Technical Package Cover Page

This file contains the following documents:

1. Summary of application (in plain language)
2. First notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
3. Second notice (NAPD-Notice of Preliminary Decision)
4. Application materials (**NOTE:** This application was declared Administratively Complete before June 1, 2024. Application materials are available for review at the Public Viewing Location provided in the NORI.)
5. Draft permit
6. Technical summary or fact sheet

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

This template is a guide to assist applicant's in developing a plain language summary as required by 30 Texas Administrative Code Chapter 39 Subchapter H. Applicant's may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

Covia Clay, LLC (CN605901685) operates the Covia Troup Facility (RN100219120), a ball clay mining facility. The facility is located west of the intersection of County Road 470 and Farm to Market Road 13, in Troup and at the intersection of County Road 4401 and 4403 in Jacksonville, in Cherokee County, Texas 75789 & 75766. The facility is proposing to add a settling pond (Pond 8) and associated outfall (Outfall 008). The settling pond will be located at the following coordinates: 31.899124, -95.030611. The dimensions of the pond are proposed to be approximately 400 ft east-west and 200 ft north-south. The settling pond will be lined with clay. Water from the mining pit that will be located south of the settling pond will be treated in situ and then pumped via above ground piping to the settling pond. The pond will discharge via gravity flow through above ground piping directly to Caney Creek. Flow is expected to be intermittent and variable (likely rainfall dependent).

Discharges from the facility are expected to contain sediment and have a low pH from groundwater interference. Mine pit water (from stormwater and groundwater) is treated by settling ponds and alkaline materials as needed.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

AGUAS RESIDUALES INDUSTRIALES/AGUAS PLUVIALES

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT AMENDMENT

PERMIT NO. WQ0002973000

APPLICATION. Covia Clay LLC, 2829 Technology Forest Boulevard, The Woodlands, Texas 77381, which operates a ball clay mine, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002973000 (EPA I.D. No. TX0104175) to authorize the addition of a holding pond and Outfall 008 to discharge mine pit water and stormwater at an intermittent and flow-variable volume. The site is located west of the intersection of County Road 4706 and Farm-to-Market Road 13, near the city of Troup, and at the intersection of County Road 4401 and County Road 4403 near the city of Jacksonville, in Cherokee County, Texas 75789 and 75766. The discharge route is from the site via Outfalls 001, 002, and 005 to unnamed tributaries of Hampton Creek, thence to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Lake Striker, thence to Striker Creek; via Outfalls 007 and 006 to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Lake Striker, thence to Striker Creek; and via proposed Outfall 008 via on-site pond, thence to Caney Creek, thence to Mud Creek, thence all outfalls to Angelina River Above Sam Rayburn Reservoir. TCEQ received this application on April 17, 2024. The permit application will be available for viewing and copying at Cameron-J. Jarvis Troup Municipal Library, 102 South Georgia Street, Troup, in Cherokee County, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.054166,32.095833&level=18

ADDITIONAL NOTICE. TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. **Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.**

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public

interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing.** A contested case hearing is a legal proceeding similar to a civil trial in state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period and, the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.**

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at www.tceq.texas.gov/goto/cid. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. All public comments and requests must be submitted either electronically at **https://www14.tceq.texas.gov/epic/eComment/**, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Covia Clay LLC at the address stated above or by calling Mr. Forrest Howell, Plant Manager, at 903-842-3114.

Issuance Date: May 17, 2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR TPDES PERMIT FOR INDUSTRIAL WASTEWATER

AMENDMENT

Permit No. WQ0002973000

APPLICATION AND PRELIMINARY DECISION. Covia Clay LLC, 2829 Technology Forest Boulevard, Suite 100, The Woodlands, Texas 77381, which operates Covia Troup Facility, a ball clay mine, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002973000 to add a clay-lined settling pond and an associated new outfall (Outfall 008) to discharge mine pit water and stormwater on an intermittent and flow-variable basis. The TCEQ received this application on April 17, 2024.

The facility is located approximately 3,860 feet southwest of the intersection of Farm-to-Market Road 13 and Farm-to-Market Road 856, in Cherokee County, Texas 75789. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.054166,32.095833&level=18

The effluents are discharged via Outfalls 001, 002, and 005 to unnamed tributaries of Hampton Creek, thence to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Striker Creek, thence to Lake Striker, thence to Striker Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment No. 0611 of the Neches River Basin; via Outfalls 006 and 007 to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Striker Creek, thence to Lake Striker, thence to Striker Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment 0611 of the Neches River Basin; and via Outfall 008 to an on-site pond, thence to Caney Creek, thence to Mud Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment No. 0611 of the Neches River Basin. The unclassified receiving water uses are minimal aquatic life use for the unnamed tributaries, limited aquatic life use for Hampton Creek, intermediate aquatic life use for Mill Creek, and high aquatic life use for Caney Creek and Mud Creek. The designated uses for Segment No. 0611 are primary contact recreation, public water supply, and high aquatic life use.

In accordance with Title 30 Texas Administrative Code Section 307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Caney Creek and Mud Creek, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at Cameron-J. Jarvis Troup Municipal Library, 102 South Georgia Street, Troup, in Cherokee County, Texas.

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit written or oral comment or to ask questions about the application. Generally, the TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for public comments, the Executive Director will consider the comments and prepare a response to all relevant and material, or significant public comments. **The response to comments, along with the Executive Director's decision on the application, will be mailed to everyone who submitted public comments or who requested to be on a mailing list for this application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the Executive Director's decision.** A contested case hearing is a legal proceeding similar to a civil trial in a state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period; and the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.
The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.**

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or a timely request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the application and requests to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be added to: (1) the permanent list for a specific applicant name and permit number; and (2) the mailing list for a specific county. If you wish to be placed on the permanent and the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at https://www.tceq.texas.gov/goto/comment **within 30 days from the date of newspaper publication of this notice.**

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at https://www.tceq.texas.gov/goto/cid/. Search the database using the permit number for this application**,** which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at https://www.tceq.texas.gov/goto/comment, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address, and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, toll free, at 1-800-687-4040 or visit their website at https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Covia Clay LLC at the address stated above or by calling Mr. Forrest Howell, Plant Manager, at (903) 842-3114.

Issued: October 31, 2025

TPDES PERMIT NO.
WQ0002973000
[For TCEQ office use only -
EPA I.D. No. TX0104175]

This major amendment without renewal replaces TPDES Permit No. WQ0002973000, issued on December 02, 2021.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code
and 40 CFR Part 436, Subpart AH

Covia Clay LLC

whose mailing address is

2829 Technology Forest Boulevard, Suite 100
The Woodlands, Texas 77381

is authorized to treat and discharge wastes from Covia Troup Facility, a ball clay mine (SIC 1455)

located approximately 3,860 feet southwest of the intersection of Farm-to-Market Road 13 and Farm-to-Market Road 856, in Cherokee County, Texas 75789

via Outfalls 001, 002, and 005 to unnamed tributaries of Hampton Creek, thence to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Striker Creek, thence to Lake Striker, thence to Striker Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment 0611 of the Neches River Basin; via Outfalls 006 and 007 to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Striker Creek, thence to Lake Striker, thence to Striker Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment 0611 of the Neches River Basin; and via Outfall 008 to an on-site pond, thence to Caney Creek, thence to Mud Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment 0611 of the Neches River Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight on December 02, 2026.

ISSUED DATE:

_____
For the Commission

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations [1]:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [2]	Estimate
Total Suspended Solids	35	70	70	1/day [2]	Grab

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored 1/day [2] by grab sample.

3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples must be taken at the following location: At Outfall 001, following the last treatment unit, at the end of the discharge pipe and prior to commingling with any other waters.

[1] Additional effluent limitations are established based on flow in Hampton Creek. See pages 2a-2c for additional effluent limitations and monitoring requirements (Outfalls 101, 201, and 301).

[2] When discharge occurs.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	8.93 cfs, min	N/A	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	4,000	8,480	8,480	1/day [1]	Grab
Sulfate	N/A	1,696	1,696	1/day [1]	Grab
Total Aluminum	0.834	1.765	1.765	1/day [1]	Grab
Total Copper	0.032	0.068	0.068	1/day [1]	Grab
Total Nickel	N/A	1.771	1.771	1/day [1]	Grab
Total Zinc	0.319	0.675	0.675	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following location: At Outfall 001, following the last treatment unit, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.C.

[2] See Other Requirement No. 1.C.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	4.46 cfs, min	8.92 cfs	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	4,000	8,480	8,480	1/day [1]	Grab
Sulfate	N/A	1,696	1,696	1/day [1]	Grab
Total Aluminum	0.834	1.765	1.765	1/day [1]	Grab
Total Copper	0.032	0.068	0.068	1/day [1]	Grab
Total Nickel	N/A	1.771	1.771	1/day [1]	Grab
Total Zinc	0.319	0.675	0.675	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following location: At Outfall 001, following the last treatment unit, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.D.

[2] See Other Requirement No. 1.D.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	Report, cfs	4.45 cfs	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	346	732	732	1/day [1]	Grab
Sulfate	69	146	146	1/day [1]	Grab
Total Aluminum	0.834	1.765	1.765	1/day [1]	Grab
Total Copper	0.029	0.061	0.061	1/day [1]	Grab
Total Nickel	0.124	0.264	0.264	1/day [1]	Grab
Total Zinc	0.319	0.675	0.675	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following location: At Outfall 001, following the last treatment unit, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.E.

[2] See Other Requirement No. 1.E.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 002

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations [1]:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [2]	Estimate
Total Suspended Solids	35	70	70	1/day [2]	Grab

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored 1/day [2] by grab sample.

3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples must be taken at the following locations: at Outfall 002, at the end of the discharge pipe and prior to commingling with any other waters.

[1] Additional effluent limitations are established based on flow in Hampton Creek. See pages 2e-2g for additional effluent limitations and monitoring requirements (Outfalls 102, 202, and 302).

[2] When discharge occurs.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	8.93 cfs, min	N/A	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	Report	Report	N/A	1/day [1]	Grab
Sulfate	N/A	1,696	1,696	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following locations: at Outfall 002, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.C.

[2] See Other Requirement No. 1.C.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	4.46 cfs, min	8.92 cfs	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	Report	Report	N/A	1/day [1]	Grab
Sulfate	N/A	1,696	1,696	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following locations: at Outfall 002, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.D.

[2] See Other Requirement No. 1.D.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	Report, cfs	4.45 cfs	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	343	727	727	1/day [1]	Grab
Sulfate	68	145	145	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following locations: at Outfall 002, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.E.

[2] See Other Requirement No. 1.E.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 005

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations [1] :

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [2]	Estimate
Total Suspended Solids	35	70	70	1/day [2]	Grab

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored 1/day [2] by grab sample.

3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples must be taken at the following locations: at Outfall 005, at the end of the discharge pipe and prior to commingling with any other waters.

[1] Additional effluent limitations are established based on flow in Hampton Creek. See pages 2i-2k for additional effluent limitations and monitoring requirements (Outfalls 105, 205, and 305).

[2] When discharge occurs.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	8.93 cfs, min	N/A	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	Report	Report	N/A	1/day [1]	Grab
Sulfate	N/A	1,696	1,696	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following locations: at Outfall 005, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.C.

[2] See Other Requirement No. 1.C.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	4.46 cfs, min	8.92 cfs	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	Report	Report	N/A	1/day [1]	Grab
Sulfate	N/A	1,696	1,696	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following locations: at Outfall 005, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.D.

[2] See Other Requirement No. 1.D.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	Report, cfs	4.45 cfs	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	347	735	735	1/day [1]	Grab
Sulfate	69	147	147	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following locations: at Outfall 005, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.E.

[2] See Other Requirement No. 1.E.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS — Outfall Number 006

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations [1]:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [2]	Estimate
Total Suspended Solids	35	70	70	1/day [2]	Grab

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored 1/day [2] by grab sample.

3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples must be taken at the following location: At Outfall 006, at the end of the discharge pipe and prior to commingling with any other waters.

[1] Additional effluent limitations are established based on flow in Hampton Creek. See pages 2m-20 for additional effluent limitations and monitoring requirements (Outfalls 106, 206, and 306).

[2] When discharge occurs.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	8.93 cfs, min	N/A	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	Report	Report	N/A	1/day [1]	Grab
Sulfate	Report	1,696	1,696	1/day [1]	Grab
Total Aluminum	0.834	1.765	1.765	1/day [1]	Grab
Total Zinc	N/A	0.675	0.675	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following location: At Outfall 006, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.C.

[2] See Other Requirement No. 1.C.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	4.46 cfs, min	8.92 cfs	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	Report	Report	N/A	1/day [1]	Grab
Sulfate	Report	1,696	1,696	1/day [1]	Grab
Total Aluminum	0.834	1.765	1.765	1/day [1]	Grab
Total Zinc	N/A	0.675	0.675	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following location: At Outfall 006, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.D.

[2] See Other Requirement No. 1.D.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
River Flow [2]	Report, cfs	4.45 cfs	N/A	2/discharge event [1]	Instantaneous
Total Dissolved Solids	343	727	727	1/day [1]	Grab
Sulfate	68	145	145	1/day [1]	Grab
Total Aluminum	0.834	1.765	1.765	1/day [1]	Grab
Total Zinc	0.319	0.675	0.675	1/day [1]	Grab

2. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples must be taken at the following location: At Outfall 006, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirement Nos. 1.A. and 1.E.

[2] See Other Requirement No. 1.E.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS — Outfall Number 007

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
Total Suspended Solids	35	70	70	1/day [1]	Grab
Total Dissolved Solids	Report	Report	N/A	1/day [1]	Grab
Sulfate	Report	Report	N/A	1/day [1]	Grab

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored 1/day [1] by grab sample.

3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples must be taken at the following location: At Outfall 007, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs. See Other Requirements Nos. 1A and 1B.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS — Outfall Number 008

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge mine pit water and stormwater subject to the following effluent limitations:

   Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/day [1]	Estimate
Total Suspended Solids	35	70	70	1/day [1]	Grab

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored 1/day [1] by grab sample.

3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples must be taken at the following location: At Outfall 008, at the end of the discharge pipe and prior to commingling with any other waters.

[1] When discharge occurs.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC §§305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in Texas Water Code §26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

    a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder, and limited to major domestic wastewater discharge facilities with a one million gallons per day or greater permitted flow.

    b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.

    c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.

    d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.

    e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.

    f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

    a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.

        i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

        ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.

    b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.

    c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.

    d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the “daily discharge” is calculated as the total

mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day.

The "daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

e. Bacteria concentration (Fecal coliform, *E. coli*, or Enterococci) – the number of colonies of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substitute value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD × Concentration, mg/L × 8.34).

g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

   a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(c).

   b. Grab sample - an individual sample collected in less than 15 minutes.

4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.

5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.

6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

   Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge that is described by this permit whether or not a discharge is made for that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act; TWC Chapters 26, 27, and 28; and THSC Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

   a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.

   b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

   a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

   b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR §264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.

   c. Records of monitoring activities shall include the following:

      i. date, time, and place of sample or measurement;
      ii. identity of individual who collected the sample or made the measurement;
      iii. date and time of analysis;
      iv. identity of the individual and laboratory who performed the analysis;
      v. the technique or method of analysis; and
      vi. the results of the analysis or measurement and quality assurance/quality control records.

      The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

   If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

   All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

   Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the regional office and the Enforcement Division (MC 224).

7. Noncompliance Notification

   a. In accordance with 30 TAC §305.125(9) any noncompliance that may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the regional office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the regional office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective September 1, 2020, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

   b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

      i. unauthorized discharges as defined in Permit Condition 2(g).
      ii. any unanticipated bypass that exceeds any effluent limitation in the permit.
      iii. violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.

   c. In addition to the above, any effluent violation that deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the regional office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.

   d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

   All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the regional office, orally or by facsimile transmission within 24 hours, and both the regional office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

   a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) that is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

      i. one hundred micrograms per liter (100 µg/L);
      ii. two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      iii. five (5) times the maximum concentration value reported for that pollutant in the permit application; or
      iv. the level established by the TCEQ.

b. That any activity has occurred or will occur that would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i. five hundred micrograms per liter (500 μg/L);
ii. one milligram per liter (1 mg/L) for antimony;
iii. ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
iv. the level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

11. All POTWs must provide adequate notice to the Executive Director of the following:

a. any new introduction of pollutants into the POTW from an indirect discharger that would be subject to CWA §301 or §306 if it were directly discharging those pollutants;

b. any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and

c. for the purpose of this paragraph, adequate notice shall include information on:

i. the quality and quantity of effluent introduced into the POTW; and
ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.

b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:

i. violation of any terms or conditions of this permit;
ii. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending, or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.

b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment,

revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.

e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§305.62 and 305.66 and TWC §7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.

h. In accordance with 30 TAC §305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility that does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.

i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA §402, or any requirement imposed in a pretreatment program approved under the CWA §§402(a)(3) or 402(b)(8).

3. Inspections and Entry

a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC Chapter 361.

b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit, or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC §7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment or Renewal

   a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:

      i. the alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC §305.534 (relating to New Sources and New Dischargers); or

      ii. the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or

      iii. the alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

   b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.

   c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.

   d. Prior to accepting or generating wastes that are not described in the permit application or that would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.

   e. In accordance with the TWC §26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.

   f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA §307(a) for a toxic pollutant that is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA §307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

   a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

   b. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

   This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

   Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to Texas Water Code Chapter 11.

8. Property Rights

   A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

   The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

    The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy.

    a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:

       i. the permittee;
       ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
       iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.

    b. This notification must indicate:

       i. the name of the permittee;
       ii. the permit number(s);
       iii. the bankruptcy court in which the petition for bankruptcy was filed; and
       iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.

2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:

   a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.

   b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment or other treatment unit regulated by this permit.

4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, or retention of inadequately treated wastewater.

5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC §7.302(b)(6).

7. Documentation

   For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words “confidential business information” on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

   a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion or upgrading of the domestic wastewater treatment or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment or collection facilities. In the case of a domestic wastewater treatment facility that reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

      If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.

c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.

10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.

11. Facilities that generate industrial solid waste as defined in 30 TAC §335.1 shall comply with these provisions:

a. Any solid waste, as defined in 30 TAC §335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.

b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC §335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.

d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC §335.5.

e. The term “industrial solid waste management unit” means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.

f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:

i. volume of waste and date(s) generated from treatment process;
ii. volume of waste disposed of on-site or shipped off-site;
iii. date(s) of disposal;

iv. identity of hauler or transporter;
v. location of disposal site; and
vi. method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC Code Chapter 361.

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OTHER REQUIREMENTS

1. FLOW-DEPENDENT DISCHARGE LIMITATIONS AND CONDITIONS

   A. The permittee shall monitor and record the flow in Hampton Creek, at a minimum, at the commencement of discharge from any outfall and at the completion of such discharge. The entire discharge event at a given outfall is subject to the limitations of the most restrictive tier applicable based on the stream flow measurements taken, regardless of the actual flow that was occurring at the time samples were taken. Flow monitoring (gauge height readings) must be performed at the flood gauge located at the Farm-to-Market Road 13 bridge that crosses Hampton Creek. The permittee shall maintain records of all gauge readings for those days when discharge occurs.

   B. Limits on pages 2, 2d, 2h, 2l, and 2p (Outfalls 001, 002, 005, 006, and 007) are applicable under all flow conditions in Hampton Creek.

   C. Limits on pages 2a, 2e, 2i, and 2m (reporting Outfalls 101, 102, 105, and 106) are applicable only when the flow in Hampton Creek is at or above 8.93 cfs. A gauge height of 0.20 feet or greater is considered to equal a flow of 8.93 cfs or greater.

   D. Limits on pages 2b, 2f, 2j, and 2n (reporting Outfalls 201, 202, 205, and 206) are applicable only when the flow in Hampton Creek is at or above 4.46 cfs but below 8.93 cfs. A gauge height of 0.10 feet is considered to equal a flow of 4.46 cfs.

   E. Limits on pages 2c, 2g, 2k, and 2o (reporting Outfalls 301, 302, 305, and 306) are applicable only when the flow in Hampton Creek is below 4.46 cfs. A gauge height of 0.10 feet is considered to equal a flow of 4.46 cfs.

2. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 5 within 24 hours from the time the permittee becomes aware of the violation, followed by a written report within five working days to TCEQ Region 5 and the Enforcement Division (MC-224):

Pollutant	MAL (mg/L)
Aluminum (Total)	0.0025
Copper (Total)	0.002
Nickel (Total)	0.002
Zinc (Total)	0.005

Test methods used must be sensitive enough to demonstrate compliance with the permit effluent limitations. If an effluent limit for a pollutant is less than the MAL, then the test method for that pollutant must be sensitive enough to demonstrate compliance at the MAL. Permit compliance/noncompliance determinations will be based on the effluent limitations contained in this permit, with consideration given to the MAL for the pollutants specified above.

When an analysis of an effluent sample for any of the parameters listed above indicates no detectable levels above the MAL and the test method detection level is as sensitive as the specified MAL, a value of zero (0) shall be used for that measurement when making calculations for the self-reporting form. This applies to determinations of daily maximum concentration, calculations of loading and daily averages, and other reportable results.

When a reported value is zero (0) based on this MAL provision, the permittee shall submit the following statement with the self-reporting form either as a separate attachment to the form or as a statement in the comments section of the form:

"The reported value(s) of zero (0) for [list pollutant(s)] on the self-reporting form for [monitoring period date range] is based on the following conditions: 1) the analytical

method used had a method detection level as sensitive as the MAL specified in the permit, and 2) the analytical results contained no detectable levels above the specified MAL."

When an analysis of an effluent sample for a pollutant indicates no detectable levels and the test method detection level is not as sensitive as the MAL specified in the permit, or an MAL is not specified in the permit for that parameter, the level of detection achieved shall be used for that measurement when making calculations for the self-reporting form. A zero (0) may not be used.

3. SURFACE WATER PROTECTION PROVISIONS

A. Stormwater from overburden piles and areas where soil is disturbed must be routed to a holding pond, a mined-out area, or to an active or inactive mining pit. The permittee may grade and slope the overburden and disturbed areas, and construct ditches, dams and berms to accomplish this requirement.

B. All ditches, dams, berms, and disturbed creek banks must be stabilized by the use of vegetation, asphalt, riprap, or other suitable materials and techniques.

C. External slopes of overburden must be shaped to minimize erosion and to provide a surface to be seeded.

D. Water from any ponds, active or inactive mining pits, and mined-out areas must be discharged only through permitted outfalls and in compliance with the effluent limitations and other requirements of this permit. As part of a wastewater management plan, the permittee may pump water between ponds, active and inactive mining pits, and mined-out areas.

4. MAINTENANCE PROVISIONS

The permittee shall prepare and carry out a maintenance program as follows:

A. An inspection of the mine must be conducted once per quarter, at a minimum.

B. The permittee shall record the date of inspections, findings, and maintenance activities (start and completion dates) on a quarterly basis. These records must be maintained for a minimum period of three years and be readily available for inspection by TCEQ personnel.

C. Failure to substantially accomplish the maintenance requirements for this provision is a violation of this permit.

D. The maintenance program must continue until adequate closure, in accordance with Other Requirement No. 5, has been accomplished and approved by the Executive Director.

5. CLOSURE

The following procedures must be carried out by the permittee for all mine areas in a timely manner after clay mining has been completed:

A. A closure schedule must be developed and submitted to the team leader of the TCEQ Industrial Permits Team (MC-148) within one month of final cessation of mining activities.

B. After mining operations are complete, or if no mining activities are scheduled to reuse the mine area for a period of one (1) year or more, overburden piles must be graded to remove sharp peaks and ridges.

C. All mounds of overburden and other areas of disturbed soil must be seeded and a vegetative cover established by the permittee within one (1) year after cessation of mining activities. The vegetative cover established must be capable of self-regeneration and plant succession and at least equal in extent of cover to the natural vegetation of the area.

D. When the mine pits are backfilled to a level such that ponding of water does not occur, the overburden in the pits must be stabilized in accordance with Other Requirement No. 5.C.

E. Failure to accomplish closing operations in accordance with the closing schedule is a violation of the permit.

F. When it is shown, to the satisfaction of the Executive Director, that all seeding and establishment of vegetative cover has been accomplished in accordance with Other Requirement No. 5.C, the mine will be considered closed.

6. NOTIFICATION OF DISCHARGE

A. For Outfall 001, when discharge occurs during rainfall events, the TCEQ Region 5 Office must be notified within 24 hours after the commencement of a discharge. In all other circumstances, the permittee shall give the TCEQ Region 5 Office a minimum of 24 hours notification prior to commencement of discharge from Outfall 001 unless emergency conditions exist. If emergency conditions exist, the TCEQ Region 5 Office must be notified within 24 hours after the commencement of the discharge, and a written report detailing the nature of the emergency must be submitted to the TCEQ Region 5 Office within 5 days from the date of the discharge from Outfall 001.

B. For Outfalls 002, 005, 006, 007, and 008, the TCEQ Region 5 Office must be notified within 24 hours after the commencement of discharge unless mine pit water consisting entirely of accumulated groundwater is to be discharged, in which case the TCEQ Region 5 Office must be notified 24 hours prior to discharge.

7. MIXING ZONE DEFINITIONS

Tiers I and II
Outfalls 001, 002, 005, 006, and 007 – The only regulatory mixing zone allowed is the Zone of Initial Dilution (ZID), which is defined as the area within the receiving stream extending 60 feet downstream and 20 feet upstream from the point of discharge. Acute toxic criteria apply at the edge of the ZID.

Tier III
Outfalls 001, 002, and 005 – There is no mixing zone established for this discharge to an intermittent stream. Acute toxic criteria apply at the point of discharge.

Outfalls 006, 007, and 008 – There is no mixing zone established for this discharge to an intermittent stream with perennial pools. Chronic toxic criteria apply at the point of discharge.

8. DUST SUPPRESSION

The permittee is authorized to use effluent from sedimentation ponds for dust suppression. With respect to using effluent for dust suppression, the permittee shall comply with the following requirements:

A. Dust suppression practices must be designed and managed so as to prevent runoff, ponding of effluent, or contamination of ground and surface waters and to prevent the occurrence of nuisance conditions in the area.

B. Application of effluent for dust suppression must be accomplished in a manner that prevents contact with vehicular traffic or personnel present within the dust suppression area. Dust suppression with effluent must not occur during times when the ground has standing water or the ground is saturated. Reclaimed effluent must not be used for dust suppression within 24 hours after a rainfall event of 0.5 inches or greater or until visible dust can be observed from the mining activities, whichever occurs soonest.

C. Spray fixtures for the dust suppression systems must be of such design that they cannot be operated by unauthorized personnel.

D. The permittee shall keep records of volumes, dates, and areas where effluent is used for dust suppression. These records must be updated daily and maintained onsite for review by TCEQ personnel for a minimum of three years.

E. The volume of wastewater used for dust suppression must not exceed 100,000 gallons per day.

9. RETEST REQUIREMENTS

A. Wastewater discharged via Outfalls 005, 006, 007, and 008 must be individually sampled and analyzed for those parameters listed in Tables 1 and 2 of Attachment A of this permit for at least one sampling event. If multiple sampling events are performed, they must be a minimum of one week apart. Analytical testing for each outfall must be completed within the first 90 days after discharge from that outfall and submitted to the TCEQ Industrial Permits Team (MC-148). Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and monitoring requirements.

B. Wastewater discharged via Outfalls 001 and 002 must be individually sampled and analyzed for those parameters listed in the table below for at least one sampling event. If multiple sampling events are performed, they must be a minimum of one week apart. Analytical testing must be completed within the first 90 days after discharge and submitted to the TCEQ Industrial Permits Team (MC-148). Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and monitoring requirements.

Outfall No.:	**Effluent Concentration (µg/L)**					**MAL (µg/L**
Pollutant	**Samp.**	**Samp.**	**Samp.**	**Samp.**	**Average**	
Flow (MGD)						—
Total Antimony						5
Total Arsenic						0.5
Total Barium						3
Total Beryllium						0.5
Total Cadmium						1
Total Chromium						3
Total Lead						0.5
Total Mercury						0.005
Total Selenium						5
Total Silver						0.5
Total Thallium						0.5

10. BUFFER REQUIREMENTS

The permittee shall maintain a minimum 100-foot buffer between the land application areas and Grissom Creek and associated tributaries.

11. POND REQUIREMENTS

A wastewater pond must comply with the following requirements. A *wastewater pond (or lagoon)* is an earthen structure used to evaporate, hold, store, or treat water that contains a *waste* or *pollutant* or that would cause *pollution* upon *discharge* as those terms are defined in Texas Water

Code § 26.001, but does not include a pond that contains only *stormwater* unless the pond contains *stormwater discharge associated with industrial activity* as those terms are defined in 40 CFR § 122.26(b).

A. Requirements B through G do not apply to mine pits.

B. An **existing** wastewater pond must be maintained to meet or exceed the original approved design and liner requirements; or, in the absence of original approved requirements, must be maintained to prevent unauthorized discharge of wastewater into or adjacent to water in the state. The permittee shall maintain copies of all liner construction and testing documents at the facility or in a reasonably accessible location and make the information available to the executive director upon request.

C. A **new** wastewater pond constructed after the issuance date of this permit must be lined in compliance with one of the following requirements if it will contain process wastewater as defined in 40 CFR §122.2. The executive director will review ponds that will contain only non-process wastewater on a case-by case basis to determine whether the pond must be lined. If a pond will contain only non-process wastewater, the owner shall notify the Industrial Permits Team (MC-148) to obtain a written determination at least 90 days before the pond is placed into service. The permittee must submit all information about the proposed pond contents that is reasonably necessary for the executive director to make a determination. If the executive director determines that a pond does not need to be lined, then the pond is exempt from C1 through C3 and D through G of POND REQUIREMENTS.

A wastewater pond that only contains domestic wastewater must comply with the design requirements in 30 TAC Chapter 217 and 30 TAC §309.13(d) in lieu of items C1 through C3 of this subparagraph.

(1) Soil liner: The soil liner must contain clay-rich soil material (at least 30% of the liner material passing through a #200 mesh sieve, liquid limit greater than or equal to 30, and plasticity index greater than or equal to 15) that completely covers the sides and bottom of the pond. The liner must be at least 3.0 feet thick. The liner material must be compacted in lifts of no more than 8 inches to 95% standard proctor density at the optimum moisture content in accordance with ASTM D698 to achieve a permeability less than or equal to 1×10^{-7} (≤ 0.0000001) cm/sec. For in-situ soil material that meets the permeability requirement, the material must be scarified at least 8 inches deep and then re-compacted to finished grade.

(2) Synthetic membrane: The liner must be a synthetic membrane liner at least 40 mils in thickness that completely covers the sides and the bottom of the pond. The liner material used must be compatible with the wastewater and be resistant to degradation (e.g., from ultraviolet light, chemical reactions, wave action, erosion, etc.). The liner material must be installed and maintained in accordance with the manufacturer's guidelines. A wastewater pond with a synthetic membrane liner must include an underdrain with a leak detection and collection system.

(3) Alternate liner: The permittee shall submit plans signed and sealed by a Texas-licensed professional engineer for any other equivalently-protective pond lining method to the TCEQ Industrial Permits Team (MC-148).

D. For a pond that must be lined according to subparagraph C (including ponds with in-situ soil liners), the permittee shall provide certification, signed and sealed by a Texas-licensed professional engineer, stating that the completed pond lining and any required underdrain with leak detection and collection system for the pond meet the requirements in

subparagraph C1 - C3 before using the pond. The certification shall include the following minimum details about the pond lining system: (1) pond liner type (in-situ soil, amended in-situ soil, imported soil, synthetic membrane, or alternative), (2) materials used, (3) thickness of materials, and (4) either permeability test results or a leak detection and collection system description, as applicable.

The certification must be provided to the TCEQ Water Quality Assessment Team (MC-150), Industrial Permits Team (MC-148), Compliance Monitoring Section (MC-224), and Region 5 Office. A copy of the liner certification and construction details (i.e., as-built drawings, construction QA/QC documentation, and post construction testing) must be kept on-site or in a reasonably accessible location (in either hardcopy or digital format) until the pond is closed.

E. Protection and maintenance requirements for a pond subject to subparagraph B or C (including ponds with in-situ soil liners).

(1) The permittee shall maintain a liner to prevent the unauthorized discharge of wastewater into or adjacent to water in the state.

(2) A liner must be protected from damage caused by animals. Fences or other protective devices or measures may be used to satisfy this requirement.

(3) The permittee shall maintain the structural integrity of the liner and shall keep the liner and embankment free of woody vegetation, animal burrows, and excessive erosion.

(4) The permittee shall inspect each pond liner and each leak detection system at least once per month. Evidence of damage or unauthorized discharge must be evaluated by a Texas licensed professional engineer or Texas licensed professional geoscientist within 30 days. The permittee is not required to drain an operating pond or to inspect below the waterline during these routine inspections.

a. A Texas licensed professional engineer or Texas licensed professional geoscientist must evaluate damage to a pond liner, including evidence of an unauthorized discharge without visible damage.

b. Pond liner damage must be repaired at the recommendation of a Texas licensed professional engineer or Texas licensed professional geoscientist. If the damage is significant or could result in unauthorized discharge, then the repair must be documented and certified by a Texas licensed professional engineer. Within 60 days after a repair is completed, liner certification must be provided to the TCEQ Water Quality Assessment Team (MC-150), Compliance Monitoring Section (MC-224), and Region 5 Office. A copy of the liner certification must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.

c. A release determination and subsequent corrective action will be based on 40 CFR Part 257 or the Texas Risk Reduction Program (30 TAC Chapter 350), as applicable. If evidence indicates that an unauthorized discharge occurred, including evidence that the actual permeability exceeds the design permeability, the matter may also be referred to the TCEQ Enforcement Division to ensure the protection of the public and the environment.

F. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall have a Texas licensed professional engineer perform an evaluation of each pond that requires a liner at least once every five years. The evaluation must include: (1) a physical inspection of the pond liner to check for structural integrity, damage, and evidence of leaking; (2) a review of the liner documentation for the pond; and (3) a review of all

documentation related to liner repair and maintenance performed since the last evaluation. For the purposes of this evaluation, evidence of leaking also includes evidence that the actual permeability exceeds the design permeability. The permittee is not required to drain an operating pond or to inspect below the waterline during the evaluation. A copy of the engineer's evaluation report must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.

G. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall maintain at least 2.0 feet of freeboard in the pond except when:

(1) the freeboard requirement temporarily cannot be maintained due to a large storm event that requires the additional retention capacity to be used for a limited period of time;

(2) the freeboard requirement temporarily cannot be maintained due to upset plant conditions that require the additional retention capacity to be used for treatment for a limited period of time; or

(3) the pond was not required to have at least 2.0 feet of freeboard according to the requirements at the time of construction.

12. IRRIGATION REQUIREMENTS

A. The permittee shall use cultural practices to promote and maintain the health and propagation of the Coastal Bermudagrass (warm season) and winter ryegrass (cool season) crops and other tree varieties and warm and cool season native grasses and to avoid plant lodging. The permittee shall use cultural practices (such as mowing, harvesting, or others) to maintain the health and permanency of the crops. Dates of harvesting, mowing, or other cultural practices used shall be recorded in a log book kept on site to be made available to TCEQ personnel upon request.

B. The irrigation effluent must be analyzed for total Kjeldahl nitrogen (TKN), nitrate/ nitrite-nitrogen, and total phosphorus every year from each source (pond) being used for irrigation and reported in mg/L by September of each sampling year. ***Total Nitrogen*** equals to TKN plus nitrate/nitrite-nitrogen. The most recent analysis results will be used to calculate the nitrogen loading rates. If, after a minimum of three consecutive years, the data indicate minimal amounts of total nitrogen and total phosphorus from each pond, the permittee may submit an evaluation of the three previous years' data with a request to remove these parameters from the irrigation effluent analysis. This request and associated report must be submitted to the TCEQ Water Quality Assessment Team (MC-150) for review/revision and approval with copies to the Region 5 Office.

C. The permittee shall obtain representative soil samples from the root zones of the land application area. Composite sampling techniques must be used. Each composite sample must represent no more than 80 acres with no less than 10 to 15 subsamples representing each composite sample. Subsamples must be composited by like sampling depth, type of crop, and soil type for analysis and reporting. Soil types are soils that have like topsoil or plow layer textures. These soils must be sampled individually from 0 to 6 inches, 6 to 18 inches, and 18 to 30 inches below ground level. The permittee shall sample soils in December to February of each year. Soil samples must be analyzed within 30 days of sample collection.

The permittee shall provide annual soil analyses of the land application area according to the following table:

Parameter	Method	Minimum Analytical Level (MAL)	Reporting units
pH	2:1 (v/v) water to soil mixture		Reported to 0.1 pH units after calibration of pH meter
Electrical Conductivity	2:1 (v/v) water to soil mixture	0.01	dS/m (same as mmho/cm)
Nitrate-nitrogen	From a 1 N KCl soil extract	1	mg/kg (dry weight basis)
Total Kjeldahl Nitrogen (TKN)	For determination of Organic plus Ammonium Nitrogen. Procedures that use Mercury (Hg) are not acceptable.	20	mg/kg (dry weight basis)
Total Nitrogen	= TKN plus Nitrate-nitrogen		mg/kg (dry weight basis)
Plant-available: Phosphorus	Mehlich III with inductively coupled plasma	1 (P)	mg/kg (dry weight basis)
Plant-available: Potassium (K)	May be determined in the same Mehlich III extract with inductively coupled plasma	5 (K)	mg/kg (dry weight basis)
Amendment addition, e.g., gypsum			Report in short tons/acre in the year effected

A copy of this soil testing plan must be provided to the analytical laboratory prior to sample analysis. The permittee shall submit the results of the annual soil sample analyses with copies of the laboratory reports with a map depicting the permanent sampling fields to the TCEQ Region 5 Office and the Enforcement Division (MC-224) no later than the end of September of each sampling year. If wastewater is not applied in a particular year, the permittee shall notify the same TCEQ offices and indicate that wastewater has not been applied on the approved land irrigation site(s) during that year. Results of the soil analyses must be retained on site for five years and available for inspection by authorized representatives of the TCEQ.

D. The permittee shall provide an annual agronomic management plan by September of each year that at a minimum will contain:

(1) The nitrogen and phosphorus loading rates in pounds per acre per year;

(2) The revegetation species per area irrigated and projected areas to be revegetated for the next year;

(3) A gridded map of the revegetated areas (80 acres per grid or smaller) to be used for soil sampling of irrigated areas with depiction of revegetation types [grass (tame and native) areas, forested areas, wildlife areas];

(4) The total nitrogen and phosphorus requirement in pounds per acre per year for each revegetation species;

(5) Total nitrogen loading in pounds per acre per year must be calculated as follows:

$$= \frac{\text{(irrigation volume in gallons)} \times \text{(total nitrogen in mg/liter)} \times (0.00000668)}{\text{(acreage irrigated per vegetation type)}}$$

(6) Total phosphorus loading in pounds of P_2O_5 per acre per year must be calculated as follows:

$$= \frac{\text{(irrigation volume in gallons)} \times \text{(total phosphorus in mg/liter)} \times (0.00001911)}{\text{(acreage irrigated per vegetation type)}}$$

This plan must be submitted within 90 days of permit issuance to the TCEQ Water Quality Assessment Team (MC-150) for review/revision and approval with copies to the Region 5 Office and the Enforcement Division (MC-224).

E. The physical condition of the spray irrigation fields must be monitored on a weekly basis during irrigation. Any areas with problems such as surface runoff, surficial erosion, or stressed or damaged vegetation must be recorded in the field log kept onsite and corrective measures must be initiated within 24 hours of discovery.

