to Implement the Texas Surface Water Quality Standards." The segment values are 188 mg/l for hardness (as calcium carbonate), 15 mg/l chlorides, 7.8 standard units for pH, and 2.5 mg/l for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85% of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70% of the calculated daily average water quality-based effluent limitation. See Attachment C of this Fact Sheet.

(b) PERMIT ACTION

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data does not exceed 70% of the calculated daily average water quality-based effluent limitations for aquatic life protection.

(3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

(a) SCREENING

Water quality-based effluent limitations for the protection of human

health are calculated using criteria for the consumption of freshwater fish tissue (and drinking water) found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation (and drinking water) criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the permitted flow of 4.9 MGD and the harmonic mean flow of 130.6 cfs for the Guadalupe River Below Canyon Dam. The following critical effluent percentage is being used:

Human Health Effluent %: 5.49%

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent limitations for aquatic life protection. A 99th percentile confidence level in the long-term average calculation is used with only one long-term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70% and 85% of the calculated daily average water quality-based effluent limitation. See Attachment C of this Fact Sheet.

(b) PERMIT ACTION

Reported analytical data does not exceed 70% of the calculated daily average water quality-based effluent limitation for human health protection.

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 1812, which receives the discharge from this facility, is designated as a public water supply. The screening procedure used to calculate water quality-based effluent limitations and determine the need for effluent limitations or monitoring requirements is identical to the procedure outlined in the aquatic organism bioaccumulation section of this fact sheet. Criteria used in the calculation of water quality-based effluent limitations for the protection of a drinking water supply are outlined in Table 2 (Water and Fish) of the Texas Surface Water Quality Standards (30 TAC Chapter 307). These criteria are developed from either drinking water maximum contaminant level (MCL) criteria outlined in 30 TAC Chapter 290 or from the combined human health effects of exposure to consumption of fish tissue and ingestion of drinking water.

(b) PERMIT ACTION

Criteria in the "Water and Fish" section of Table 2 do not distinguish if the criteria is based on a drinking water standard or the combined effects of ingestion of drinking water and fish tissue. Effluent limitations or monitoring requirements to protect the drinking water supply (and other human health effects) were previously calculated and outlined in the aquatic organism bioaccumulation criteria section of this fact sheet.

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

TCEQ has determined that there may be pollutants present in the effluent that may have the potential to cause toxic conditions in the receiving stream. Whole effluent biomonitoring is the most direct measure of potential toxicity that incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity.

The existing permit includes chronic freshwater biomonitoring requirements. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee has performed eight chronic tests, with zero demonstrations of significant toxicity (i.e., zero failures).

A reasonable potential (RP) determination was performed in accordance with 40 CFR §122.44(d)(1)(ii) to determine whether the discharge will reasonably be expected to cause or contribute to an exceedance of a state water quality standard or criterion within that standard. Each test species is evaluated separately. The RP determination is based on representative data from the previous three years of WET testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to the EPA dated December 28, 2015, and approved by the EPA in a letter dated December 28, 2015.

With zero failures, a determination of no RP was made, and WET limits are not required. Both test species are eligible for the testing frequency reduction after one year of testing.

(b) PERMIT ACTION

The test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge. This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water

body.

(6) WHOLE EFFLUENT TOXICITY CRITERIA (24-HOUR ACUTE)

(a) SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring language. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee has performed eight chronic tests, with zero demonstrations of significant toxicity (i.e., zero failures).

(b) PERMIT ACTION

The draft permit includes 24-hour 100% acute biomonitoring tests for the life of the permit.

9. WATER QUALITY VARIANCE REQUESTS

No variance requests have been received.

10. PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a

contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.
If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Paula Palmar at (512) 239-4561.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

A. PERMIT(S)

TPDES Permit No. WQ0010232002 issued on October 22, 2020.

B. APPLICATION

Application received on April 23, 2025, and additional information received on March 12, 2026.

C. MEMORANDA

Interoffice Memoranda from the Water Quality Assessment Section of the TCEQ Water Quality Division. Interoffice Memorandum from the Pretreatment Team of the TCEQ Water Quality Division.