Attachment A

Table 1

Outfall No.: ☐C ☐G	Effluent Concentration (mg/L)					
Pollutant	**Samp.**	**Samp.**	**Samp.**	**Samp.**	**Average**	
Flow (MGD)						
BOD (5-day)						
CBOD (5-day)						
Chemical Oxygen Demand						
Total Organic Carbon						
Dissolved Oxygen						
Ammonia Nitrogen						
Total Suspended Solids						
Nitrate Nitrogen						
Total Organic Nitrogen						
Total Phosphorus						
Oil and Grease						
Total Residual Chlorine						
Total Dissolved Solids						
Sulfate						
Chloride						
Fluoride						
Total Alkalinity (mg/L as $CaCO_3$)						
Temperature (°F)						
pH (Standard Units; min/max)						

Table 2

Pollutant	**Effluent Concentration (µg/L)[1]**					**MAL[2] (µg/L)**
	Samp.	**Samp.**	**Samp.**	**Samp.**	**Average**	
Aluminum, Total						2.5
Antimony, Total						5
Arsenic, Total						0.5
Barium, Total						3
Beryllium, Total						0.5
Cadmium, Total						1
Chromium, Total						3
Chromium, Hexavalent						3
Chromium, Trivalent						N/A
Copper, Total						2
Cyanide, Free						10
Lead, Total						0.5

[1] Indicate units if different than µg/L.
[2] Minimum Analytical Level

Pollutant	Effluent Concentration (µg/L)[1]					MAL[2] (µg/L)
	Samp.	Samp.	Samp.	Samp.	Average	
Mercury, Total						0.005
Nickel, Total						2
Selenium, Total						5
Silver, Total						0.5
Thallium, Total						0.5
Zinc, Total						5.0

STATEMENT OF BASIS/TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

DESCRIPTION OF APPLICATION

Applicant:	Covia Clay LLC; Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002973000 (EPA I.D. No. TX0104175)
Regulated activity:	Industrial wastewater permit
Type of application:	Major amendment without renewal
Request:	Addition a clay-lined settling pond and an associated outfall (Outfall 008) to discharge mine pit water and stormwater on an intermittent and flow-variable basis
Authority:	Federal Clean Water Act (CWA) §402; Texas Water Code (TWC) §26.027; 30 Texas Administrative Code (TAC) Chapter 305, Subchapters C-F, and Chapters 307 and 319; commission policies; and Environmental Protection Agency (EPA) guidelines

This permit action is a major amendment without renewal. Only the items pertaining to the amendment request have been revised/updated in the draft permit and Statement of Basis and addressed in the following document. The Statement of Basis for the permit issued on December 2, 2021 is still valid and is provided in Attachment 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 retains the current expiration date of December 2, 2026.

REASON FOR PROJECT PROPOSED

The applicant applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment of its existing permit. The proposed amendment would authorize to add a clay-lined settling pond and an associated new outfall (Outfall 008) to discharge mine pit water and stormwater on an intermittent and flow-variable basis.

PROJECT DESCRIPTION AND LOCATION

The applicant currently operates Covia Troup Facility, a ball clay mine.

The facility is proposing to add a settling pond (Pond 8) and associated outfall (Outfall 008). The dimensions of the settling pond are proposed to be approximately 400 feet east-west and 200 feet north-south. The settling pond will be lined with clay. Water from the mining pit that will be located south of the settling pond. Water will be treated in situ or via a baffled mixing tank with soda ash, hydrated lime or other suitable alkali to the required pH levels and then pumped via ground piping to the settling pond. The pond will be discharged via gravity flow through above ground piping directly to Caney Creek.

The facility is located approximately 3,860 feet southwest of the intersection of Farm-to-Market Road 13 and Farm-to-Market Road 856, in Cherokee County, Texas 75789.

Discharge Routes and Designated Uses
The effluents are discharged via Outfalls 001, 002, and 005 to unnamed tributaries of Hampton Creek, thence to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Striker Creek, thence to Lake Striker, thence to Striker Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment 0611 of the Neches River Basin; via Outfalls 006 and 007 to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Striker Creek, thence to Lake Striker, thence to Striker Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment 0611 of the Neches River Basin; and via Outfall 008 to an on-site pond, thence to Caney Creek, thence to Mud Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment 0611 of the Neches River Basin. The unclassified receiving water uses are minimal aquatic life use for the unnamed tributaries, limited aquatic life use for Hampton Creek, intermediate aquatic life use for Mill Creek, and high aquatic life use for Caney Creek and Mud Creek. The designated uses for Segment No. 0611 are primary contact recreation, public water supply, and high aquatic life use. The effluent limits in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and revisions.

Antidegradation Review
In accordance with Title 30 Texas Administrative Code Section 307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Caney Creek and Mud Creek, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

Endangered Species Review
The discharge from this permit is not expected to have an effect on any federal endangered or threatened aquatic or aquatic-dependent species or proposed species or their critical habitat. This determination is based on 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). To make this determination for TPDES permits, TCEQ and the EPA only considered aquatic or aquatic-dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS's biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Impaired Water Bodies
Segment No. 0611 is currently listed on the State's inventory of impaired and threatened waters, the 2022 Clean Water Act Section 303(d) list. The listing is for bacteria from the aqueduct crossing upstream to the confluence with Old River Channel in Nacogdoches County (AU 0611_01) and from a point immediately upstream of the confluence with Mud Creek (061C) upstream to confluence with Barnhardt and Mill Creeks (AUs 0611_03 & 0611_04). Mud Creek (0611C) is also currently listed for bacteria in water from the confluence with Angelina River upstream to the confluence with Prairie Creek (AUs 0611C_01 & 0611C_02). The draft permit does not authorize discharge of domestic wastewater and there is no other known source of bacteria in the effluent. Therefore, this permit action is not expected to contribute to the impairment of bacteria in the segment.

Completed Total Maximum Daily Loads (TMDLs)
There are no completed TMDLs for Segment No. 0611.

Dissolved Oxygen
Due to the low concentrations of oxygen demanding constituents expected from proposed waste streams, no significant dissolved oxygen depletion is expected in the receiving waters as a result of this proposed discharge.

SUMMARY OF EFFLUENT DATA

Self-reporting data is not available because the facility has not discharged for the proposed Outfall 008.

DRAFT PERMIT CONDITIONS

The draft permit authorizes the discharge of mine pit water and stormwater on an intermittent and flow-variable basis via Outfalls 001, 002, 005, 006, 007, and 008. Water quality-based effluent limits were developed for three tiers of discharge, which depend on instream flow of Hampton Creek at Farm-to-Market (FM) 13 in cubic feet per second (cfs). Because stream flows can change quickly, the tiered effluent limits were included in the existing permit at reporting outfalls. Effluent limits that are not tiered (i.e., are not dependent on stream flow) are placed at the external outfalls. The table below shows the relationship between the tiers and the reporting outfall numbers. No flow was reported for Outfall 006 between January 2022 and December 2023, the tiers for Outfall 006 were continued from the existing permit. No reporting were established for Outfalls 007 as it has yet to discharge and does not have any effluent limits at this time that are dependent on the flow in Hampton Creek. Outfall 008 proposes to discharge into Caney Creek which has yet to discharge or is independent of instream flow restriction.

Outfall	Reporting Outfall		
	Tier I	Tier II	Tier III
001	101	201	301
002	102	202	302
005	105	205	305
006	106	206	306

Effluent limitations are established in the draft permit as follows:

All Tiers

Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
001	Flow	Report MGD	Report MGD
	TSS	35	70
	pH	6.0 SU, min	9.0 SU
002	Flow	Report MGD	Report MGD
	TSS	35	70
	pH	6.0 SU, min	9.0 SU
005	Flow	Report MGD	Report MGD
	TSS	35	70
	pH	6.0 SU, min	9.0 SU
006	Flow	Report MGD	Report MGD
	TSS	35	70
	pH	6.0 SU, min	9.0 SU
007	Flow	Report MGD	Report MGD
	TSS	35	70
	TDS	Report	Report

All Tiers

Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
	Sulfate	Report	Report
	pH	6.0 SU, min	9.0 SU
008	Flow	Report, MGD	Report, MGD
	TSS	35	70
	pH	6.0 SU, min	9.0 SU

Tier I

Reporting Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
101	Flow	Report, MGD	Report, MGD
	River Flow	8.93 cfs, min	—
	TDS	4,000	8,480
	Sulfate	N/A	1,696
	Total Aluminum	0.834	1.765
	Total Copper	0.032	0.068
	Total Nickel	N/A	1.771
	Total Zinc	0.32	0.675
102	Flow	Report, MGD	Report, MGD
	River Flow	8.93 cfs, min	—
	TDS	Report	Report
	Sulfate	N/A	1,696
105	Flow	Report, MGD	Report, MGD
	River Flow	8.93 cfs, min	—
	TDS	Report	Report
	Sulfate	N/A	1,696
106	Flow	Report, MGD	Report, MGD
	River Flow	8.93 cfs, min	—
	TDS	Report	Report
	Sulfate	Report	1,696
	Total Aluminum	0.834	1.765
	Total Zinc	N/A	0.675

Tier II

Reporting Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
201	Flow	Report, MGD	Report, MGD
	River Flow	4.46 cfs, min	8.92 cfs
	TDS	4,000	8,480
	Sulfate	N/A	1,696
	Total Aluminum	0.857	1.814
	Total Copper	0.032	0.068
	Total Nickel	N/A	1.771
	Total Zinc	0.319	0.675
202	Flow	Report, MGD	Report, MGD
	River Flow	4.46 cfs, min	8.92 cfs
	TDS	Report	Report
	Sulfate	N/A	1,696
205	Flow	Report, MGD	Report, MGD

Tier II

Reporting Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
	River Flow	4.46 cfs, min	8.92 cfs
	TDS	Report	Report
	Sulfate	N/A	1,696
206	Flow	Report, MGD	Report, MGD
	River Flow	4.46 cfs, min	8.92 cfs
	TDS	Report	Report
	Sulfate	Report	1,696
	Total Aluminum	0.834	1.765
	Total Zinc	N/A	0.675

Tier III

Reporting Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
301	Flow	Report, MGD	Report, MGD
	River Flow	—	4.45 cfs
	TDS	346	732
	Sulfate	69	146
	Total Aluminum	0.834	1.765
	Total Copper	0.029	0.061
	Total Nickel	0.124	0.264
	Total Zinc	0.319	0.675
302	Flow	Report, MGD	Report, MGD
	River Flow	—	4.45 cfs
	TDS	343	727
	Sulfate	68	145
305	Flow	Report, MGD	Report, MGD
	River Flow	—	4.45 cfs
	TDS	347	735
	Sulfate	69	147
306	Flow	Report, MGD	Report, MGD
	River Flow	—	4.45 cfs
	TDS	343	727
	Sulfate	68	145
	Total Aluminum	0.834	1.765
	Total Zinc	0.319	0.675

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	32.096944 N	95.056334 W
002	32.111418 N	95.060001 W
005	32.104528 N	95.053611 W
006	32.125139 N	95.060277 W
007	32.103315 N	95.046195 W
008	31.899764 N	95.030663 W

Technology-Based Effluent Limitations
Regulations in Title 40 of the Code of Federal Regulations (40 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. The discharge of mining wastewater from Outfall 008 is subject to 40 CFR Part 436. The Effluent Guidelines at 40 CFR Part 436, Subpart AH (Mineral Mining and Processing Point Source Category - Ball Clay Subcategory) are reserved. Technology-based effluent limitations for TSS were revised in the 1994 permit to be consistent with the EPA's Development Document for Mineral Mining and Processing Industry (EPA 440/1-76/059a). The effluent limitations for TSS for Outfall 008 are carried forward from existing outfalls which authorize the discharge of similar types of wastewaters based on BPJ.

Water Quality-Based Effluent Limitations
Calculations of water quality-based effluent limitations for the protection of aquatic life and human health are presented in Appendix A. Aquatic life criteria established in Table 1 and human health criteria established in Table 2 of 30 TAC Chapter 307 are incorporated into the calculations, as are recommendations in the Water Quality Assessment Team's memorandum dated June 27, 2024. TCEQ practice for determining significant potential is to compare the reported analytical data from the facility 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 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

The application does not provide anticipated flow for Outfall 008. The average of all flows from existing outfalls (Outfalls 001, 002, 005, 006, and 007) during the period of April 2022 to April 2025 has been used as an alternative to calculate water quality-based limitation for Outfall 008. The screening results may be changed when data is available.

As the newly proposed Outfall 008 has not yet been constructed, analytical data is currently unavailable. Existing Other Requirement No. 9 has been revised to incorporate Outfall 008 for future testing requirements. A comparison with water quality-based limitations will be performed once analytical data becomes available.

Total Dissolved Solids (TDS), Chloride, and Sulfate Screening
As the newly proposed Outfall 008 has not yet been constructed, analytical data is currently unavailable. Existing Other Requirement No. 9 has been revised to incorporate Outfall 008 for future testing requirements. TDS, chloride, and sulfate screening will be performed once analytical data becomes available.

pH Screening
The draft permit includes pH limits of 6.0 – 9.0 SU at newly proposed Outfall 008, which discharges into an unclassified water body. Consistent with the procedures for pH screening that were submitted to EPA with a letter dated May 28, 2014, and approved by EPA in a letter dated June 2, 2014, requiring a discharge to an unclassified water body to meet pH limits of 6.0 – 9.0 standard units reasonably ensures instream compliance with *Texas Surface Water Quality Standards* pH criteria. These limits have been carried forward in the draft permit.

Whole Effluent Toxicity Testing (Biomonitoring)
The existing permit did not establish biomonitoring requirements and discharges authorized by this permit do not meet the threshold established in the *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194) to impose biomonitoring requirements.

SUMMARY OF CHANGES FROM APPLICATION

No changes were made from the application.

SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee requested the following changes in their amendment request that the Executive Director has recommended granting.

1. The applicant requested to add a clay-lined settling pond and an associated new outfall (Outfall 008) to discharge mine pit water and stormwater on an intermittent and flow-variable basis.

   A Tier 1 antidegradation review has preliminarily determined that existing water quality will not be impaired by this permit amendment action. A Tier 2 antidegradation review has preliminarily determined that no significant degradation of water qualtiy is expected in Caney Creek which is the receiving water for Outfall 008 with high aquatic life use.

The following additional changes have been made to the draft permit.

1. Pages 3-13 were updated (May 2021 version).
2. Existing Other Requirement No. 9 has been revised to incorporate the newly proposed Outfall 008 for testing requirements.
3. Existing Other Requirement Nos. 6 and 7 have been revised to incorporate the newly proposed Outfall 008.

BASIS FOR DRAFT PERMIT

The following items were considered in developing the draft permit:

1. Application received on April 17, 2024, and additional information received on May 9, 2024.
2. Existing permits: TPDES Permit No. WQ0002973000 issued on December 2, 2021.
3. TCEQ Rules.
4. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 1, 2018, as approved by EPA Region 6.
5. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.
6. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not approved by EPA Region 6.
7. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not approved by EPA Region 6.
8. *Procedures to Implement the Texas Surface Water Quality Standards* (IPs), Texas Commission on Environmental Quality, June 2010, as approved by EPA Region 6.
9. *Procedures to Implement the Texas Surface Water Quality Standards*, Texas Commission on Environmental Quality, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.
10. Memos from the Standards Implementation Team and Water Quality Assessment Team of the Water Quality Assessment Section of the TCEQ.
11. *Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits*, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.

12. EPA Effluent Guidelines: 40 CFR Part 436, Subpart AH (Reserved).
13. Consistency with the Coastal Management Plan: N/A.
14. Letter dated May 28, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for pH evaluation procedures).
15. Letter dated June 2, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for pH evaluation procedures).

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 reviewing 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 to the Chief Clerk, along with the Executive Director's preliminary decision contained in the technical summary or fact sheet. 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 hearing.

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 Ruiqiang Zong at (512) 239-4589.

Ruiqiang Zong
Ruiqiang Zong

July 30, 2025
Date

Appendix A

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:	Covia Clay LLC
TPDES Permit No.:	WQ0002973000
Outfall No.:	008
Prepared by:	RUIQIANG ZONG
Date:	July 29, 2025

DISCHARGE INFORMATION

Receiving Waterbody:	Caney Creek
Segment No.:	0611
TSS (mg/L):	8
pH (Standard Units):	6.5
Hardness (mg/L as $CaCO_3$):	38
Chloride (mg/L):	19
Effluent Flow for Aquatic Life (MGD):	7.1
Critical Low Flow [7Q2] (cfs):	0.1
% Effluent for Chronic Aquatic Life (Mixing Zone):	99.10
% Effluent for Acute Aquatic Life (ZID):	99.77
Effluent Flow for Human Health (MGD):	7.1
Harmonic Mean Flow (cfs):	0.2
% Effluent for Human Health:	98.21
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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

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	3.01	N/A	1.72	N/A	2.53	5.36
Aluminum	991	N/A	993	N/A	569	N/A	837	1770
Arsenic	340	150	627	278	359	214	315	667
Cadmium	3.3	0.125	13.5	0.51	7.8	0.39	0.58	1.22
Carbaryl	2.0	N/A	2.00	N/A	1.15	N/A	1.69	3.57
Chlordane	2.4	0.004	2.41	0.0040	1.38	0.0031	0.0046	0.0097
Chlorpyrifos	0.083	0.041	0.083	0.041	0.048	0.032	0.047	0.099
Chromium (trivalent)	258	34	1249	164	716	126	185	392
Chromium (hexavalent)	15.7	10.6	15.7	10.7	9.0	8.2	12.1	25.6
Copper	5.7	4.1	16.0	11.7	9.2	9.0	13.2	28
Cyanide (free)	45.8	10.7	45.9	10.8	26.3	8.3	12.2	25.9
4,4'-DDT	1.1	0.001	1.10	0.0010	0.632	0.0008	0.0011	0.0024
Demeton	N/A	0.1	N/A	0.101	N/A	0.078	0.114	0.242
Diazinon	0.17	0.17	0.170	0.172	0.098	0.132	0.144	0.304
Dicofol [Kelthane]	59.3	19.8	59.4	20.0	34.1	15.4	22.6	47.8
Dieldrin	0.24	0.002	0.241	0.0020	0.138	0.0016	0.0023	0.0048
Diuron	210	70	210	71	121	54	80	169
Endosulfan I (*alpha*)	0.22	0.056	0.221	0.057	0.126	0.044	0.064	0.135
Endosulfan II (*beta*)	0.22	0.056	0.221	0.057	0.126	0.044	0.064	0.135
Endosulfan sulfate	0.22	0.056	0.221	0.057	0.126	0.044	0.064	0.135
Endrin	0.086	0.002	0.086	0.0020	0.049	0.0016	0.0023	0.0048
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.010	N/A	0.008	0.011	0.024
Heptachlor	0.52	0.004	0.52	0.0040	0.299	0.0031	0.0046	0.0097
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	0.08	1.13	0.081	0.647	0.062	0.091	0.193
Lead	22	0.87	117	4.6	67	3.5	5.2	11
Malathion	N/A	0.01	N/A	0.010	N/A	0.008	0.011	0.024
Mercury	2.4	1.3	2.41	1.31	1.38	1.01	1.48	3.14
Methoxychlor	N/A	0.03	N/A	0.030	N/A	0.023	0.034	0.072
Mirex	N/A	0.001	N/A	0.0010	N/A	0.0008	0.0011	0.0024
Nickel	207	22.9	455	51	261	39	58	122
Nonylphenol	28	6.6	28.1	6.7	16.1	5.13	7.5	15.9
Parathion (ethyl)	0.065	0.013	0.065	0.013	0.037	0.010	0.015	0.031
Pentachlorophenol	5.3	4.0	5.3	4.1	3.0	3.1	4.5	9.4
Phenanthrene	30	30	30.1	30.3	17.2	23.3	25.3	53.6
Polychlorinated Biphenyls [PCBs]	2.0	0.014	2.00	0.014	1.15	0.011	0.016	0.034
Selenium	20	5	20.0	5.05	11.5	3.89	5.7	12.1
Silver	0.8	N/A	5.46	N/A	3.13	N/A	4.60	9.7
Toxaphene	0.78	0.0002	0.782	0.00020	0.448	0.00016	0.00023	0.00048
Tributyltin [TBT]	0.13	0.024	0.130	0.024	0.075	0.019	0.027	0.058
2,4,5 Trichlorophenol	136	64	136	65	78.1	49.7	73	155
Zinc	52	52	173	176	99	135	146	309

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	117.09	108.90	160.08	338.67
Aldrin	1.146E-05	1.147E-05	1.147E-04	1.17E-05	1.09E-05	1.60E-05	3.38E-05
Anthracene	1109	1317	13170	1341	1247	1833	3879
Antimony	6	1071	10710	1090.5	1014.2	1490.8	3154.0
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	591.6	550.2	808.7	1711.0
Benzidine	0.0015	0.107	1.07	0.1089	0.1013	0.1489	0.3151
Benzo(*a*)anthracene	0.024	0.025	0.25	0.025	0.024	0.035	0.074
Benzo(*a*)pyrene	0.0025	0.0025	0.025	0.0025	0.0024	0.003	0.007
Bis(chloromethyl)ether	0.0024	0.2745	2.745	0.2795	0.2599	0.382	0.808
Bis(2-chloroethyl)ether	0.60	42.83	428.3	43.61	40.56	59.62	126.13
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	7.7	7.1	10.5	22.2
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	280.0	260.4	382.8	810
Bromoform [Tribromomethane]	66.9	1060	10600	1079	1004	1476	3122
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	4.5	46	460	46.8	43.6	64.0	135.5
Chlordane	0.0025	0.0025	0.025	0.0025	0.0024	0.003	0.007
Chlorobenzene	100	2737	27370	2787	2592	3810	8060
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	186.3	173.3	254.7	538.9
Chloroform [Trichloromethane]	70	7697	76970	7837	7289	10714	22667
Chromium (hexavalent)	62	502	5020	511	475	699	1478
Chrysene	2.45	2.52	25.2	2.57	2.39	3.5	7.4
Cresols [Methylphenols]	1041	9301	93010	9470	8807	12947	27391
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.0020	0.0019	0.0028	0.0059
4,4'-DDE	0.00013	0.00013	0.0013	0.00013	0.00012	0.00018	0.0004
4,4'-DDT	0.0004	0.0004	0.004	0.0004	0.0004	0.0006	0.0012
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	262	473	4730	482	448	658	1393
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	4.317	4.015	5.902	12.49
m-Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	606	563	828	1752
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	3359	3124	4592	9715
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	2.28	2.12	3.12	6.60
1,2-Dichloroethane	5	364	3640	370.6	344.7	506.7	1072.0
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	56117.4	52189.2	76718.1	162308.4
Dichloromethane [Methylene Chloride]	5	13333	133330	13575.7	12625.4	18559.4	39265.1
1,2-Dichloropropane	5	259	2590	263.7	245.3	360.5	762.7
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	121.17	112.68	165.6	350.4
Dicofol [Kelthane]	0.30	0.30	3	0.31	0.284	0.42	0.88
Dieldrin	2.0E-05	2.0E-05	2.0E-04	2.04E-05	1.89E-05	2.78E-05	5.89E-05
2,4-Dimethylphenol	444	8436	84360	8590	7988	11743	24844
Di-*n*-Butyl Phthalate	88.9	92.4	924	94	87	129	272
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	7.97E-07	8.12E-08	7.55E-08	1.11E-07	2.35E-07
Endrin	0.02	0.02	0.2	0.020	0.019	0.028	0.059
Epichlorohydrin	53.5	2013	20130	2050	1906	2802	5928
Ethylbenzene	700	1867	18670	1901	1768	2599	5498
Ethylene Glycol	46744	1.68E+07	1.68E+08	17105864	15908454	23385427	49475291

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)*
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor	8.0E-05	0.0001	0.001	0.00010	0.00009	0.00014	0.00029
Heptachlor Epoxide	0.00029	0.00029	0.0029	0.0003	0.0003	0.0004	0.0009
Hexachlorobenzene	0.00068	0.00068	0.0068	0.0007	0.0006	0.0009	0.0020
Hexachlorobutadiene	0.21	0.22	2.2	0.224	0.208	0.306	0.65
Hexachlorocyclohexane (*alpha*)	0.0078	0.0084	0.084	0.009	0.008	0.012	0.025
Hexachlorocyclohexane (*beta*)	0.15	0.26	2.6	0.265	0.246	0.362	0.77
Hexachlorocyclohexane (*gamma*) [Lindane]	0.2	0.341	3.41	0.347	0.323	0.475	1.00
Hexachlorocyclopentadiene	10.7	11.6	116	11.8	11.0	16.1	34
Hexachloroethane	1.84	2.33	23.3	2.37	2.21	3.24	6.9
Hexachlorophene	2.05	2.90	29	2.95	2.75	4.04	8.5
4,4'-Isopropylidenediphenol [Bisphenol A]	1092	15982	159820	16273	15134	22247	47066
Lead	1.15	3.83	38.3	20.6	19.1	28.1	59.5
Mercury	0.0122	0.0122	0.122	0.012	0.012	0.017	0.036
Methoxychlor	2.92	3.0	30	3.1	2.84	4.2	8.8
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	1010061	939356	1380854	2921398
Methyl *tert*-butyl ether [MTBE]	15	10482	104820	10672.8	9925.7	14590.8	30869
Nickel	332	1140	11400	2551	2372	3487	7378
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	1907	1774	2607	5516
N-Nitrosodiethylamine	0.0037	2.1	21	2.138	1.989	2.923	6.184
N-Nitroso-di-*n*-Butylamine	0.119	4.2	42	4.276	3.977	5.846	12.37
Pentachlorobenzene	0.348	0.355	3.55	0.36	0.34	0.49	1.05
Pentachlorophenol	0.22	0.29	2.9	0.295	0.275	0.40	0.85
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.0007	0.0006	0.0009	0.0019
Pyridine	23	947	9470	964.2	896.7	1318	2789
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	0.244	0.227	0.33	0.71
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	26.83	24.95	36.68	77.6
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	285.1	265.1	389.8	824.6
Thallium	0.12	0.23	2.3	0.234	0.218	0.320	0.68
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	0.011	0.010	0.015	0.032
2,4,5-TP [Silvex]	50	369	3690	376	349	514	1087
1,1,1-Trichloroethane	200	784354	7843540	798634	742730	1091813	2309889
1,1,2-Trichloroethane	5	166	1660	169.0	157.2	231.1	488.9
Trichloroethylene [Trichloroethene]	5	71.9	719	73.2	68.1	100.1	211.7
2,4,5-Trichlorophenol	1039	1867	18670	1901	1768	2599	5498
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	16.800	15.624	22.968	48.592

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	1.77	2.15
Aluminum	586	711
Arsenic	221	268
Cadmium	0.41	0.49
Carbaryl	1.18	1.44
Chlordane	0.0032	0.0039
Chlorpyrifos	0.033	0.040
Chromium (trivalent)	130	157
Chromium (hexavalent)	8.5	10.3
Copper	9.3	11.3
Cyanide (free)	8.6	10.4
4,4'-DDT	0.0008	0.0010
Demeton	0.080	0.097
Diazinon	0.100	0.122
Dicofol [Kelthane]	15.8	19.2
Dieldrin	0.0016	0.0019
Diuron	56	68
Endosulfan I (*alpha*)	0.045	0.054
Endosulfan II (*beta*)	0.045	0.054
Endosulfan sulfate	0.045	0.054
Endrin	0.0016	0.0019
Guthion [Azinphos Methyl]	0.008	0.010
Heptachlor	0.0032	0.0039
Hexachlorocyclohexane (*gamma*) [Lindane]	0.064	0.078
Lead	3.6	4.4
Malathion	0.008	0.010
Mercury	1.04	1.26
Methoxychlor	0.024	0.029
Mirex	0.0008	0.0010
Nickel	40	49
Nonylphenol	5.28	6.4
Parathion (ethyl)	0.010	0.013
Pentachlorophenol	3.1	3.8
Phenanthrene	17.7	21.5
Polychlorinated Biphenyls [PCBs]	0.011	0.014
Selenium	4.00	4.85
Silver	3.22	3.91
Toxaphene	0.00016	0.00019
Tributyltin [TBT]	0.019	0.023
2,4,5 Trichlorophenol	51.2	62
Zinc	102	124

Human Health ***Parameter***	***70% of Daily Avg. (µg/L)***	***85% of Daily Avg. (µg/L)***
Acrylonitrile	112.06	136.07
Aldrin	1.12E-05	1.36E-05
Anthracene	1283	1558
Antimony	1043.6	1267.2
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	566.1	687.4
Benzidine	0.1043	0.1266
Benzo(*a*)anthracene	0.024	0.030
Benzo(*a*)pyrene	0.0024	0.0030
Bis(chloromethyl)ether	0.2675	0.3248
Bis(2-chloroethyl)ether	41.73	50.68
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.4	8.9
Bromodichloromethane [Dichlorobromomethane]	268.0	325.4
Bromoform [Tribromomethane]	1033	1254
Cadmium	N/A	N/A
Carbon Tetrachloride	44.8	54.4
Chlordane	0.0024	0.0030
Chlorobenzene	2667	3238
Chlorodibromomethane [Dibromochloromethane]	178.3	216.5
Chloroform [Trichloromethane]	7500	9107
Chromium (hexavalent)	489	594
Chrysene	2.46	2.98
Cresols [Methylphenols]	9063	11005
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0019	0.0024
4,4'-DDE	0.00013	0.00015
4,4'-DDT	0.0004	0.0005
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	461	560
1,2-Dibromoethane [Ethylene Dibromide]	4.131	5.017
m-Dichlorobenzene [1,3-Dichlorobenzene]	580	704
o-Dichlorobenzene [1,2-Dichlorobenzene]	3215	3903
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	2.18	2.65
1,2-Dichloroethane	354.7	430.7
1,1-Dichloroethylene [1,1-Dichloroethene]	53702.7	65210.4
Dichloromethane [Methylene Chloride]	12991.6	15775.5
1,2-Dichloropropane	252.4	306.4
1,3-Dichloropropene [1,3-Dichloropropylene]	115.95	140.8
Dicofol [Kelthane]	0.292	0.35
Dieldrin	1.95E-05	2.37E-05
2,4-Dimethylphenol	8220	9981
Di-*n*-Butyl Phthalate	90	109
Dioxins/Furans [TCDD Equivalents]	7.77E-08	9.43E-08
Endrin	0.019	0.024
Epichlorohydrin	1961	2382
Ethylbenzene	1819	2209
Ethylene Glycol	16369799	19877613
Fluoride	N/A	N/A
Heptachlor	0.00010	0.00012

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Heptachlor Epoxide	0.00028	0.00034
Hexachlorobenzene	0.0007	0.0008
Hexachlorobutadiene	0.214	0.260
Hexachlorocyclohexane (*alpha*)	0.008	0.010
Hexachlorocyclohexane (*beta*)	0.253	0.308
Hexachlorocyclohexane (*gamma*) [Lindane]	0.332	0.403
Hexachlorocyclopentadiene	11.3	13.7
Hexachloroethane	2.27	2.76
Hexachlorophene	2.83	3.43
4,4'-Isopropylidenediphenol [Bisphenol A]	15573	18910
Lead	19.7	23.9
Mercury	0.012	0.014
Methoxychlor	2.92	3.5
Methyl Ethyl Ketone	966598	1173726
Methyl *tert*-butyl ether [MTBE]	10213.6	12402.2
Nickel	2441	2964
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	1825	2216
N-Nitrosodiethylamine	2.046	2.485
N-Nitroso-di-*n*-Butylamine	4.092	4.969
Pentachlorobenzene	0.35	0.42
Pentachlorophenol	0.283	0.343
Polychlorinated Biphenyls [PCBs]	0.0006	0.0008
Pyridine	922.7	1120.5
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.234	0.284
1,1,2,2-Tetrachloroethane	25.68	31.18
Tetrachloroethylene [Tetrachloroethylene]	272.8	331.3
Thallium	0.224	0.272
Toluene	N/A	N/A
Toxaphene	0.011	0.013
2,4,5-TP [Silvex]	360	437
1,1,1-Trichloroethane	764269	928041
1,1,2-Trichloroethane	161.7	196.4
Trichloroethylene [Trichloroethene]	70.1	85.1
2,4,5-Trichlorophenol	1819	2209
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	16.077	19.523

Attachment 1
STATEMENT OF BASIS/TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021

Existing Statement of Basis/Technical Summary and Executive Director's Preliminary Decision has been carried out as Attachment 1 for this Major Amendment without Renewal Application

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021

DESCRIPTION OF APPLICATION

Applicant:	Covia Clay LLC; Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002973000 (EPA I.D. No. TX0104175)
Regulated activity:	Industrial wastewater permit
Type of application:	Renewal
Request:	Renewal without changes
Authority:	Federal Clean Water Act (CWA) §402; Texas Water Code (TWC) §26.027; 30 Texas Administrative Code (TAC) Chapter 305, Subchapters C-F, and Chapters 307 and 319; commission policies; and Environmental Protection Agency (EPA) guidelines

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 will expire at midnight, five years from the date of permit issuance according to the requirements of 30 TAC §305.127(1)(C)(i).

REASON FOR PROJECT PROPOSED

The applicant applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of its existing permit.

PROJECT DESCRIPTION AND LOCATION

The applicant currently operates Covia Troup Facility, a ball clay mine.

Mining areas are stripped of topsoil and overburden. Stormwater from the mines either flows to the pit bottoms and is pumped to treatment ponds prior to discharge (Outfalls 001 and 006) or is discharged directly from the mines after pH adjustment (Outfalls 002, 005, and 007). Wastewater to be discharged via Outfalls 001 and 006 is first treated with an alkali slurry as needed to adjust pH. This treatment occurs either *in situ* or inside a baffled mixing tank. Wastewater treated *in situ* is discharged directly from the pit. Wastewater treated via the baffled mixing tank is routed to one or more settling ponds prior to discharge. Wastewater to be discharged via Outfalls 002, 005, or 007 is pumped from the pit to a portable mixing chamber, treated with soda ash or similar substance for pH control, pumped back to the pit, and circulated in the pit until the desired pH is achieved before being discharged via hose or ditch. All discharges must be initiated by an operator either by turning on a pump or by opening a valve. Domestic wastewater is disposed of via portable toilets that are serviced by an outside company. The draft permit does not authorize the discharge of domestic wastewater.

The facility is located approximately 3,860 feet southwest of the intersection of Farm-to-Market Road 13 and Farm-to-Market Road 856, near the City of Troup, in Cherokee County, Texas 75789.

Discharge Routes and Designated Use

The effluent is discharged via Outfalls 001, 002, and 005 to unnamed tributaries of Hampton Creek, thence to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Lake Striker,

thence to Striker Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment No. 0611 of the Neches River Basin; and via Outfalls 007 and 006 to Hampton Creek, thence to Mill Creek, thence to Bowles Creek, thence to Lake Striker, thence to Striker Creek, thence to Angelina River Above Sam Rayburn Reservoir in Segment No. 0611 of the Neches River Basin. The unclassified receiving waters have minimal aquatic life use for the unnamed tributaries, limited aquatic life use for Hampton Creek, and intermediate aquatic life use for Mill Creek. The designated uses for Segment No. 0611 are primary contact recreation, public water supply, and high aquatic life use. The effluent limits in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and revisions.

Endangered Species Review

The discharge from this permit is not expected to have an effect on any federal endangered or threatened aquatic or aquatic-dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS's) biological opinion on the State of Texas authorization of the TPDES (September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and the EPA only considered aquatic or aquatic-dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS's biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Impaired Water Bodies

Segment No. 0611 is currently listed on the State's inventory of impaired and threatened waters (the 2020 Clean Water Act Section 303(d) list). The listing is for bacteria in water from the aqueduct crossing upstream to the confluence with Old River Channel in Nacogdoches County about 2.8 km downstream of County Hwy 2625 at NHD RC 12020004000039 (AU 0611_01) and from a point immediately upstream of confluence with East Fork Angelina River (0611A) upstream to confluence with Barnhardt and Mill Creeks (AU 0611_04). The draft permit does not authorize discharge of domestic wastewater, and, according to the application, the permittee does not expect *E. coli* bacteria to be present in the discharges based on facility processes. For these reasons, this permit action is not expected to contribute to the bacteria listing in the Angelina River Above Sam Rayburn Reservoir (Segment No. 0611).

Dissolved Oxygen

Due to the intermittent nature of this discharge and the low concentration of oxygen demanding constituents expected in the wastewater, no significant dissolved oxygen depletion is anticipated in the receiving waters as a result of this discharge.

SUMMARY OF EFFLUENT DATA

The following is a quantitative description of the discharge described in the monthly effluent report data for the period February 2016 through July 2021. The "Avg of Daily Avg" values presented in the following table are the average of all daily average values for the reporting period for each pollutant. The "Max of Daily Max" values presented in the following table are the individual maximum values for the reporting period for each pollutant. No discharge was reported for Outfall 007 during the period reviewed. Subsequently, data for Outfall 007 is not included in the following tables. Flows are expressed in million gallons per day (MGD). All pH values are expressed in standard units (SU).

Flow

Outfall	*Frequency*	*Average of Daily Avg, MGD*	*Maximum of Daily Max, MGD*
001	Intermittent	4.11	8.2

Outfall	*Frequency*	*Average of Daily Avg, MGD*	*Maximum of Daily Max, MGD*
002	Intermittent	5.58	8.9
005	Intermittent	5.73	15.3
006	Intermittent	6.07	7.5

Effluent Characteristics

Outfall	*Parameter*	*Average of Daily Avg, mg/L*	*Maximum of Daily Max, mg/L*
001	Total Suspended Solids (TSS)	8.6	33.2
	Total Dissolved Solids (TDS)	617	635
	Sulfate	N/A	471
	Total Aluminum	0.32	0.79
	Total Copper	0.10	0.10
	Total Nickel	N/A	0.01
	Total Zinc	0.008	0.014
	pH	6.0 SU, min	8.6 SU
002	TSS	53.9	246.0
	TDS	1,021	1,100
	Sulfate	N/A	969
	pH	6.2 SU, min	9.0 SU
005	TSS	30.0	142.0
	TDS	1,087	1,505
	Sulfate	N/A	1,100
	pH	6.1 SU, min	9.0 SU
006	TSS	53.7	282.0
	TDS	764	818
	Sulfate	519	544
	Total Aluminum	0.224	0.47
	Total Zinc	N/A	0.058
	pH	6.3 SU, min	9.0SU

Effluent limit violations documented in the monthly effluent reports are summarized in the following table.

Effluent Limitation Violations

Outfall	*Parameter*	*Date*	*Daily Avg Limit, mg/L*	*Daily Avg, mg/L*	*Daily Max Limit, mg/L*	*Daily Max, mg/L*
002	TSS	02/2016	35	89	70	89
		03/2016		47		-
		12/2017		60		-
		12/2018		138		138
		06/2019		246		246
		03/2020		42		-
		04/2021		45.5		-
005	TSS	5/2016	35	47	70	-
		12/2017		93		93
		2/2018		47		-
		12/2018		90		90
		2/2019		36.8		-

Effluent Limitation Violations

Outfall	*Parameter*	*Date*	*Daily Avg Limit, mg/L*	*Daily Avg, mg/L*	*Daily Max Limit, mg/L*	*Daily Max, mg/L*
		4/2019		42		-
		1/2020		75		142
006	TSS	5/2016	35	69	70	-
		10/2019		282		282
		1/2020		40		-

No changes have been made to the draft permit based on the self-reported TSS violations shown above. The facility discharges on an infrequent basis in response to rain events, and the violations do not indicate a specific problem with the facility's wastewater handling.

DRAFT PERMIT CONDITIONS

The draft permit authorizes the discharge of mine pit water and stormwater on an intermittent and flow-variable basis via Outfalls 001, 002, 005, 006, and 007. Water quality-based effluent limits were developed for three tiers of discharge, which depend on instream flow of Hampton Creek at Farm-to-Market (FM) 13 in cubic feet per second (cfs). Because stream flows can change quickly, the tiered effluent limits were included in the existing permit at reporting outfalls. Effluent limits that are not tiered (i.e., are not dependent on stream flow) are placed at the external outfalls. The table below shows the relationship between the tiers and the reporting outfall numbers. No reporting outfalls were established for Outfall 007 as it has yet to discharge and does not have any effluent limits at this time that are dependent on the flow in Hampton Creek.