D. MISCELLANEOUS

Federal Clean Water Act § 402; Texas Water Code § 26.027; 30 TAC Chapters 30, 305, 309, 312, and 319; Commission policies; and U.S. Environmental Protection Agency guidelines.

Texas Surface Water Quality Standards, 30 TAC §§ 307.1 - 307.10.

Procedures to Implement the Texas Surface Water Quality Standards (IP), Texas Commission on Environmental Quality, June 2010, as approved by the U.S. Environmental Protection Agency, and the IP, January 2003, for portions of the 2010 IP not approved by the U.S. Environmental Protection Agency.

Texas 2024 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, June 26, 2024; approved by the U.S. Environmental Protection Agency on November 13, 2024.

Texas Natural Resource Conservation Commission, Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, Document No. 98-001.000-OWR-WQ, May 1998.

Attachment A: pH Screening

Calculation of pH of a mixture of two flows. Based on the procedure in EPA's DESCON program (EPA, 1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington D.C.)

INPUT	Lower pH limit	Higher pH limit
1. DILUTION FACTOR AT MIXING ZONE BOUNDARY	14.456	14.456
RECEIVING WATER CHARACTERISTICS		
2. Temperature (deg C):	20.00	20.00
3. pH:	7.7	7.7
4. Alkalinity (mg CaCO3/L):	184.00	184.00
EFFLUENT CHARACTERISTICS		
5. Temperature (deg C):	20.00	20.00
6. pH:	6.00	9.00
7. Alkalinity (mg CaCO3/L):*	20.00	134.00

OUTPUT		
1. IONIZATION CONSTANTS		
Upstream/Background pKa:	6.38	6.38
Effluent pKa:	6.38	6.38
2. IONIZATION FRACTIONS		
Upstream/Background Ionization Fraction:	0.95	0.95
Effluent Ionization Fraction:	0.29	1.00
3. TOTAL INORGANIC CARBON		
Upstream/Background Total Inorganic Carbon (mg CaCO3/L):	192.85	192.85

Effluent Total Inorganic Carbon (mg CaCO3/L):	68.20	134.32
4. CONDITIONS AT MIXING ZONE BOUNDARY		
Temperature (deg C):	20.00	20.00
Alkalinity (mg CaCO3/L):	172.66	180.54
Total Inorganic Carbon (mg CaCO3/L):	184.22	188.80
pKa:	6.38	6.38
pH at Mixing Zone Boundary:	**7.56**	**7.72**

Attachment B: Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Menu 3 - Discharge to a Perennial Stream or River

Applicant Name:	**New Braunfels Utilities -Gruene Road Water Rec Facility**
Permit Number, Outfall:	**10232-002, Outfall 001**
Segment Number:	**1812**

Enter values needed for screening:			**Data Source (edit if different)**
QE - Average effluent flow	**4.9**	MGD	
QS - Perennial stream harmonic mean flow	**162.00**	cfs	Critical conditions memo
QE - Average effluent flow	**7.5814**	cfs	Calculated
CA - TDS - ambient segment concentration	**248**	mg/L	2010 IP, Appendix D
CA - chloride - ambient segment concentration	**14**	mg/L	2010 IP, Appendix D
CA - sulfate - ambient segment concentration	**19**	mg/L	2010 IP, Appendix D
CC - TDS - segment criterion	**400**	mg/L	2014 TSWQS, Appendix A
CC - chloride - segment criterion	**50**	mg/L	2014 TSWQS, Appendix A
CC - sulfate - segment criterion	**50**	mg/L	2014 TSWQS, Appendix A
CE - TDS - average effluent concentration	**1570**	mg/L	Permit application
CE - chloride - average effluent concentration	**259**	mg/L	Permit application
CE - sulfate - average effluent concentration	**76**	mg/L	Permit application