Outfall	Reporting Outfall		
	Tier I	Tier II	Tier III
001	101	201	301
002	102	202	302
005	105	205	305
006	106	206	306

Effluent limitations are established in the draft permit as follows:

All Tiers

Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
001	Flow	Report MGD	Report MGD
	TSS	35	70
	pH	6.0 SU, min	9.0 SU
002	Flow	Report MGD	Report MGD
	TSS	35	70
	pH	6.0 SU, min	9.0 SU
005	Flow	Report MGD	Report MGD
	TSS	35	70
	pH	6.0 SU, min	9.0 SU
006	Flow	Report MGD	Report MGD
	TSS	35	70
	pH	6.0 SU, min	9.0 SU
007	Flow	Report MGD	Report MGD

All Tiers

Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
	TSS	35	70
	TDS	Report	Report
	Sulfate	Report	Report
	pH	6.0 SU, min	9.0 SU

Tier I

Reporting Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
101	Flow	Report, MGD	Report, MGD
	River Flow	8.93 cfs, min	—
	TDS	4,000	8,480
	Sulfate	N/A	1,696
	Total Aluminum	0.834	1.765
	Total Copper	0.032	0.068
	Total Nickel	N/A	1.771
	Total Zinc	0.32	0.675
102	Flow	Report, MGD	Report, MGD
	River Flow	8.93 cfs, min	—
	TDS	Report	Report
	Sulfate	N/A	1,696
105	Flow	Report, MGD	Report, MGD
	River Flow	8.93 cfs, min	—
	TDS	Report	Report
	Sulfate	N/A	1,696
106	Flow	Report, MGD	Report, MGD
	River Flow	8.93 cfs, min	—
	TDS	Report	Report
	Sulfate	Report	1,696
	Total Aluminum	0.834	1.765
	Total Zinc	N/A	0.675

Tier II

Reporting Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
201	Flow	Report, MGD	Report, MGD
	River Flow	4.46 cfs, min	8.92 cfs
	TDS	4,000	8,480
	Sulfate	N/A	1,696
	Total Aluminum	0.857	1.814
	Total Copper	0.032	0.068
	Total Nickel	N/A	1.771
	Total Zinc	0.319	0.675
202	Flow	Report, MGD	Report, MGD
	River Flow	4.46 cfs, min	8.92 cfs
	TDS	Report	Report
	Sulfate	N/A	1,696

Tier II

Reporting Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
205	Flow	Report, MGD	Report, MGD
	River Flow	4.46 cfs, min	8.92 cfs
	TDS	Report	Report
	Sulfate	N/A	1,696
206	Flow	Report, MGD	Report, MGD
	River Flow	4.46 cfs, min	8.92 cfs
	TDS	Report	Report
	Sulfate	Report	1,696
	Total Aluminum	0.834	1.765
	Total Zinc	N/A	0.675

Tier III

Reporting Outfall	*Pollutant*	*Daily Average, mg/L*	*Daily Maximum, mg/L*
301	Flow	Report, MGD	Report, MGD
	River Flow	—	4.45 cfs
	TDS	346	732
	Sulfate	69	146
	Total Aluminum	0.834	1.765
	Total Copper	0.029	0.061
	Total Nickel	0.124	0.264
	Total Zinc	0.319	0.675
302	Flow	Report, MGD	Report, MGD
	River Flow	—	4.45 cfs
	TDS	343	727
	Sulfate	68	145
305	Flow	Report, MGD	Report, MGD
	River Flow	—	4.45 cfs
	TDS	347	735
	Sulfate	69	147
306	Flow	Report, MGD	Report, MGD
	River Flow	—	4.45 cfs
	TDS	343	727
	Sulfate	68	145
	Total Aluminum	0.834	1.765
	Total Zinc	0.319	0.675

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	32.096944 N	95.056334 W
002	32.111411 N	95.060001 W
005	32.104528 N	95.053611 W
006	32.125139 N	95.060277 W
007	32.103315 N	95.046195 W

Technology-Based Effluent Limitations
Regulations promulgated in Title 40 of the Code of Federal Regulations (40 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. The Effluent Guidelines at 40 CFR Part 436, Subpart AH (Mineral Mining and Processing Point Source Category - Ball Clay Subcategory) are reserved. Technology-based effluent limitations for TSS were revised in the 1994 permit to be consistent with the EPA's *Development Document for Mineral Mining and Processing Industry* (EPA 440/1-76/059a). Daily average limits of 35 mg/L and daily maximum limits of 70 mg/L were included in the 1994 permit at Outfalls 001, 002, 004, and 005. When Outfalls 006 and 007 were added in later permits, the same TSS limits were applied. All existing TSS limits are continued from the existing permit based on EPA anti-backsliding regulations at 40 CFR Part §122.44(l). Technology-based effluent limitations for pH at Outfalls 001, 002, 005, 006, and 007, which were originally based on BPJ, are also continued from the existing permit based on EPA anti-backsliding regulations at 40 CFR Part §122.44(l).

Water Quality-Based Effluent Limitations
Calculations of water quality-based effluent limitations for the protection of aquatic life and human health are presented in Appendix A. Aquatic life criteria established in Table 1 and human health criteria established in Table 2 of 30 TAC Chapter 307 are incorporated into the calculations, as are recommendations in the Water Quality Assessment Team's memorandum dated July 15, 2021. TCEQ practice for determining significant potential is to compare the reported analytical data from the facility 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 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

The existing permit restricts discharge to periods when flow in Hampton Creek at FM 13 equals or exceeds 8.93 cfs. During last permit action, the permittee requested that tiered effluent limits be evaluated for all outfalls. Under Tier I, discharges occur only in response to storm events and would be authorized only when flow in Hampton Creek at FM 13 equals or exceeds 8.93 cfs. Under Tier II, discharges also occur only in response to storm events but would be authorized only when flow in Hampton Creek at FM 13 is less than 8.93 cfs but equals or exceeds 4.46 cfs. Under Tier III, discharges are authorized at any time, regardless of flow in Hampton Creek.

Tier I – All of the outfalls discharge very infrequently and in response to storm events; therefore, only acute aquatic life criteria were used to perform the water quality screening. Using chronic criteria or human health criteria in the screening would be inappropriate since none of the outfalls discharges for the continuous periods under which these criteria were developed. When discharges do occur, dilution is available in the normally intermittent tributaries and in Hampton Creek. Stream flows expected to be present at each outfall when Hampton Creek has 8.93 cfs flow at FM 13 were provided in the Water Quality Assessment Team memorandum dated July 15, 2021, and were used in the screening.

Tier II – All of the outfalls are still expected to discharge very infrequently and in response to storm events; therefore, only acute aquatic life criteria were used to perform the water quality screening. When discharges do occur, dilution is available in the normally intermittent tributaries and in Hampton Creek. Stream flows expected to be present at each outfall when Hampton Creek has 4.46 cfs flow at FM 13 were provided in the Water Quality Assessment Team memorandum dated July 15, 2021, and were used in the screening.

Tier III – There would be no streamflow-based restriction on discharge; therefore, screening was based on the stream characteristics. According to the Standards Development Team, Hampton Creek

is intermittent with perennial pools and supports an incidental fishery use; therefore, chronic aquatic life criteria and human health criteria are used in the screening. Stream flows and critical dilutions expected to be present at each outfall when Hampton Creek has flow less than 4.46 cfs at FM 13 were provided in the Water Quality Assessment Team memorandum dated July 15, 2021, and were used in the screening.

In lieu of hourly flow monitoring during any discharge event, the permittee shall monitor and record the flow in Hampton Creek, at the commencement of discharge from any outfall and at the completion of such discharge. The entire discharge event is subject to the limitations of the most restrictive tier applicable based on the stream flow measurements taken, regardless of the actual flow that was occurring at the time the sample was taken.

Outfall 001

Self-reported flows for the period February 2016 through July 2021 were evaluated to determine the appropriate effluent flow to use for water quality screening. The highest daily average flow during that period was 8.2 MGD, and the average of the daily average flows during that period was 4.1 MGD. These flows were used to recalculate water quality-based limits from the existing permit.

Calculated water quality-based effluent limits were compared with existing permit limits, and changes were made to the draft permit as discussed below for each reporting outfall.

Reporting Outfall 101: Calculated effluent limits for total aluminum, total copper, total nickel, and total zinc are more stringent than those in the existing permit and have been updated at reporting Outfall 101 in the draft permit. Because Outfall 001 discharges so infrequently, no compliance period has been included in the draft permit.

Reporting Outfall 201: Calculated effluent limits for total aluminum, total copper, total nickel, and total zinc are more stringent than those in the existing permit and have been included at reporting Outfall 201 in the draft permit. Because Outfall 001 discharges so infrequently, no compliance period has been included in the draft permit.

Reporting Outfall 301: Calculated daily average and daily maximum effluent limits for total aluminum, daily average limits for total nickel, and daily maximum limits for total zinc are more stringent than those in the existing permit and have been included at reporting Outfall 301 in the draft permit. Because Outfall 001 discharges so infrequently, no compliance period has been included in the draft permit.

Data submitted with the application was screened, and no additional effluent limits are needed in any of the tiers. However, only partial data was reported under table 2 of worksheet 2.0. Other Requirement No. 9.B, which requires the permittee to sample and analyze the wastewater for the remaining pollutants under table 2 from Outfall 001 upon the first discharge and submit the results to the TCEQ within 90 days of discharge, has been included in the draft permit. Flow measurement is also required. Once the information is submitted, the TCEQ will compare the results to the calculated water quality-based limits in Appendix A, and the permit may be re-opened to include any needed limits or monitoring and reporting requirements.

Outfall 002

The highest daily average flow for the last two years (July 2019 through July 2021) was 5.7 MGD, and the average of the daily average flows during that period was 4.8 MGD. Data submitted with the application was screened, and no additional effluent limits are needed in any of the tiers. However, only partial data was reported under table 2 of worksheet 2.0. Other Requirement No. 9.B, which requires the permittee to sample and analyze the wastewater for the remaining pollutants under table 2 from Outfall 002 upon the first discharge and submit the results to the TCEQ within 90 days of discharge, has been included in the draft permit. Flow measurement is also required. Once the

information is submitted, the TCEQ will compare the results to the calculated water quality-based limits in Appendix A, and the permit may be re-opened to include any needed limits or monitoring and reporting requirements.

Outfall 005
The highest daily average flow for the last two years (July 2019 through July 2021) was 9.1 MGD, and the average of the daily average flow during that period was 5.5 MGD. No data was submitted with the application, therefore, Other Requirement No. 9.A, which requires the permittee to sample and analyze the wastewater for the remaining pollutants under table 2 from Outfall 005 upon the first discharge and submit the results to the TCEQ within 90 days of discharge, has been included in the draft permit. Flow measurement is also required. Once the information is submitted, the TCEQ will compare the results to the calculated water quality-based limits in Appendix A, and the permit may be re-opened to include any needed limits or monitoring and reporting requirements.

Outfall 006
The highest daily average flow for the last two years (July 2019 through July 2021) was 7.5 MGD, and the average of the daily average flows during that period was 5.9 MGD. No data was submitted with the application, therefore, Other Requirement No. 9.A, which requires the permittee to sample and analyze wastewater from Outfall 006 upon the first discharge and submit the results to the TCEQ within 90 days of discharge, has been included in the draft permit. Flow measurement is also required. Once the information is submitted, the TCEQ will compare the results to the calculated water quality-based limits in Appendix A, and the permit may be re-opened to include any needed limits or monitoring and reporting requirements.

Calculated water quality-based effluent limits were compared with existing permit limits, and changes were made to the draft permit as discussed below for each reporting outfall.

Reporting Outfall 106: Calculated effluent limits for total aluminum (daily average and daily maximum) and total zinc (daily maximum) are more stringent than those in the existing permit and have been included at reporting Outfall 106 in the draft permit. No compliance period has been included in the draft permit for the revised total aluminum and total zinc limit.

Reporting Outfall 206: Calculated effluent limits for total aluminum and total zinc are more stringent than those in the existing permit and have been included at reporting Outfall 206 in the draft permit. Because this tier of the permit that allows discharge when flow in Hampton Creek is at least 4.46 cfs but less than 8.93 cfs, no compliance period has been included in the draft permit.

Reporting Outfall 306: Calculated effluent limits for total aluminum (daily average and daily maximum) and total zinc (daily maximum) are more stringent than those in the existing permit and have been included at reporting Outfall 306 in the draft permit. Because this tier of the permit that allows discharge when flows in Hampton Creek are less than 4.46, no compliance period has been included in the draft permit.

Outfall 007
No discharge has ever occurred via Outfall 007; therefore, there is no way to determine the appropriate effluent flow to use for water quality screening. Other Requirement No. 9.A, which requires the permittee to sample and analyze wastewater from Outfall 007 upon the first discharge and submit the results to the TCEQ within 90 days of discharge, has been continued in the draft permit. Flow measurement is also required. Once the information is submitted, the TCEQ will compare the results to the calculated water quality-based limits in Appendix A, and the permit may be re-opened to include any needed limits or monitoring and reporting requirements.

Total Dissolved Solids (TDS), Chloride, and Sulfate Screening

TDS and Sulfate

Self-reported concentrations of TDS and sulfate in the effluent from Outfalls 001, 002, 005, and 006 are greater than the segment criterion. Screening procedures and effluent limitations for TDS and sulfate are calculated using the methodology in the *Procedures to Implement the Texas Surface Water Quality Standards*, June 2010, and criteria in the *Texas Surface Water Quality Standards* (30 TAC Chapter 307). Detailed calculations are presented in Appendix B. Based on the screening, the following changes have been made to TDS and sulfate limitations in the draft permit:

Tier I – a daily maximum limit of 1,696 mg/L for sulfate has been continued at Outfall 106;

Tier II – a daily maximum limit of 1,696 mg/L for sulfate has been continued at Outfall 206;

Tier III – existing daily average and daily maximum TDS and Sulfate has been continued at 301, 302, 305, and 306 in the draft permit.

No effluent data were submitted for Outfall 007 because it has never discharged. Other Requirement No. 9.A, which requires the permittee to sample and analyze wastewater from Outfall 007 upon the first discharge and submit the results to the TCEQ within 90 days of discharge, has been continued in the draft permit. Flow measurement is also required. Once the information is submitted, the TCEQ will perform the TDS and sulfate screening if necessary, and the permit may be re-opened to include any needed limits or monitoring and reporting requirements.

Chloride

Average concentrations of chloride reported in the application for Outfalls 001 and 002 are less than the respective criteria for Segment No. 0611; therefore, no further screening is necessary. No effluent data were submitted for Outfall 005, 006, and 007 because neither has discharged recently. Other Requirement No. 9.A, which requires the permittee to sample and analyze wastewater from Outfalls 005, 006, and 007 upon the first discharge and submit the results to the TCEQ within 90 days of discharge, has been included in the draft permit. Flow measurement is also required. Once the information is submitted, the TCEQ will perform the chloride screening if necessary, and the permit may be re-opened to include any needed limits or monitoring and reporting requirements.

pH Screening

The existing permit includes limits on pH of 6.0 – 9.0 SU at Outfalls 001, 002, 005, 006, and 007, which discharge into unclassified water bodies. Consistent with the procedures for pH screening that were submitted to EPA with a letter dated May 28, 2014, and approved by EPA in a letter dated June 2, 2014, requiring these discharges to unclassified water bodies to meet pH limits of 6.0 – 9.0 standard units reasonably ensures instream compliance with *Texas Surface Water Quality Standards* pH criteria. These limits have been carried forward in the draft permit.

Whole Effluent Toxicity Testing (Biomonitoring)

Biomonitoring requirements are not included in the draft permit.

SUMMARY OF CHANGES FROM APPLICATION

1. Effluent limits on total aluminum, total copper, total nickel, and total zinc at Outfall 001 are more stringent than those in the existing permit. Because Outfall 001 discharges so infrequently, no compliance period has been included in the draft permit.

2. Effluent limits on total aluminum and total zinc at Outfall 006 are more stringent than those in the existing permit. Because Outfall 006 discharges infrequently, no compliance period has been included in the draft permit.

The following additional changes have been made to the draft permit.

1. The facility address was updated according to the information provided in the application.
2. The facility name has been updated per information provided by the permittee.
3. The standard boilerplate conditions (pages 3-13) were updated to the current version (May 2021 version).
4. The Other Requirements section (beginning on page 14) was rearranged to assist with compliance monitoring.
5. Other Requirement No. 7 has been revised to include the current language provided in the critical conditions memorandum for all mixing zone and zone of initial dilution definitions for the tiered permit.
6. Other Requirement No. 9 has been revised to require outfall-specific testing.

BASIS FOR DRAFT PERMIT

The following items were considered in developing the draft permit:

1. Application received on Feburary 12, 2021, and additional information received on March 2, June 1, and June 29, 2021.
2. Existing permits: TPDES Permit No. WQ0002973000 issued on November 21, 2016.
3. TCEQ Rules.
4. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 1, 2018, as approved by EPA Region 6.
5. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.
6. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not approved by EPA Region 6.
7. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not approved by EPA Region 6.
8. *Procedures to Implement the Texas Surface Water Quality Standards* (IPs), Texas Commission on Environmental Quality, June 2010, as approved by EPA Region 6.
9. *Procedures to Implement the Texas Surface Water Quality Standards*, Texas Commission on Environmental Quality, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.
10. Memos from the Standards Implementation Team and Water Quality Assessment Team of the Water Quality Assessment Section of the TCEQ.
11. *Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits*, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.
12. EPA Effluent Guidelines: 40 CFR Part 436, Subpart AH (Reserved). A new source determination was performed and the discharge of mine pit water and stormwater is not a new source as defined at 40 CFR § 122.2.
13. Consistency with the Coastal Management Plan: N/A

14. Letter dated May 28, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for pH evaluation procedures).
15. Letter dated June 2, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for pH evaluation procedures).

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 reviewing 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 to the chief clerk, along with the executive director's preliminary decision contained in the technical summary or fact sheet. 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 hearing.

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.

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
For additional information about this application, contact Jaspinder Singh at (512) 239-5210.

Jaspinder Singh
Jaspinder Singh

September 10, 2021
Date

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Appendix A
Calculated Water Quality-Based Effluent Limits

Tier I

TEXTOX MENU #1 - INTERMITTENT STREAM

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
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No:	WQ0002973000
Outfall No:	001 (101)
Prepared By:	Jaspinder Singh
Date:	Augus 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Unnamed tributary of Hampton Creek	
Segment No:	0611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	8.2	
Critical Low Flow [7Q2] (cfs):	1.62	
% Effluent for Acute Aquatic Life:	100	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*WLAa (µg/L)*	*LTAa (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Aldrin	3.0	3.00	1.72	2.52	5.34
Aluminum	991	991	568	834	1765
Arsenic	340	625	358	526	1114
Cadmium	8.248207	33.3	19.1	28.0	59.3
Carbaryl	2.0	2.00	1.15	1.68	3.56
Chlordane	2.4	2.40	1.38	2.02	4.27
Chlorpyrifos	0.083	0.0830	0.0476	0.0699	0.147
Chromium (trivalent)	551.0294	2662	1525	2241	4742
Chromium (hexavalent)	15.7	15.7	9.00	13.2	27.9
Copper	13.66594	38.2	21.9	32.2	68.1
Cyanide (free)	45.8	45.8	26.2	38.5	81.6
4,4'-DDT	1.1	1.10	0.630	0.926	1.96
Demeton	N/A	N/A	N/A	N/A	N/A
Diazinon	0.17	0.170	0.0974	0.143	0.302
Dicofol [Kelthane]	59.3	59.3	34.0	49.9	105
Dieldrin	0.24	0.240	0.138	0.202	0.427
Diuron	210	210	120	176	374
Endosulfan I (*alpha*)	0.22	0.220	0.126	0.185	0.392
Endosulfan II (*beta*)	0.22	0.220	0.126	0.185	0.392
Endosulfan sulfate	0.22	0.220	0.126	0.185	0.392
Endrin	0.086	0.0860	0.0493	0.0724	0.153
Guthion [Azinphos Methyl]	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.52	0.520	0.298	0.438	0.926
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	1.13	0.645	0.948	2.00
Lead	61.77208	326	187	274	580
Malathion	N/A	N/A	N/A	N/A	N/A
Mercury	2.4	2.40	1.38	2.02	4.27
Methoxychlor	N/A	N/A	N/A	N/A	N/A
Mirex	N/A	N/A	N/A	N/A	N/A
Nickel	452.3411	994	570	837	1771
Nonylphenol	28	28.0	16.0	23.5	49.8
Parathion (ethyl)	0.065	0.0650	0.0372	0.0547	0.115
Pentachlorophenol	4.773119	4.77	2.73	4.02	8.50
Phenanthrene	30	30.0	17.2	25.2	53.4
Polychlorinated Biphenyls [PCBs]	2.0	2.00	1.15	1.68	3.56
Selenium	20	20.0	11.5	16.8	35.6
Silver	0.8	5.45	3.12	4.59	9.71
Toxaphene	0.78	0.780	0.447	0.657	1.38
Tributyltin [TBT]	0.13	0.130	0.0745	0.109	0.231
2,4,5 Trichlorophenol	136	136	77.9	114	242
Zinc	113.1967	379	217	319	675

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

Aquatic Life ***Parameter***	***70% of Daily Avg. (µg/L)***	***85% of Daily Avg. (µg/L)***
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	368	447
Cadmium	19.6	23.8
Carbaryl	1.17	1.43
Chlordane	1.41	1.71
Chlorpyrifos	0.0489	0.0594
Chromium (trivalent)	1569	1905
Chromium (hexavalent)	9.25	11.2
Copper	22.5	27.3
Cyanide (free)	27.0	32.7
4,4'-DDT	0.648	0.787
Demeton	N/A	N/A
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.141	0.171
Diuron	123	150
Endosulfan I (*alpha*)	0.129	0.157
Endosulfan II (*beta*)	0.129	0.157
Endosulfan sulfate	0.129	0.157
Endrin	0.0507	0.0615
Guthion [Azinphos Methyl]	N/A	N/A
Heptachlor	0.306	0.372
Hexachlorocyclohexane (*gamma*) [Lindane]	0.663	0.806
Lead	192	233
Malathion	N/A	N/A
Mercury	1.41	1.71
Methoxychlor	N/A	N/A
Mirex	N/A	N/A
Nickel	586	711
Nonylphenol	16.5	20.0
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls [PCBs]	1.17	1.43
Selenium	11.7	14.3
Silver	3.21	3.90
Toxaphene	0.459	0.558
Tributyltin [TBT]	0.0766	0.0930
2,4,5 Trichlorophenol	80.1	97.3
Zinc	223	271

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STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Tier I

TEXTOX MENU #1 - INTERMITTENT STREAM

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
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No:	WQ0002973000
Outfall No:	002 (102)
Prepared By:	Jaspinder Singh
Date:	Augus 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Unnamed tributary of Hampton Creek	
Segment No:	0611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	5.7	
Critical Low Flow [7Q2] (cfs):	6	
% Effluent for Acute Aquatic Life:	100	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

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Lead	61.77208	326	187	274	580
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Nickel	452.3411	994	570	837	1771
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Pentachlorophenol	4.773119	4.77	2.73	4.02	8.50
Phenanthrene	30	30.0	17.2	25.2	53.4
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Cadmium	19.6	23.8
Carbaryl	1.17	1.43
Chlordane	1.41	1.71
Chlorpyrifos	0.0489	0.0594
Chromium (trivalent)	1569	1905
Chromium (hexavalent)	9.25	11.2
Copper	22.5	27.3
Cyanide (free)	27.0	32.7
4,4'-DDT	0.648	0.787
Demeton	N/A	N/A
Diazinon	0.100	0.121
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Dieldrin	0.141	0.171
Diuron	123	150
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Endosulfan II (*beta*)	0.129	0.157
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PERMIT INFORMATION

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TPDES Permit No:	WQ0002973000
Outfall No:	005 (105)
Prepared By:	Jaspinder Singh
Date:	Augus 19, 2021

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Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
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AQUATIC LIFE

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Silver	0.8	5.45	3.12	4.59	9.71
Toxaphene	0.78	0.780	0.447	0.657	1.38
Tributyltin [TBT]	0.13	0.130	0.0745	0.109	0.231
2,4,5 Trichlorophenol	136	136	77.9	114	242
Zinc	113.1967	379	217	319	675

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

Aquatic Life *Parameter*	*70% of Daily Avg. (µg/L)*	*85% of Daily Avg. (µg/L)*
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	368	447
Cadmium	19.6	23.8
Carbaryl	1.17	1.43
Chlordane	1.41	1.71
Chlorpyrifos	0.0489	0.0594
Chromium (trivalent)	1569	1905
Chromium (hexavalent)	9.25	11.2
Copper	22.5	27.3
Cyanide (free)	27.0	32.7
4,4'-DDT	0.648	0.787
Demeton	N/A	N/A
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.141	0.171
Diuron	123	150
Endosulfan I (*alpha*)	0.129	0.157
Endosulfan II (*beta*)	0.129	0.157
Endosulfan sulfate	0.129	0.157
Endrin	0.0507	0.0615
Guthion [Azinphos Methyl]	N/A	N/A
Heptachlor	0.306	0.372
Hexachlorocyclohexane (*gamma*) [Lindane]	0.663	0.806
Lead	192	233
Malathion	N/A	N/A
Mercury	1.41	1.71
Methoxychlor	N/A	N/A
Mirex	N/A	N/A
Nickel	586	711
Nonylphenol	16.5	20.0
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls [PCBs]	1.17	1.43
Selenium	11.7	14.3
Silver	3.21	3.90
Toxaphene	0.459	0.558
Tributyltin [TBT]	0.0766	0.0930
2,4,5 Trichlorophenol	80.1	97.3
Zinc	223	271

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Tier I

TEXTOX MENU #1 - INTERMITTENT STREAM

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
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No:	WQ0002973000
Outfall No:	006 (106)
Prepared By:	Jaspinder Singh
Date:	Augus 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Unnamed tributary of Hampton Creek	
Segment No:	0611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	7.5	
Critical Low Flow [7Q2] (cfs):	7.79	
% Effluent for Acute Aquatic Life:	100	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*WLAa (µg/L)*	*LTAa (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Aldrin	3.0	3.00	1.72	2.52	5.34
Aluminum	991	991	568	834	1765
Arsenic	340	625	358	526	1114
Cadmium	8.248207	33.3	19.1	28.0	59.3
Carbaryl	2.0	2.00	1.15	1.68	3.56
Chlordane	2.4	2.40	1.38	2.02	4.27
Chlorpyrifos	0.083	0.0830	0.0476	0.0699	0.147
Chromium (trivalent)	551.0294	2662	1525	2241	4742
Chromium (hexavalent)	15.7	15.7	9.00	13.2	27.9
Copper	13.66594	38.2	21.9	32.2	68.1
Cyanide (free)	45.8	45.8	26.2	38.5	81.6
4,4'-DDT	1.1	1.10	0.630	0.926	1.96
Demeton	N/A	N/A	N/A	N/A	N/A
Diazinon	0.17	0.170	0.0974	0.143	0.302
Dicofol [Kelthane]	59.3	59.3	34.0	49.9	105
Dieldrin	0.24	0.240	0.138	0.202	0.427
Diuron	210	210	120	176	374
Endosulfan I (*alpha*)	0.22	0.220	0.126	0.185	0.392
Endosulfan II (*beta*)	0.22	0.220	0.126	0.185	0.392
Endosulfan sulfate	0.22	0.220	0.126	0.185	0.392
Endrin	0.086	0.0860	0.0493	0.0724	0.153
Guthion [Azinphos Methyl]	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.52	0.520	0.298	0.438	0.926
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	1.13	0.645	0.948	2.00
Lead	61.77208	326	187	274	580
Malathion	N/A	N/A	N/A	N/A	N/A
Mercury	2.4	2.40	1.38	2.02	4.27
Methoxychlor	N/A	N/A	N/A	N/A	N/A
Mirex	N/A	N/A	N/A	N/A	N/A
Nickel	452.3411	994	570	837	1771
Nonylphenol	28	28.0	16.0	23.5	49.8
Parathion (ethyl)	0.065	0.0650	0.0372	0.0547	0.115
Pentachlorophenol	4.773119	4.77	2.73	4.02	8.50
Phenanthrene	30	30.0	17.2	25.2	53.4
Polychlorinated Biphenyls [PCBs]	2.0	2.00	1.15	1.68	3.56
Selenium	20	20.0	11.5	16.8	35.6
Silver	0.8	5.45	3.12	4.59	9.71
Toxaphene	0.78	0.780	0.447	0.657	1.38
Tributyltin [TBT]	0.13	0.130	0.0745	0.109	0.231
2,4,5 Trichlorophenol	136	136	77.9	114	242
Zinc	113.1967	379	217	319	675

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

Aquatic Life ***Parameter***	***70% of Daily Avg. (µg/L)***	***85% of Daily Avg. (µg/L)***
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	368	447
Cadmium	19.6	23.8
Carbaryl	1.17	1.43
Chlordane	1.41	1.71
Chlorpyrifos	0.0489	0.0594
Chromium (trivalent)	1569	1905
Chromium (hexavalent)	9.25	11.2
Copper	22.5	27.3
Cyanide (free)	27.0	32.7
4,4'-DDT	0.648	0.787
Demeton	N/A	N/A
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.141	0.171
Diuron	123	150
Endosulfan I (*alpha*)	0.129	0.157
Endosulfan II (*beta*)	0.129	0.157
Endosulfan sulfate	0.129	0.157
Endrin	0.0507	0.0615
Guthion [Azinphos Methyl]	N/A	N/A
Heptachlor	0.306	0.372
Hexachlorocyclohexane (*gamma*) [Lindane]	0.663	0.806
Lead	192	233
Malathion	N/A	N/A
Mercury	1.41	1.71
Methoxychlor	N/A	N/A
Mirex	N/A	N/A
Nickel	586	711
Nonylphenol	16.5	20.0
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls [PCBs]	1.17	1.43
Selenium	11.7	14.3
Silver	3.21	3.90
Toxaphene	0.459	0.558
Tributyltin [TBT]	0.0766	0.0930
2,4,5 Trichlorophenol	80.1	97.3
Zinc	223	271

TEXTOX MENU #1 - INTERMITTENT STREAM

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
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No:	WQ0002973000
Outfall No:	001 (201)
Prepared By:	Jaspinder Singh
Date:	Augus 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Unnamed tributary of Hampton Creek	
Segment No:	0611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	8.2	
Critical Low Flow [7Q2] (cfs):	0.81	
% Effluent for Acute Aquatic Life:	100	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*WLAa (µg/L)*	*LTAa (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Aldrin	3.0	3.00	1.72	2.52	5.34
Aluminum	991	991	568	834	1765
Arsenic	340	625	358	526	1114
Cadmium	8.248207	33.3	19.1	28.0	59.3
Carbaryl	2.0	2.00	1.15	1.68	3.56
Chlordane	2.4	2.40	1.38	2.02	4.27
Chlorpyrifos	0.083	0.0830	0.0476	0.0699	0.147
Chromium (trivalent)	551.0294	2662	1525	2241	4742
Chromium (hexavalent)	15.7	15.7	9.00	13.2	27.9
Copper	13.66594	38.2	21.9	32.2	68.1
Cyanide (free)	45.8	45.8	26.2	38.5	81.6
4,4'-DDT	1.1	1.10	0.630	0.926	1.96
Demeton	N/A	N/A	N/A	N/A	N/A
Diazinon	0.17	0.170	0.0974	0.143	0.302
Dicofol [Kelthane]	59.3	59.3	34.0	49.9	105
Dieldrin	0.24	0.240	0.138	0.202	0.427
Diuron	210	210	120	176	374
Endosulfan I (*alpha*)	0.22	0.220	0.126	0.185	0.392
Endosulfan II (*beta*)	0.22	0.220	0.126	0.185	0.392
Endosulfan sulfate	0.22	0.220	0.126	0.185	0.392
Endrin	0.086	0.0860	0.0493	0.0724	0.153
Guthion [Azinphos Methyl]	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.52	0.520	0.298	0.438	0.926
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	1.13	0.645	0.948	2.00
Lead	61.77208	326	187	274	580
Malathion	N/A	N/A	N/A	N/A	N/A
Mercury	2.4	2.40	1.38	2.02	4.27
Methoxychlor	N/A	N/A	N/A	N/A	N/A
Mirex	N/A	N/A	N/A	N/A	N/A
Nickel	452.3411	994	570	837	1771
Nonylphenol	28	28.0	16.0	23.5	49.8
Parathion (ethyl)	0.065	0.0650	0.0372	0.0547	0.115
Pentachlorophenol	4.773119	4.77	2.73	4.02	8.50
Phenanthrene	30	30.0	17.2	25.2	53.4
Polychlorinated Biphenyls [PCBs]	2.0	2.00	1.15	1.68	3.56
Selenium	20	20.0	11.5	16.8	35.6
Silver	0.8	5.45	3.12	4.59	9.71
Toxaphene	0.78	0.780	0.447	0.657	1.38
Tributyltin [TBT]	0.13	0.130	0.0745	0.109	0.231
2,4,5 Trichlorophenol	136	136	77.9	114	242
Zinc	113.1967	379	217	319	675

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

Aquatic Life ***Parameter***	***70% of Daily Avg. (µg/L)***	***85% of Daily Avg. (µg/L)***
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	368	447
Cadmium	19.6	23.8
Carbaryl	1.17	1.43
Chlordane	1.41	1.71
Chlorpyrifos	0.0489	0.0594
Chromium (trivalent)	1569	1905
Chromium (hexavalent)	9.25	11.2
Copper	22.5	27.3
Cyanide (free)	27.0	32.7
4,4'-DDT	0.648	0.787
Demeton	N/A	N/A
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.141	0.171
Diuron	123	150
Endosulfan I (*alpha*)	0.129	0.157
Endosulfan II (*beta*)	0.129	0.157
Endosulfan sulfate	0.129	0.157
Endrin	0.0507	0.0615
Guthion [Azinphos Methyl]	N/A	N/A
Heptachlor	0.306	0.372
Hexachlorocyclohexane (*gamma*) [Lindane]	0.663	0.806
Lead	192	233
Malathion	N/A	N/A
Mercury	1.41	1.71
Methoxychlor	N/A	N/A
Mirex	N/A	N/A
Nickel	586	711
Nonylphenol	16.5	20.0
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls [PCBs]	1.17	1.43
Selenium	11.7	14.3
Silver	3.21	3.90
Toxaphene	0.459	0.558
Tributyltin [TBT]	0.0766	0.0930
2,4,5 Trichlorophenol	80.1	97.3

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Tier II

TEXTOX MENU #1 - INTERMITTENT STREAM

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
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No:	WQ0002973000
Outfall No:	002 (202)
Prepared By:	Jaspinder Singh
Date:	Augus 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Unnamed tributary of Hampton Creek	
Segment No:	0611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	5.7	
Critical Low Flow [7Q2] (cfs):	3	
% Effluent for Acute Aquatic Life:	100	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*WLAa (µg/L)*	*LTAa (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
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Aluminum	991	991	568	834	1765
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Cyanide (free)	45.8	45.8	26.2	38.5	81.6
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Lead	61.77208	326	187	274	580
Malathion	N/A	N/A	N/A	N/A	N/A
Mercury	2.4	2.40	1.38	2.02	4.27
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Pentachlorophenol	4.773119	4.77	2.73	4.02	8.50
Phenanthrene	30	30.0	17.2	25.2	53.4
Polychlorinated Biphenyls [PCBs]	2.0	2.00	1.15	1.68	3.56
Selenium	20	20.0	11.5	16.8	35.6
Silver	0.8	5.45	3.12	4.59	9.71
Toxaphene	0.78	0.780	0.447	0.657	1.38
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Aluminum	584	709
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Cadmium	19.6	23.8
Carbaryl	1.17	1.43
Chlordane	1.41	1.71
Chlorpyrifos	0.0489	0.0594
Chromium (trivalent)	1569	1905
Chromium (hexavalent)	9.25	11.2
Copper	22.5	27.3
Cyanide (free)	27.0	32.7
4,4'-DDT	0.648	0.787
Demeton	N/A	N/A
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.141	0.171
Diuron	123	150
Endosulfan I (*alpha*)	0.129	0.157
Endosulfan II (*beta*)	0.129	0.157
Endosulfan sulfate	0.129	0.157
Endrin	0.0507	0.0615
Guthion [Azinphos Methyl]	N/A	N/A
Heptachlor	0.306	0.372
Hexachlorocyclohexane (*gamma*) [Lindane]	0.663	0.806
Lead	192	233
Malathion	N/A	N/A
Mercury	1.41	1.71
Methoxychlor	N/A	N/A
Mirex	N/A	N/A
Nickel	586	711
Nonylphenol	16.5	20.0
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls [PCBs]	1.17	1.43
Selenium	11.7	14.3
Silver	3.21	3.90
Toxaphene	0.459	0.558
Tributyltin [TBT]	0.0766	0.0930
2,4,5 Trichlorophenol	80.1	97.3
Zinc	223	271

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Tier II

TEXTOX MENU #1 - INTERMITTENT STREAM

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
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No:	WQ0002973000
Outfall No:	005 (205)
Prepared By:	Jaspinder Singh
Date:	Augus 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Unnamed tributary of Hampton Creek	
Segment No:	0611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	9.1	
Critical Low Flow [7Q2] (cfs):	0.46	
% Effluent for Acute Aquatic Life:	100	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*WLAa (µg/L)*	*LTAa (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Aldrin	3.0	3.00	1.72	2.52	5.34
Aluminum	991	991	568	834	1765
Arsenic	340	625	358	526	1114
Cadmium	8.248207	33.3	19.1	28.0	59.3
Carbaryl	2.0	2.00	1.15	1.68	3.56
Chlordane	2.4	2.40	1.38	2.02	4.27
Chlorpyrifos	0.083	0.0830	0.0476	0.0699	0.147
Chromium (trivalent)	551.0294	2662	1525	2241	4742
Chromium (hexavalent)	15.7	15.7	9.00	13.2	27.9
Copper	13.66594	38.2	21.9	32.2	68.1
Cyanide (free)	45.8	45.8	26.2	38.5	81.6
4,4'-DDT	1.1	1.10	0.630	0.926	1.96
Demeton	N/A	N/A	N/A	N/A	N/A
Diazinon	0.17	0.170	0.0974	0.143	0.302
Dicofol [Kelthane]	59.3	59.3	34.0	49.9	105
Dieldrin	0.24	0.240	0.138	0.202	0.427
Diuron	210	210	120	176	374
Endosulfan I (*alpha*)	0.22	0.220	0.126	0.185	0.392
Endosulfan II (*beta*)	0.22	0.220	0.126	0.185	0.392
Endosulfan sulfate	0.22	0.220	0.126	0.185	0.392
Endrin	0.086	0.0860	0.0493	0.0724	0.153
Guthion [Azinphos Methyl]	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.52	0.520	0.298	0.438	0.926
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	1.13	0.645	0.948	2.00
Lead	61.77208	326	187	274	580
Malathion	N/A	N/A	N/A	N/A	N/A
Mercury	2.4	2.40	1.38	2.02	4.27
Methoxychlor	N/A	N/A	N/A	N/A	N/A
Mirex	N/A	N/A	N/A	N/A	N/A
Nickel	452.3411	994	570	837	1771
Nonylphenol	28	28.0	16.0	23.5	49.8
Parathion (ethyl)	0.065	0.0650	0.0372	0.0547	0.115
Pentachlorophenol	4.773119	4.77	2.73	4.02	8.50
Phenanthrene	30	30.0	17.2	25.2	53.4
Polychlorinated Biphenyls [PCBs]	2.0	2.00	1.15	1.68	3.56
Selenium	20	20.0	11.5	16.8	35.6
Silver	0.8	5.45	3.12	4.59	9.71
Toxaphene	0.78	0.780	0.447	0.657	1.38
Tributyltin [TBT]	0.13	0.130	0.0745	0.109	0.231
2,4,5 Trichlorophenol	136	136	77.9	114	242
Zinc	113.1967	379	217	319	675

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

Aquatic Life ***Parameter***	***70% of Daily Avg. (µg/L)***	***85% of Daily Avg. (µg/L)***
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	368	447
Cadmium	19.6	23.8
Carbaryl	1.17	1.43
Chlordane	1.41	1.71
Chlorpyrifos	0.0489	0.0594
Chromium (trivalent)	1569	1905
Chromium (hexavalent)	9.25	11.2
Copper	22.5	27.3
Cyanide (free)	27.0	32.7
4,4'-DDT	0.648	0.787
Demeton	N/A	N/A
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.141	0.171
Diuron	123	150
Endosulfan I (*alpha*)	0.129	0.157
Endosulfan II (*beta*)	0.129	0.157
Endosulfan sulfate	0.129	0.157
Endrin	0.0507	0.0615
Guthion [Azinphos Methyl]	N/A	N/A
Heptachlor	0.306	0.372
Hexachlorocyclohexane (*gamma*) [Lindane]	0.663	0.806
Lead	192	233
Malathion	N/A	N/A
Mercury	1.41	1.71
Methoxychlor	N/A	N/A
Mirex	N/A	N/A
Nickel	586	711
Nonylphenol	16.5	20.0
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls [PCBs]	1.17	1.43
Selenium	11.7	14.3
Silver	3.21	3.90
Toxaphene	0.459	0.558
Tributyltin [TBT]	0.0766	0.0930
2,4,5 Trichlorophenol	80.1	97.3
Zinc	223	271