Screening Equation

$$CC \geq [(QS)(CA) + (QE)(CE)]/[QE + QS]$$

No further screening for TDS needed if:	**307.10**	**≤**	**400**
No further screening for chloride needed if:	**24.95**	**≤**	**50**
No further screening for sulfate needed if:	**21.55**	**≤**	**50**

Permit Limit Calculations

TDS

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE			3647.94	
Calculate the LTA	LTA = WLA * 0.93			3392.58	
Calculate the daily average	Daily Avg. = LTA * 1.47			**4987.10**	
				10550.9	
Calculate the daily maximum	Daily Max. = LTA * 3.11			**3**	
Calculate 70% of the daily average	70% of Daily Avg. =			3490.97	
Calculate 85% of the daily average	85% of Daily Avg. =			4239.03	
No permit limitations needed if:	**1570**	**≤**	**3490.97**		
Reporting needed if:	**1570**	**>**	**3490.97**	**but ≤**	**4239.03**
Permit limits may be needed if:	**1570**	**>**	**4239.03**		

No permit limitations needed for TDS

Chloride

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE			819.25	
Calculate the LTA	LTA = WLA * 0.93			761.90	
Calculate the daily average	Daily Avg. = LTA * 1.47			**1119.99**	
Calculate the daily maximum	Daily Max. = LTA * 3.11			**2369.51**	
Calculate 70% of the daily average	70% of Daily Avg. =			784.00	
Calculate 85% of the daily average	85% of Daily Avg. =			952.00	
No permit limitations needed if:	**259**	**≤**	**784.00**		
Reporting needed if:	**259**	**>**	**784.00**	**but ≤**	**952.00**
Permit limits may be needed if:	**259**	**>**	**952.00**		

No permit limitations needed for chloride

Sulfate

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE			712.41	
Calculate the LTA	LTA = WLA * 0.93			662.54	
Calculate the daily average	Daily Avg. = LTA * 1.47			**973.93**	
Calculate the daily maximum	Daily Max. = LTA * 3.11			**2060.50**	
Calculate 70% of the daily average	70% of Daily Avg. =			681.75	
Calculate 85% of the daily average	85% of Daily Avg. =			827.84	

No permit limitations needed if:	**76**	**≤**	**681.75**		
Reporting needed if:	**76**	**>**	**681.75**	**but ≤**	**827.84**
Permit limits may be needed if:	**76**	**>**	**827.84**		

No permit limitations needed for sulfate

Attachment C: Calculated Water Quality Based Effluent Limitations

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER

The water quality-based effluent limitations developed below are calculated using:

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life
Table 2, 2018 Texas Surface Water Quality Standards for Human Health
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	New Braunfels Utilities
TPDES Permit No.:	WQ0010232002
Outfall No.:	001
Prepared by:	Paula Palmar
Date:	March 9, 2026

DISCHARGE INFORMATION

Receiving Waterbody:	directly to the Guadalupe River Below Canyon Dam
Segment No.:	1812
TSS (mg/L):	2.5
pH (Standard Units):	7.8
Hardness (mg/L as $CaCO_3$):	188
Chloride (mg/L):	15
Effluent Flow for Aquatic Life (MGD):	4.9
Critical Low Flow [7Q2] (cfs):	67.8
% Effluent for Chronic Aquatic Life (Mixing Zone):	10.06
% Effluent for Acute Aquatic Life (ZID):	30.90
Effluent Flow for Human Health (MGD):	4.9
Harmonic Mean Flow (cfs):	130.6
% Effluent for Human Health:	5.49
Human Health Criterion (select: PWS, FISH, or INC)	**FISH**

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio (WER)*	*Source*
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	245190.59	0.620		1.00	Assumed
Cadmium	6.60	-1.13	1413604.08	0.221		1.00	Assumed
Chromium (total)	6.52	-0.93	1412263.69	0.221		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	1412263.69	0.221		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	531525.85	0.429		1.00	Assumed
Lead	6.45	-0.80	1354091.44	0.228		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed