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Tier II

TEXTOX MENU #1 - INTERMITTENT STREAM

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
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No:	WQ0002973000
Outfall No:	006 (206)
Prepared By:	Jaspinder Singh
Date:	Augus 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Unnamed tributary of Hampton Creek	
Segment No:	0611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	7.5	
Critical Low Flow [7Q2] (cfs):	3.89	
% Effluent for Acute Aquatic Life:	100	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*WLAa (µg/L)*	*LTAa (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Aldrin	3.0	3.00	1.72	2.52	5.34
Aluminum	991	991	568	834	1765
Arsenic	340	625	358	526	1114
Cadmium	8.248207	33.3	19.1	28.0	59.3
Carbaryl	2.0	2.00	1.15	1.68	3.56
Chlordane	2.4	2.40	1.38	2.02	4.27
Chlorpyrifos	0.083	0.0830	0.0476	0.0699	0.147
Chromium (trivalent)	551.0294	2662	1525	2241	4742
Chromium (hexavalent)	15.7	15.7	9.00	13.2	27.9
Copper	13.66594	38.2	21.9	32.2	68.1
Cyanide (free)	45.8	45.8	26.2	38.5	81.6
4,4'-DDT	1.1	1.10	0.630	0.926	1.96
Demeton	N/A	N/A	N/A	N/A	N/A
Diazinon	0.17	0.170	0.0974	0.143	0.302
Dicofol [Kelthane]	59.3	59.3	34.0	49.9	105
Dieldrin	0.24	0.240	0.138	0.202	0.427
Diuron	210	210	120	176	374
Endosulfan I (*alpha*)	0.22	0.220	0.126	0.185	0.392
Endosulfan II (*beta*)	0.22	0.220	0.126	0.185	0.392
Endosulfan sulfate	0.22	0.220	0.126	0.185	0.392
Endrin	0.086	0.0860	0.0493	0.0724	0.153
Guthion [Azinphos Methyl]	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.52	0.520	0.298	0.438	0.926
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	1.13	0.645	0.948	2.00
Lead	61.77208	326	187	274	580
Malathion	N/A	N/A	N/A	N/A	N/A
Mercury	2.4	2.40	1.38	2.02	4.27
Methoxychlor	N/A	N/A	N/A	N/A	N/A
Mirex	N/A	N/A	N/A	N/A	N/A
Nickel	452.3411	994	570	837	1771
Nonylphenol	28	28.0	16.0	23.5	49.8
Parathion (ethyl)	0.065	0.0650	0.0372	0.0547	0.115
Pentachlorophenol	4.773119	4.77	2.73	4.02	8.50
Phenanthrene	30	30.0	17.2	25.2	53.4
Polychlorinated Biphenyls [PCBs]	2.0	2.00	1.15	1.68	3.56
Selenium	20	20.0	11.5	16.8	35.6
Silver	0.8	5.45	3.12	4.59	9.71
Toxaphene	0.78	0.780	0.447	0.657	1.38
Tributyltin [TBT]	0.13	0.130	0.0745	0.109	0.231
2,4,5 Trichlorophenol	136	136	77.9	114	242
Zinc	113.1967	379	217	319	675

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

Aquatic Life ***Parameter***	***70% of Daily Avg. (µg/L)***	***85% of Daily Avg. (µg/L)***
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	368	447
Cadmium	19.6	23.8
Carbaryl	1.17	1.43
Chlordane	1.41	1.71
Chlorpyrifos	0.0489	0.0594
Chromium (trivalent)	1569	1905
Chromium (hexavalent)	9.25	11.2
Copper	22.5	27.3
Cyanide (free)	27.0	32.7
4,4'-DDT	0.648	0.787
Demeton	N/A	N/A
Diazinon	0.100	0.121
Dicofol [Kelthane]	34.9	42.4
Dieldrin	0.141	0.171
Diuron	123	150
Endosulfan I (*alpha*)	0.129	0.157
Endosulfan II (*beta*)	0.129	0.157
Endosulfan sulfate	0.129	0.157
Endrin	0.0507	0.0615
Guthion [Azinphos Methyl]	N/A	N/A
Heptachlor	0.306	0.372
Hexachlorocyclohexane (*gamma*) [Lindane]	0.663	0.806
Lead	192	233
Malathion	N/A	N/A
Mercury	1.41	1.71
Methoxychlor	N/A	N/A
Mirex	N/A	N/A
Nickel	586	711
Nonylphenol	16.5	20.0
Parathion (ethyl)	0.0383	0.0465
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls [PCBs]	1.17	1.43
Selenium	11.7	14.3
Silver	3.21	3.90
Toxaphene	0.459	0.558
Tributyltin [TBT]	0.0766	0.0930
2,4,5 Trichlorophenol	80.1	97.3
Zinc	223	271

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Tier III

TEXTOX MENU #7 - INTERMITTENT STREAM WITH PERENNIAL POOLS

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, Incidental Fishery
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No.:	WQ0002973000
Outfall No.:	001 (301)
Prepared by:	Jaspinder Singh
Date:	August 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Hampton Creek	
Segment No.:	611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved September 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	8.2	
Critical Low Flow [7Q2] (cfs):	0	
% Effluent for Chronic Aquatic Life:	100	
% Effluent for Acute Aquatic Life:	100	
Effluent Flow for Human Health (MGD):	4.3	
Harmonic Mean Flow (cfs):	0.1	
% Effluent for Human Health:	98.519	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

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	3.00	N/A	1.72	N/A	2.52	5.34
Aluminum	991	N/A	991	N/A	568	N/A	834	1765
Arsenic	340	150	625	276	358	212	312	660
Cadmium	8.2	0.239	33.3	0.966	19.1	0.743	1.09	2.31
Carbaryl	2.0	N/A	2.00	N/A	1.15	N/A	1.68	3.56
Chlordane	2.4	0.004	2.40	0.00400	1.38	0.00308	0.00452	0.00957
Chlorpyrifos	0.083	0.041	0.0830	0.0410	0.0476	0.0316	0.0464	0.0981
Chromium (+3)	551	72	2662	346	1525	267	391	829
Chromium (+6)	15.7	10.6	15.7	10.6	9.00	8.16	11.9	25.3
Copper	13.7	9.1	38.2	25.6	21.9	19.7	28.9	61.2
Cyanide (free)	45.8	10.7	45.8	10.7	26.2	8.24	12.1	25.6
4,4'-DDT	1.1	0.001	1.10	0.00100	0.630	0.000770	0.00113	0.00239
Demeton	N/A	0.1	N/A	0.100	N/A	0.0770	0.113	0.239
Diazinon	0.17	0.17	0.170	0.170	0.0974	0.131	0.143	0.302
Dicofol	59.3	19.8	59.3	19.8	34.0	15.2	22.4	47.4
Dieldrin	0.24	0.002	0.240	0.00200	0.138	0.00154	0.00226	0.00478
Diuron	210	70	210	70.0	120	53.9	79.2	167
Endosulfan I (alpha)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan II (beta)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan sulfate	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endrin	0.086	0.002	0.0860	0.00200	0.0493	0.00154	0.00226	0.00478
Guthion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Heptachlor	0.52	0.004	0.520	0.00400	0.298	0.00308	0.00452	0.00957
Hexachlorocyclohexane (Lindane)	1.126	0.08	1.13	0.0800	0.645	0.0616	0.0905	0.191
Lead	62	2.41	326	12.7	187	9.77	14.3	30.3
Malathion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Mercury	2.4	1.3	2.40	1.30	1.38	1.00	1.47	3.11
Methoxychlor	N/A	0.03	N/A	0.0300	N/A	0.0231	0.0339	0.0718
Mirex	N/A	0.001	N/A	0.00100	N/A	0.000770	0.00113	0.00239
Nickel	452	50.2	994	110	570	85.0	124	264
Nonylphenol	28	6.6	28.0	6.60	16.0	5.08	7.47	15.8
Parathion (ethyl)	0.065	0.013	0.0650	0.0130	0.0372	0.0100	0.0147	0.0311
Pentachlorophenol	4.8	3.7	4.77	3.66	2.73	2.82	4.02	8.50
Phenanthrene	30	30	30.0	30.0	17.2	23.1	25.2	53.4
Polychlorinated Biphenyls (PCBs)	2.0	0.014	2.00	0.0140	1.15	0.0108	0.0158	0.0335
Selenium	20	5	20.0	5.00	11.5	3.85	5.65	11.9
Silver	0.8	N/A	5.45	N/A	3.12	N/A	4.59	9.71
Toxaphene	0.78	0.0002	0.780	0.000200	0.447	0.000154	0.000226	0.000478
Tributyltin (TBT)	0.13	0.024	0.130	0.0240	0.0745	0.0185	0.0271	0.0574
2,4,5 Trichlorophenol	136	64	136	64.0	77.9	49.3	72.4	153
Zinc	113	114	379	382	217	294	319	675

HUMAN HEALTH (APPLIES FOR INCIDENTAL FRESHWATER FISH TISSUE)

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1150	1167	1086	1595	3376
Aldrin	1.147E-04	0.000116	0.000108	0.000159	0.000336
Anthracene	13170	13368	12432	18275	38664
Antimony	10710	10871	10110	14861	31442
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	5810	5897	5485	8062	17056
Benzidine	1.07	1.09	1.01	1.48	3.14
Benzo(*a*)anthracene	0.25	0.254	0.236	0.346	0.733
Benzo(*a*)pyrene	0.025	0.0254	0.0236	0.0346	0.0733
Bis(chloromethyl)ether	2.745	2.79	2.59	3.80	8.05
Bis(2-chloroethyl)ether	428.3	435	404	594	1257
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	75.5	76.6	71.3	104	221
Bromodichloromethane [Dichlorobromomethane]	2750	2791	2596	3816	8073
Bromoform [Tribromomethane]	10600	10759	10006	14709	31119
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	460	467	434	638	1350
Chlordane	0.025	0.0254	0.0236	0.0346	0.0733
Chlorobenzene	27370	27781	25837	37979	80352
Chlorodibromomethane [Dibromochloromethane]	1830	1858	1727	2539	5372
Chloroform [Trichloromethane]	76970	78127	72658	106807	225966
Chromium (hexavalent)	5020	5095	4739	6965	14737
Chrysene	25.2	25.6	23.8	34.9	73.9
Cresols [Methylphenols]	93010	94408	87799	129065	273056
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.02	0.0203	0.0189	0.0277	0.0587
4,4'-DDE	0.0013	0.00132	0.00123	0.00180	0.00381
4,4'-DDT	0.004	0.00406	0.00378	0.00555	0.0117
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	4730	4801	4465	6563	13886
1,2-Dibromoethane [Ethylene Dibromide]	42.4	43.0	40.0	58.8	124
m-Dichlorobenzene [1,3-Dichlorobenzene]	5950	6039	5617	8256	17467
o-Dichlorobenzene [1,2-Dichlorobenzene]	32990	33486	31142	45778	96851
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	22.4	22.7	21.1	31.0	65.7
1,2-Dichloroethane	3640	3695	3436	5051	10686
1,1-Dichloroethylene [1,1-Dichloroethene]	551140	559424	520264	764788	1618022
Dichloromethane [Methylene Chloride]	133330	135334	125861	185015	391426
1,2-Dichloropropane	2590	2629	2445	3594	7603
1,3-Dichloropropene [1,3-Dichloropropylene]	1190	1208	1123	1651	3493
Dicofol [Kelthane]	3	3.05	2.83	4.16	8.80
Dieldrin	2.0E-04	0.000203	0.000189	0.000277	0.000587
2,4-Dimethylphenol	84360	85628	79634	117062	247661
Di-*n*-Butyl Phthalate	924	938	872	1282	2712
Dioxins/Furans [TCDD Equivalents]	7.97E-07	8.09E-07	7.52E-07	0.0000011	0.0000023
Endrin	0.2	0.203	0.189	0.277	0.587
Epichlorohydrin	20130	20433	19002	27933	59097
Ethylbenzene	18670	18951	17624	25907	54810
Ethylene Glycol	1.68E+08	170525157	158588396	233124942	493209912

Parameter	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.001	0.00102	0.000944	0.00138	0.00293
Heptachlor Epoxide	0.0029	0.00294	0.00274	0.00402	0.00851
Hexachlorobenzene	0.0068	0.00690	0.00642	0.00943	0.0199
Hexachlorobutadiene	2.2	2.23	2.08	3.05	6.45
Hexachlorocyclohexane (*alpha*)	0.084	0.0853	0.0793	0.116	0.246
Hexachlorocyclohexane (*beta*)	2.6	2.64	2.45	3.60	7.63
Hexachlorocyclohexane (*gamma*) [Lindane]	3.41	3.46	3.22	4.73	10.0
Hexachlorocyclopentadiene	116	118	110	160	340
Hexachloroethane	23.3	23.7	22.0	32.3	68.4
Hexachlorophene	29	29.4	27.4	40.2	85.1
4,4'-Isopropylidenediphenol [Bisphenol A]	159820	162222	150867	221773	469195
Lead	38.3	205	191	280	592
Mercury	0.122	0.124	0.115	0.169	0.358
Methoxychlor	30	30.5	28.3	41.6	88.0
Methyl Ethyl Ketone	9.92E+06	10069105	9364267	13765472	29122871
Methyl *tert*-butyl ether [MTBE]	104820	106396	98948	145453	307727
Nickel	11400	25430	23650	34764	73550
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	18730	19012	17681	25990	54987
N-Nitrosodiethylamine	21	21.3	19.8	29.1	61.6
N-Nitroso-di-*n*-Butylamine	42	42.6	39.6	58.2	123
Pentachlorobenzene	3.55	3.60	3.35	4.92	10.4
Pentachlorophenol	2.9	2.94	2.74	4.02	8.51
Polychlorinated Biphenyls [PCBs]	6.40E-03	0.00650	0.00604	0.00888	0.0187
Pyridine	9470	9612	8939	13141	27801
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.4	2.44	2.27	3.33	7.04
1,1,2,2-Tetrachloroethane	263.5	267	249	365	773
Tetrachloroethylene [Tetrachloroethylene]	2800	2842	2643	3885	8220
Thallium	2.3	2.33	2.17	3.19	6.75
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.11	0.112	0.104	0.152	0.322
2,4,5-TP [Silvex]	3690	3745	3483	5120	10833
1,1,1-Trichloroethane	7843540	7961434	7404134	10884076	23026855
1,1,2-Trichloroethane	1660	1685	1567	2303	4873
Trichloroethylene [Trichloroethene]	719	730	679	997	2110
2,4,5-Trichlorophenol	18670	18951	17624	25907	54810
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	165	167	156	228	484

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	1.76	2.14
Aluminum	584	709
Arsenic	218	265
Cadmium	0.765	0.928
Carbaryl	1.17	1.43
Chlordane	0.00316	0.00384
Chlorpyrifos	0.0324	0.0394
Chromium (+3)	274	333
Chromium (+6)	8.39	10.1
Copper	20.2	24.6
Cyanide (free)	8.47	10.2
4,4'-DDT	0.000792	0.000962
Demeton	0.0792	0.0962
Diazinon	0.100	0.121
Dicofol	15.6	19.0
Dieldrin	0.00158	0.00192
Diuron	55.4	67.3
Endosulfan (alpha)	0.0443	0.0538
Endosulfan (beta)	0.0443	0.0538
Endosulfan sulfate	0.0443	0.0538
Endrin	0.00158	0.00192
Guthion	0.00792	0.00962
Heptachlor	0.00316	0.00384
Hexachlorocyclohexane (Lindane)	0.0633	0.0769
Lead	10.0	12.2
Malathion	0.00792	0.00962
Mercury	1.03	1.25
Methoxychlor	0.0237	0.0288
Mirex	0.000792	0.000962
Nickel	87.4	106
Nonylphenol	5.22	6.34
Parathion (ethyl)	0.0103	0.0125
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls (PCBs)	0.0110	0.0134
Selenium	3.96	4.81
Silver	3.21	3.90
Toxaphene	0.000158	0.000192
Tributyltin (TBT)	0.0190	0.0230
2,4,5 Trichlorophenol	50.7	61.5
Zinc	223	271

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	1117	1356
Aldrin	0.000111	0.000135
Anthracene	12792	15534
Antimony	10403	12632
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	5643	6852
Benzidine	1.03	1.26
Benzo(*a*)anthracene	0.242	0.294
Benzo(*a*)pyrene	0.0242	0.0294
Bis(chloromethyl)ether	2.66	3.23
Bis(2-chloroethyl)ether	416	505
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	73.3	89.0
Bromodichloromethane [Dichlorobromomethane]	2671	3243
Bromoform [Tribromomethane]	10296	12502
Cadmium	N/A	N/A
Carbon Tetrachloride	446	542
Chlordane	0.0242	0.0294
Chlorobenzene	26585	32282
Chlorodibromomethane [Dibromochloromethane]	1777	2158
Chloroform [Trichloromethane]	74765	90786
Chromium (hexavalent)	4876	5921
Chrysene	24.4	29.7
Cresols [Methylphenols]	90345	109705
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0194	0.0235
4,4'-DDE	0.00126	0.00153
4,4'-DDT	0.00388	0.00471
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	4594	5579
1,2-Dibromoethane [Ethylene Dibromide]	41.1	50.0
m-Dichlorobenzene [1,3-Dichlorobenzene]	5779	7018
o-Dichlorobenzene [1,2-Dichlorobenzene]	32044	38911
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	21.7	26.4
1,2-Dichloroethane	3535	4293
1,1-Dichloroethylene [1,1-Dichloroethene]	535352	650070
Dichloromethane [Methylene Chloride]	129510	157262
1,2-Dichloropropane	2515	3054
1,3-Dichloropropene [1,3-Dichloropropylene]	1155	1403
Dicofol [Kelthane]	2.91	3.53
Dieldrin	0.000194	0.000235
2,4-Dimethylphenol	81943	99502
Di-*n*-Butyl Phthalate	897	1089
Dioxins/Furans [TCDD Equivalents]	7.74E-07	9.40E-07
Endrin	0.194	0.235
Epichlorohydrin	19553	23743
Ethylbenzene	18135	22021
Ethylene Glycol	163187459	198156201
Fluoride	N/A	N/A
Heptachlor	0.000971	0.00117

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Heptachlor Epoxide	0.00281	0.00342
Hexachlorobenzene	0.00660	0.00802
Hexachlorobutadiene	2.13	2.59
Hexachlorocyclohexane (*alpha*)	0.0815	0.0990
Hexachlorocyclohexane (*beta*)	2.52	3.06
Hexachlorocyclohexane (*gamma*) [Lindane]	3.31	4.02
Hexachlorocyclopentadiene	112	136
Hexachloroethane	22.6	27.4
Hexachlorophene	28.1	34.2
4,4'-Isopropylidenediphenol [Bisphenol A]	155241	188507
Lead	196	238
Mercury	0.118	0.143
Methoxychlor	29.1	35.3
Methyl Ethyl Ketone	9635830	11700651
Methyl *tert*-butyl ether [MTBE]	101817	123635
Nickel	24335	29550
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	18193	22092
N-Nitrosodiethylamine	20.3	24.7
N-Nitroso-di-*n*-Butylamine	40.7	49.5
Pentachlorobenzene	3.44	4.18
Pentachlorophenol	2.81	3.42
Polychlorinated Biphenyls [PCBs]	0.00621	0.00754
Pyridine	9198	11169
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.33	2.83
1,1,2,2-Tetrachloroethane	255	310
Tetrachloroethylene [Tetrachloroethylene]	2719	3302
Thallium	2.23	2.71
Toluene	N/A	N/A
Toxaphene	0.106	0.129
2,4,5-TP [Silvex]	3584	4352
1,1,1-Trichloroethane	7618853	9251464
1,1,2-Trichloroethane	1612	1957
Trichloroethylene [Trichloroethene]	698	848
2,4,5-Trichlorophenol	18135	22021
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	160	194

Attachment 1

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021

Tier III

TEXTOX MENU #7 - INTERMITTENT STREAM WITH PERENNIAL POOLS

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, Incidental Fishery
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No.:	WQ0002973000
Outfall No.:	002 (302)
Prepared by:	Jaspinder Singh
Date:	August 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Hampton Creek	
Segment No.:	611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved September 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	5.7	
Critical Low Flow [7Q2] (cfs):	0	
% Effluent for Chronic Aquatic Life:	100	
% Effluent for Acute Aquatic Life:	100	
Effluent Flow for Human Health (MGD):	4.8	
Harmonic Mean Flow (cfs):	0.1	
% Effluent for Human Health:	98.671	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