Nickel	5.69	-0.57	290518.7 7	0.579		1.00	Assume d
Selenium	N/A	N/A	N/A	1.00	Assume d	1.00	Assume d
Silver	6.38	-1.03	933516.0 5	0.300		1.00	Assume d
Zinc	6.10	-0.70	662890.8 0	0.376		1.00	Assume d

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*FW Chronic Criterion (µg/L)*	*WLAa (µg/L)*	*WLAc (µg/L)*	*LTAa (µg/L)*	*LTAc (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Aldrin	3.0	N/A	9.71	N/A	5.56	N/A	8.17	17.2
Aluminum	991	N/A	3207	N/A	1837	N/A	2700	5714
Arsenic	340	150	1775	2406	1017	1852	1494	3162
Cadmium	15.8	0.381	233	17.2	133	13.2	19.4	41.1
Carbaryl	2.0	N/A	6.47	N/A	3.71	N/A	5.45	11.5
Chlordane	2.4	0.004	7.77	0.0398	4.45	0.0306	0.0450	0.095 2
Chlorpyrifos	0.083	0.041	0.269	0.408	0.154	0.314	0.226	0.478
Chromium (trivalent)	955	124	14008	5599	8026	4311	6337	13408
Chromium (hexavalent)	15.7	10.6	50.8	105	29.1	81.2	42.7	90.5
Copper	25.7	16.2	194	376	111	290	163	345
Cyanide (free)	45.8	10.7	148	106	84.9	81.9	120	254
4,4'-DDT	1.1	0.001	3.56	0.00994	2.04	0.00766	0.0112	0.023 8
Demeton	N/A	0.1	N/A	0.994	N/A	0.766	1.12	2.38
Diazinon	0.17	0.17	0.550	1.69	0.315	1.30	0.463	0.980
Dicofol [Kelthane]	59.3	19.8	192	197	110	152	161	341
Dieldrin	0.24	0.002	0.777	0.0199	0.445	0.0153	0.0225	0.047 6
Diuron	210	70	680	696	389	536	572	1210
Endosulfan I (*alpha*)	0.22	0.056	0.712	0.557	0.408	0.429	0.599	1.26
Endosulfan II (*beta*)	0.22	0.056	0.712	0.557	0.408	0.429	0.599	1.26
Endosulfan sulfate	0.22	0.056	0.712	0.557	0.408	0.429	0.599	1.26
Endrin	0.086	0.002	0.278	0.0199	0.159	0.0153	0.0225	0.047 6
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0994	N/A	0.0766	0.112	0.238
Heptachlor	0.52	0.004	1.68	0.0398	0.964	0.0306	0.0450	0.095 2
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	0.08	3.64	0.795	2.09	0.612	0.900	1.90
Lead	127	4.97	1809	217	1036	167	245	518
Malathion	N/A	0.01	N/A	0.0994	N/A	0.0766	0.112	0.238
Mercury	2.4	1.3	7.77	12.9	4.45	9.95	6.54	13.8
Methoxychlor	N/A	0.03	N/A	0.298	N/A	0.230	0.337	0.714
Mirex	N/A	0.001	N/A	0.00994	N/A	0.00766	0.0112	0.023 8
Nickel	799	88.7	4462	1523	2557	1173	1723	3646
Nonylphenol	28	6.6	90.6	65.6	51.9	50.5	74.2	157
Parathion (ethyl)	0.065	0.013	0.210	0.129	0.121	0.0995	0.146	0.309
Pentachlorophenol	19.5	15.0	63.1	149	36.1	114	53.1	112
Phenanthrene	30	30	97.1	298	55.6	230	81.7	172
Polychlorinated Biphenyls [PCBs]	2.0	0.014	6.47	0.139	3.71	0.107	0.157	0.333
Selenium	20	5	64.7	49.7	37.1	38.3	54.5	115
Silver	0.8	N/A	15.9	N/A	9.10	N/A	13.3	28.2

Toxaphene	0.78	0.0002	2.52	0.00199	1.45	0.00153	0.00225	0.00476
Tributyltin [TBT]	0.13	0.024	0.421	0.239	0.241	0.184	0.270	0.571
2,4,5 Trichlorophenol	136	64	440	636	252	490	370	784
Zinc	200	202	1720	5329	986	4103	1448	3065

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Water and Fish Criterion (µg/L)*	*Fish Only Criterion (µg/L)*	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1.0	115	1150	2096	1949	2865	6062
Aldrin	1.146E-05	1.147E-05	1.147E-04	0.000209	0.000194	0.000285	0.000604
Anthracene	1109	1317	13170	24004	22324	32816	69427
Antimony	6	1071	10710	19520	18154	26686	56459
Arsenic	10	N/A	N/A	N/A	N/A	N/A	N/A
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	5	581	5810	10590	9848	14476	30628
Benzidine	0.0015	0.107	1.07	1.95	1.81	2.66	5.64
Benzo(*a*)anthracene	0.024	0.025	0.25	0.456	0.424	0.622	1.31
Benzo(*a*)pyrene	0.0025	0.0025	0.025	0.0456	0.0424	0.0622	0.131
Bis(chloromethyl)ether	0.0024	0.2745	2.745	5.00	4.65	6.83	14.4
Bis(2-chloroethyl)ether	0.60	42.83	428.3	781	726	1067	2257
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	138	128	188	398
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	5012	4661	6852	14496
Bromoform [Tribromomethane]	66.9	1060	10600	19320	17968	26412	55879
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	4.5	46	460	838	780	1146	2424
Chlordane	0.0025	0.0025	0.025	0.0456	0.0424	0.0622	0.131
Chlorobenzene	100	2737	27370	49886	46394	68198	144284
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	3335	3102	4559	9647
Chloroform [Trichloromethane]	70	7697	76970	140289	130468	191788	405756
Chromium (hexavalent)	62	502	5020	9150	8509	12508	26463
Chrysene	2.45	2.52	25.2	45.9	42.7	62.7	132
Cresols [Methylphenols]	1041	9301	93010	169524	157657	231755	490313
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.0365	0.0339	0.0498	0.105
4,4'-DDE	0.00013	0.00013	0.0013	0.00237	0.00220	0.00323	0.00685
4,4'-DDT	0.0004	0.0004	0.004	0.00729	0.00678	0.00996	0.0210
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	262	473	4730	8621	8018	11785	24934
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	77.3	71.9	105	223
m-Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	10845	10086	14825	31366
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	60129	55920	82202	173910
p-Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.79	2.24	22.4	40.8	38.0	55.8	118
1,2-Dichloroethane	5	364	3640	6634	6170	9069	19188
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	1004530	934213	1373293	2905402
Dichloromethane [Methylene Chloride]	5	13333	133330	243013	226002	332222	702865
1,2-Dichloropropane	5	259	2590	4721	4390	6453	13653
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	2169	2017	2965	6273

Dicofol [Kelthane]	0.30	0.30	3	5.47	5.09	7.47	15.8
Dieldrin	2.0E-05	2.0E-05	2.0E-04	0.000365	0.00033 9	0.00049 8	0.00105
2,4-Dimethylphenol	444	8436	84360	153758	142995	210202	444714
Di-*n*-Butyl Phthalate	88.9	92.4	924	1684	1566	2302	4870
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	7.97E-07	0.0000015	0.0000014	0.0000020	0.0000042
Endrin	0.02	0.02	0.2	0.365	0.339	0.498	1.05
Epichlorohydrin	53.5	2013	20130	36690	34121	50158	106117
Ethylbenzene	700	1867	18670	34029	31647	46520	98421
Ethylene Glycol	46744	1.68E+07	1.68E+08	306203630	284769376	418610982	885632758
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor	8.0E-05	0.0001	0.001	0.00182	0.00170	0.00249	0.00527
Heptachlor Epoxide	0.00029	0.00029	0.0029	0.00529	0.00492	0.00722	0.0152
Hexachlorobenzene	0.00068	0.00068	0.0068	0.0124	0.0115	0.0169	0.0358
Hexachlorobutadiene	0.21	0.22	2.2	4.01	3.73	5.48	11.5
Hexachlorocyclohexane (*alpha*)	0.0078	0.0084	0.084	0.153	0.142	0.209	0.442
Hexachlorocyclohexane (*beta*)	0.15	0.26	2.6	4.74	4.41	6.47	13.7
Hexachlorocyclohexane (*gamma*) [Lindane]	0.2	0.341	3.41	6.22	5.78	8.49	17.9
Hexachlorocyclopentadiene	10.7	11.6	116	211	197	289	611
Hexachloroethane	1.84	2.33	23.3	42.5	39.5	58.0	122
Hexachlorophene	2.05	2.90	29	52.9	49.2	72.2	152
4,4'-Isopropylidenediphenol	1092	15982	159820	291294	270904	398228	842510
Lead	1.15	3.83	38.3	306	285	418	885
Mercury	0.0122	0.0122	0.122	0.222	0.207	0.303	0.643
Methoxychlor	2.92	3.0	30	54.7	50.9	74.7	158
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	18080595	16814954	24717981	52294505
Methyl *tert*-butyl ether [MTBE]	15	10482	104820	191049	177676	261183	552571
Nickel	332	1140	11400	35869	33358	49036	103744
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	34138	31748	46670	98737
N-Nitrosodiethylamine	0.0037	2.1	21	38.3	35.6	52.3	110
N-Nitroso-di-*n*-Butylamine	0.119	4.2	42	76.6	71.2	104	221
Pentachlorobenzene	0.348	0.355	3.55	6.47	6.02	8.84	18.7
Pentachlorophenol	0.22	0.29	2.9	5.29	4.92	7.22	15.2
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.0117	0.0108	0.0159	0.0337
Pyridine	23	947	9470	17260	16052	23596	49922
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	4.37	4.07	5.98	12.6
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	480	447	656	1389
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	5103	4746	6976	14760
Thallium	0.12	0.23	2.3	4.19	3.90	5.73	12.1
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	0.200	0.186	0.274	0.579
2,4,5-TP [Silvex]	50	369	3690	6726	6255	9194	19452
1,1,1-Trichloroethane	200	784354	7843540	14295955	13295238	19543999	41348190
1,1,2-Trichloroethane	5	166	1660	3026	2814	4136	8750
Trichloroethylene [Trichloroethene]	5	71.9	719	1310	1219	1791	3790
2,4,5-Trichlorophenol	1039	1867	18670	34029	31647	46520	98421
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	0.23	16.5	165	301	280	411	869

CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

Aquatic Life	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Aldrin	5.72	6.95
Aluminum	1890	2295
Arsenic	1046	1270
Cadmium	13.6	16.5
Carbaryl	3.81	4.63
Chlordane	0.0315	0.0382
Chlorpyrifos	0.158	0.192
Chromium (trivalent)	4436	5386
Chromium (hexavalent)	29.9	36.3
Copper	114	138
Cyanide (free)	84.2	102
4,4'-DDT	0.00787	0.00956
Demeton	0.787	0.956
Diazinon	0.324	0.393
Dicofol [Kelthane]	113	137
Dieldrin	0.0157	0.0191
Diuron	400	486
Endosulfan I (*alpha*)	0.419	0.509
Endosulfan II (*beta*)	0.419	0.509
Endosulfan sulfate	0.419	0.509
Endrin	0.0157	0.0191
Guthion [Azinphos Methyl]	0.0787	0.0956
Heptachlor	0.0315	0.0382
Hexachlorocyclohexane (*gamma*) [Lindane]	0.630	0.765
Lead	171	208
Malathion	0.0787	0.0956
Mercury	4.57	5.56
Methoxychlor	0.236	0.286
Mirex	0.00787	0.00956
Nickel	1206	1465
Nonylphenol	51.9	63.1
Parathion (ethyl)	0.102	0.124
Pentachlorophenol	37.1	45.1
Phenanthrene	57.2	69.5
Polychlorinated Biphenyls [PCBs]	0.110	0.133
Selenium	38.1	46.3
Silver	9.35	11.3
Toxaphene	0.00157	0.00191
Tributyltin [TBT]	0.189	0.229
2,4,5 Trichlorophenol	259	315
Zinc	1014	1231

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	2005	2435
Aldrin	0.000200	0.000242

Anthracene	22971	27893
Antimony	18680	22683
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	10133	12305
Benzidine	1.86	2.26
Benzo(*a*)anthracene	0.436	0.529
Benzo(*a*)pyrene	0.0436	0.0529
Bis(chloromethyl)ether	4.78	5.81
Bis(2-chloroethyl)ether	747	907
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	131	159
Bromodichloromethane [Dichlorobromomethane]	4796	5824
Bromoform [Tribromomethane]	18488	22450
Cadmium	N/A	N/A
Carbon Tetrachloride	802	974
Chlordane	0.0436	0.0529
Chlorobenzene	47739	57968
Chlorodibromomethane [Dibromochloromethane]	3191	3875
Chloroform [Trichloromethane]	134252	163020
Chromium (hexavalent)	8755	10632
Chrysene	43.9	53.3
Cresols [Methylphenols]	162229	196992
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0348	0.0423
4,4'-DDE	0.00226	0.00275
4,4'-DDT	0.00697	0.00847
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	8250	10018
1,2-Dibromoethane [Ethylene Dibromide]	73.9	89.8
m-Dichlorobenzene [1,3-Dichlorobenzene]	10378	12601
o-Dichlorobenzene [1,2-Dichlorobenzene]	57541	69871
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	39.0	47.4
1,2-Dichloroethane	6348	7709
1,1-Dichloroethylene [1,1-Dichloroethene]	961305	1167299
Dichloromethane [Methylene Chloride]	232555	282389
1,2-Dichloropropane	4517	5485
1,3-Dichloropropene [1,3-Dichloropropylene]	2075	2520
Dicofol [Kelthane]	5.23	6.35
Dieldrin	0.000348	0.000423
2,4-Dimethylphenol	147141	178672
Di-*n*-Butyl Phthalate	1611	1957
Dioxins/Furans [TCDD Equivalents]	0.0000014	0.0000017
Endrin	0.348	0.423
Epichlorohydrin	35110	42634
Ethylbenzene	32564	39542
Ethylene Glycol	293027687	355819334
Fluoride	N/A	N/A
Heptachlor	0.00174	0.00211

Heptachlor Epoxide	0.00505	0.00614
Hexachlorobenzene	0.0118	0.0144
Hexachlorobutadiene	3.83	4.65
Hexachlorocyclohexane (*alpha*)	0.146	0.177
Hexachlorocyclohexane (*beta*)	4.53	5.50
Hexachlorocyclohexane (*gamma*) [Lindane]	5.94	7.22
Hexachlorocyclopentadiene	202	245
Hexachloroethane	40.6	49.3
Hexachlorophene	50.5	61.4
4,4'-Isopropylidenediphenol	278760	338494
Lead	292	355
Mercury	0.212	0.258
Methoxychlor	52.3	63.5
Methyl Ethyl Ketone	17302587	21010284
Methyl *tert*-butyl ether [MTBE]	182828	222005
Nickel	34325	41681
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	32669	39669
N-Nitrosodiethylamine	36.6	44.4
N-Nitroso-di-*n*-Butylamine	73.2	88.9
Pentachlorobenzene	6.19	7.51
Pentachlorophenol	5.05	6.14
Polychlorinated Biphenyls [PCBs]	0.0111	0.0135
Pyridine	16517	20057
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	4.18	5.08
1,1,2,2-Tetrachloroethane	459	558
Tetrachloroethylene [Tetrachloroethylene]	4883	5930
Thallium	4.01	4.87
Toluene	N/A	N/A
Toxaphene	0.191	0.232
2,4,5-TP [Silvex]	6436	7815
1,1,1-Trichloroethane	13680799	16612399
1,1,2-Trichloroethane	2895	3515
Trichloroethylene [Trichloroethene]	1254	1522
2,4,5-Trichlorophenol	32564	39542
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	287	349