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	3.00	N/A	1.72	N/A	2.52	5.34
Aluminum	991	N/A	991	N/A	568	N/A	834	1765
Arsenic	340	150	625	276	358	212	312	660
Cadmium	8.2	0.239	33.3	0.966	19.1	0.743	1.09	2.31
Carbaryl	2.0	N/A	2.00	N/A	1.15	N/A	1.68	3.56
Chlordane	2.4	0.004	2.40	0.00400	1.38	0.00308	0.00452	0.00957
Chlorpyrifos	0.083	0.041	0.0830	0.0410	0.0476	0.0316	0.0464	0.0981
Chromium (+3)	551	72	2662	346	1525	267	391	829
Chromium (+6)	15.7	10.6	15.7	10.6	9.00	8.16	11.9	25.3
Copper	13.7	9.1	38.2	25.6	21.9	19.7	28.9	61.2
Cyanide (free)	45.8	10.7	45.8	10.7	26.2	8.24	12.1	25.6
4,4'-DDT	1.1	0.001	1.10	0.00100	0.630	0.000770	0.00113	0.00239
Demeton	N/A	0.1	N/A	0.100	N/A	0.0770	0.113	0.239
Diazinon	0.17	0.17	0.170	0.170	0.0974	0.131	0.143	0.302
Dicofol	59.3	19.8	59.3	19.8	34.0	15.2	22.4	47.4
Dieldrin	0.24	0.002	0.240	0.00200	0.138	0.00154	0.00226	0.00478
Diuron	210	70	210	70.0	120	53.9	79.2	167
Endosulfan I (alpha)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan II (beta)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan sulfate	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endrin	0.086	0.002	0.0860	0.00200	0.0493	0.00154	0.00226	0.00478
Guthion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Heptachlor	0.52	0.004	0.520	0.00400	0.298	0.00308	0.00452	0.00957
Hexachlorocyclohexane (Lindane)	1.126	0.08	1.13	0.0800	0.645	0.0616	0.0905	0.191
Lead	62	2.41	326	12.7	187	9.77	14.3	30.3
Malathion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Mercury	2.4	1.3	2.40	1.30	1.38	1.00	1.47	3.11
Methoxychlor	N/A	0.03	N/A	0.0300	N/A	0.0231	0.0339	0.0718
Mirex	N/A	0.001	N/A	0.00100	N/A	0.000770	0.00113	0.00239
Nickel	452	50.2	994	110	570	85.0	124	264
Nonylphenol	28	6.6	28.0	6.60	16.0	5.08	7.47	15.8
Parathion (ethyl)	0.065	0.013	0.0650	0.0130	0.0372	0.0100	0.0147	0.0311
Pentachlorophenol	4.8	3.7	4.77	3.66	2.73	2.82	4.02	8.50
Phenanthrene	30	30	30.0	30.0	17.2	23.1	25.2	53.4
Polychlorinated Biphenyls (PCBs)	2.0	0.014	2.00	0.0140	1.15	0.0108	0.0158	0.0335
Selenium	20	5	20.0	5.00	11.5	3.85	5.65	11.9
Silver	0.8	N/A	5.45	N/A	3.12	N/A	4.59	9.71
Toxaphene	0.78	0.0002	0.780	0.000200	0.447	0.000154	0.000226	0.000478
Tributyltin (TBT)	0.13	0.024	0.130	0.0240	0.0745	0.0185	0.0271	0.0574
2,4,5 Trichlorophenol	136	64	136	64.0	77.9	49.3	72.4	153
Zinc	113	114	379	382	217	294	319	675

HUMAN HEALTH (APPLIES FOR INCIDENTAL FRESHWATER FISH TISSUE)

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1150	1165	1084	1593	3370
Aldrin	1.147E-04	0.000116	0.000108	0.000158	0.000336
Anthracene	13170	13347	12413	18247	38604
Antimony	10710	10854	10094	14838	31393
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	5810	5888	5476	8049	17030
Benzidine	1.07	1.08	1.01	1.48	3.13
Benzo(*a*)anthracene	0.25	0.253	0.236	0.346	0.732
Benzo(*a*)pyrene	0.025	0.0253	0.0236	0.0346	0.0732
Bis(chloromethyl)ether	2.745	2.78	2.59	3.80	8.04
Bis(2-chloroethyl)ether	428.3	434	404	593	1255
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	75.5	76.5	71.2	104	221
Bromodichloromethane [Dichlorobromomethane]	2750	2787	2592	3810	8060
Bromoform [Tribromomethane]	10600	10743	9991	14686	31071
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	460	466	434	637	1348
Chlordane	0.025	0.0253	0.0236	0.0346	0.0732
Chlorobenzene	27370	27739	25797	37921	80228
Chlorodibromomethane [Dibromochloromethane]	1830	1855	1725	2535	5364
Chloroform [Trichloromethane]	76970	78006	72546	106642	225617
Chromium (hexavalent)	5020	5088	4731	6955	14714
Chrysene	25.2	25.5	23.8	34.9	73.8
Cresols [Methylphenols]	93010	94262	87664	128866	272635
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.02	0.0203	0.0189	0.0277	0.0586
4,4'-DDE	0.0013	0.00132	0.00123	0.00180	0.00381
4,4'-DDT	0.004	0.00405	0.00377	0.00554	0.0117
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	4730	4794	4458	6553	13864
1,2-Dibromoethane [Ethylene Dibromide]	42.4	43.0	40.0	58.7	124
m-Dichlorobenzene [1,3-Dichlorobenzene]	5950	6030	5608	8243	17440
o-Dichlorobenzene [1,2-Dichlorobenzene]	32990	33434	31094	45707	96701
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	22.4	22.7	21.1	31.0	65.6
1,2-Dichloroethane	3640	3689	3431	5043	10669
1,1-Dichloroethylene [1,1-Dichloroethene]	551140	558561	519462	763608	1615526
Dichloromethane [Methylene Chloride]	133330	135125	125667	184729	390822
1,2-Dichloropropane	2590	2625	2441	3588	7591
1,3-Dichloropropene [1,3-Dichloropropylene]	1190	1206	1122	1648	3488
Dicofol [Kelthane]	3	3.04	2.83	4.15	8.79
Dieldrin	2.0E-04	0.000203	0.000189	0.000277	0.000586
2,4-Dimethylphenol	84360	85496	79511	116881	247279
Di-*n*-Butyl Phthalate	924	936	871	1280	2708
Dioxins/Furans [TCDD Equivalents]	7.97E-07	8.08E-07	7.51E-07	0.0000011	0.0000023
Endrin	0.2	0.203	0.189	0.277	0.586
Epichlorohydrin	20130	20401	18973	27890	59005
Ethylbenzene	18670	18921	17597	25867	54726
Ethylene Glycol	1.68E+08	170262120	158343772	232765344	492449129

Parameter	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.001	0.00101	0.000943	0.00138	0.00293
Heptachlor Epoxide	0.0029	0.00294	0.00273	0.00401	0.00850
Hexachlorobenzene	0.0068	0.00689	0.00641	0.00942	0.0199
Hexachlorobutadiene	2.2	2.23	2.07	3.04	6.44
Hexachlorocyclohexane (*alpha*)	0.084	0.0851	0.0792	0.116	0.246
Hexachlorocyclohexane (*beta*)	2.6	2.64	2.45	3.60	7.62
Hexachlorocyclohexane (*gamma*) [Lindane]	3.41	3.46	3.21	4.72	9.99
Hexachlorocyclopentadiene	116	118	109	160	340
Hexachloroethane	23.3	23.6	22.0	32.2	68.2
Hexachlorophene	29	29.4	27.3	40.1	85.0
4,4'-Isopropylidenediphenol [Bisphenol A]	159820	161972	150634	221431	468471
Lead	38.3	205	190	279	591
Mercury	0.122	0.124	0.115	0.169	0.357
Methoxychlor	30	30.4	28.3	41.5	87.9
Methyl Ethyl Ketone	9.92E+06	10053573	9349823	13744239	29077948
Methyl *tert*-butyl ether [MTBE]	104820	106231	98795	145228	307253
Nickel	11400	25391	23613	34711	73436
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	18730	18982	17653	25950	54902
N-Nitrosodiethylamine	21	21.3	19.8	29.0	61.5
N-Nitroso-di-*n*-Butylamine	42	42.6	39.6	58.1	123
Pentachlorobenzene	3.55	3.60	3.35	4.91	10.4
Pentachlorophenol	2.9	2.94	2.73	4.01	8.50
Polychlorinated Biphenyls [PCBs]	6.40E-03	0.00649	0.00603	0.00886	0.0187
Pyridine	9470	9598	8926	13120	27758
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.4	2.43	2.26	3.32	7.03
1,1,2,2-Tetrachloroethane	263.5	267	248	365	772
Tetrachloroethylene [Tetrachloroethylene]	2800	2838	2639	3879	8207
Thallium	2.3	2.33	2.17	3.18	6.74
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.11	0.111	0.104	0.152	0.322
2,4,5-TP [Silvex]	3690	3740	3478	5112	10816
1,1,1-Trichloroethane	7843540	7949153	7392713	10867287	22991335
1,1,2-Trichloroethane	1660	1682	1565	2299	4865
Trichloroethylene [Trichloroethene]	719	729	678	996	2107
2,4,5-Trichlorophenol	18670	18921	17597	25867	54726
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	165	167	156	228	483

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	1.76	2.14
Aluminum	584	709
Arsenic	218	265
Cadmium	0.765	0.928
Carbaryl	1.17	1.43
Chlordane	0.00316	0.00384
Chlorpyrifos	0.0324	0.0394
Chromium (+3)	274	333
Chromium (+6)	8.39	10.1
Copper	20.2	24.6
Cyanide (free)	8.47	10.2
4,4'-DDT	0.000792	0.000962
Demeton	0.0792	0.0962
Diazinon	0.100	0.121
Dicofol	15.6	19.0
Dieldrin	0.00158	0.00192
Diuron	55.4	67.3
Endosulfan (alpha)	0.0443	0.0538
Endosulfan (beta)	0.0443	0.0538
Endosulfan sulfate	0.0443	0.0538
Endrin	0.00158	0.00192
Guthion	0.00792	0.00962
Heptachlor	0.00316	0.00384
Hexachlorocyclohexane (Lindane)	0.0633	0.0769
Lead	10.0	12.2
Malathion	0.00792	0.00962
Mercury	1.03	1.25
Methoxychlor	0.0237	0.0288
Mirex	0.000792	0.000962
Nickel	87.4	106
Nonylphenol	5.22	6.34
Parathion (ethyl)	0.0103	0.0125
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls (PCBs)	0.0110	0.0134
Selenium	3.96	4.81
Silver	3.21	3.90
Toxaphene	0.000158	0.000192
Tributyltin (TBT)	0.0190	0.0230
2,4,5 Trichlorophenol	50.7	61.5
Zinc	223	271

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	1115	1354
Aldrin	0.000111	0.000135
Anthracene	12772	15510
Antimony	10387	12612
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	5634	6842
Benzidine	1.03	1.26
Benzo(*a*)anthracene	0.242	0.294
Benzo(*a*)pyrene	0.0242	0.0294
Bis(chloromethyl)ether	2.66	3.23
Bis(2-chloroethyl)ether	415	504
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	73.2	88.9
Bromodichloromethane [Dichlorobromomethane]	2667	3238
Bromoform [Tribromomethane]	10280	12483
Cadmium	N/A	N/A
Carbon Tetrachloride	446	541
Chlordane	0.0242	0.0294
Chlorobenzene	26544	32233
Chlorodibromomethane [Dibromochloromethane]	1774	2155
Chloroform [Trichloromethane]	74649	90646
Chromium (hexavalent)	4868	5911
Chrysene	24.4	29.6
Cresols [Methylphenols]	90206	109536
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0193	0.0235
4,4'-DDE	0.00126	0.00153
4,4'-DDT	0.00387	0.00471
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	4587	5570
1,2-Dibromoethane [Ethylene Dibromide]	41.1	49.9
m-Dichlorobenzene [1,3-Dichlorobenzene]	5770	7007
o-Dichlorobenzene [1,2-Dichlorobenzene]	31995	38851
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	21.7	26.3
1,2-Dichloroethane	3530	4286
1,1-Dichloroethylene [1,1-Dichloroethene]	534526	649067
Dichloromethane [Methylene Chloride]	129310	157020
1,2-Dichloropropane	2511	3050
1,3-Dichloropropene [1,3-Dichloropropylene]	1154	1401
Dicofol [Kelthane]	2.90	3.53
Dieldrin	0.000193	0.000235
2,4-Dimethylphenol	81817	99349
Di-*n*-Butyl Phthalate	896	1088
Dioxins/Furans [TCDD Equivalents]	7.72E-07	9.38E-07
Endrin	0.193	0.235
Epichlorohydrin	19523	23706
Ethylbenzene	18107	21987
Ethylene Glycol	162935740	197850542
Fluoride	N/A	N/A
Heptachlor	0.000969	0.00117

Human Health	*70% of Daily Avg.*	*85% of Daily Avg.*
Heptachlor Epoxide	0.00281	0.00341
Hexachlorobenzene	0.00659	0.00800
Hexachlorobutadiene	2.13	2.59
Hexachlorocyclohexane (*alpha*)	0.0814	0.0989
Hexachlorocyclohexane (*beta*)	2.52	3.06
Hexachlorocyclohexane (*gamma*) [Lindane]	3.30	4.01
Hexachlorocyclopentadiene	112	136
Hexachloroethane	22.5	27.4
Hexachlorophene	28.1	34.1
4,4'-Isopropylidenediphenol [Bisphenol A]	155002	188217
Lead	195	237
Mercury	0.118	0.143
Methoxychlor	29.0	35.3
Methyl Ethyl Ketone	9620967	11682603
Methyl *tert*-butyl ether [MTBE]	101660	123444
Nickel	24297	29504
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	18165	22057
N-Nitrosodiethylamine	20.3	24.7
N-Nitroso-di-*n*-Butylamine	40.7	49.4
Pentachlorobenzene	3.44	4.18
Pentachlorophenol	2.81	3.41
Polychlorinated Biphenyls [PCBs]	0.00620	0.00753
Pyridine	9184	11152
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.32	2.82
1,1,2,2-Tetrachloroethane	255	310
Tetrachloroethylene [Tetrachloroethylene]	2715	3297
Thallium	2.23	2.70
Toluene	N/A	N/A
Toxaphene	0.106	0.129
2,4,5-TP [Silvex]	3578	4345
1,1,1-Trichloroethane	7607101	9237194
1,1,2-Trichloroethane	1609	1954
Trichloroethylene [Trichloroethene]	697	846
2,4,5-Trichlorophenol	18107	21987
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	160	194

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Tier III

TEXTOX MENU #7 - INTERMITTENT STREAM WITH PERENNIAL POOLS

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, Incidental Fishery
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No.:	WQ0002973000
Outfall No.:	005 (305)
Prepared by:	Jaspinder Singh
Date:	August 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Hampton Creek	
Segment No.:	611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved September 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	9.1	
Critical Low Flow [7Q2] (cfs):	0	
% Effluent for Chronic Aquatic Life:	100	
% Effluent for Acute Aquatic Life:	100	
Effluent Flow for Human Health (MGD):	5.5	
Harmonic Mean Flow (cfs):	0.1	
% Effluent for Human Health:	98.839	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

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	3.00	N/A	1.72	N/A	2.52	5.34
Aluminum	991	N/A	991	N/A	568	N/A	834	1765
Arsenic	340	150	625	276	358	212	312	660
Cadmium	8.2	0.239	33.3	0.966	19.1	0.743	1.09	2.31
Carbaryl	2.0	N/A	2.00	N/A	1.15	N/A	1.68	3.56
Chlordane	2.4	0.004	2.40	0.00400	1.38	0.00308	0.00452	0.00957
Chlorpyrifos	0.083	0.041	0.0830	0.0410	0.0476	0.0316	0.0464	0.0981
Chromium (+3)	551	72	2662	346	1525	267	391	829
Chromium (+6)	15.7	10.6	15.7	10.6	9.00	8.16	11.9	25.3
Copper	13.7	9.1	38.2	25.6	21.9	19.7	28.9	61.2
Cyanide (free)	45.8	10.7	45.8	10.7	26.2	8.24	12.1	25.6
4,4'-DDT	1.1	0.001	1.10	0.00100	0.630	0.000770	0.00113	0.00239
Demeton	N/A	0.1	N/A	0.100	N/A	0.0770	0.113	0.239
Diazinon	0.17	0.17	0.170	0.170	0.0974	0.131	0.143	0.302
Dicofol	59.3	19.8	59.3	19.8	34.0	15.2	22.4	47.4
Dieldrin	0.24	0.002	0.240	0.00200	0.138	0.00154	0.00226	0.00478
Diuron	210	70	210	70.0	120	53.9	79.2	167
Endosulfan I (alpha)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan II (beta)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan sulfate	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endrin	0.086	0.002	0.0860	0.00200	0.0493	0.00154	0.00226	0.00478
Guthion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Heptachlor	0.52	0.004	0.520	0.00400	0.298	0.00308	0.00452	0.00957
Hexachlorocyclohexane (Lindane)	1.126	0.08	1.13	0.0800	0.645	0.0616	0.0905	0.191
Lead	62	2.41	326	12.7	187	9.77	14.3	30.3
Malathion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Mercury	2.4	1.3	2.40	1.30	1.38	1.00	1.47	3.11
Methoxychlor	N/A	0.03	N/A	0.0300	N/A	0.0231	0.0339	0.0718
Mirex	N/A	0.001	N/A	0.00100	N/A	0.000770	0.00113	0.00239
Nickel	452	50.2	994	110	570	85.0	124	264
Nonylphenol	28	6.6	28.0	6.60	16.0	5.08	7.47	15.8
Parathion (ethyl)	0.065	0.013	0.0650	0.0130	0.0372	0.0100	0.0147	0.0311
Pentachlorophenol	4.8	3.7	4.77	3.66	2.73	2.82	4.02	8.50
Phenanthrene	30	30	30.0	30.0	17.2	23.1	25.2	53.4
Polychlorinated Biphenyls (PCBs)	2.0	0.014	2.00	0.0140	1.15	0.0108	0.0158	0.0335
Selenium	20	5	20.0	5.00	11.5	3.85	5.65	11.9
Silver	0.8	N/A	5.45	N/A	3.12	N/A	4.59	9.71
Toxaphene	0.78	0.0002	0.780	0.000200	0.447	0.000154	0.000226	0.000478
Tributyltin (TBT)	0.13	0.024	0.130	0.0240	0.0745	0.0185	0.0271	0.0574
2,4,5 Trichlorophenol	136	64	136	64.0	77.9	49.3	72.4	153
Zinc	113	114	379	382	217	294	319	675

HUMAN HEALTH (APPLIES FOR INCIDENTAL FRESHWATER FISH TISSUE)

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1150	1164	1082	1590	3365
Aldrin	1.147E-04	0.000116	0.000108	0.000158	0.000335
Anthracene	13170	13325	12392	18216	38539
Antimony	10710	10836	10077	14813	31340
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	5810	5878	5467	8036	17001
Benzidine	1.07	1.08	1.01	1.47	3.13
Benzo(*a*)anthracene	0.25	0.253	0.235	0.345	0.731
Benzo(*a*)pyrene	0.025	0.0253	0.0235	0.0345	0.0731
Bis(chloromethyl)ether	2.745	2.78	2.58	3.79	8.03
Bis(2-chloroethyl)ether	428.3	433	403	592	1253
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	75.5	76.4	71.0	104	220
Bromodichloromethane [Dichlorobromomethane]	2750	2782	2588	3803	8047
Bromoform [Tribromomethane]	10600	10725	9974	14661	31018
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	460	465	433	636	1346
Chlordane	0.025	0.0253	0.0235	0.0345	0.0731
Chlorobenzene	27370	27692	25753	37857	80092
Chlorodibromomethane [Dibromochloromethane]	1830	1852	1722	2531	5355
Chloroform [Trichloromethane]	76970	77874	72423	106462	225236
Chromium (hexavalent)	5020	5079	4723	6943	14689
Chrysene	25.2	25.5	23.7	34.8	73.7
Cresols [Methylphenols]	93010	94103	87516	128648	272174
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.02	0.0202	0.0188	0.0276	0.0585
4,4'-DDE	0.0013	0.00132	0.00122	0.00179	0.00380
4,4'-DDT	0.004	0.00405	0.00376	0.00553	0.0117
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	4730	4786	4451	6542	13841
1,2-Dibromoethane [Ethylene Dibromide]	42.4	42.9	39.9	58.6	124
m-Dichlorobenzene [1,3-Dichlorobenzene]	5950	6020	5599	8229	17411
o-Dichlorobenzene [1,2-Dichlorobenzene]	32990	33378	31041	45630	96538
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	22.4	22.7	21.1	30.9	65.5
1,2-Dichloroethane	3640	3683	3425	5034	10651
1,1-Dichloroethylene [1,1-Dichloroethene]	551140	557617	518583	762317	1612794
Dichloromethane [Methylene Chloride]	133330	134897	125454	184417	390162
1,2-Dichloropropane	2590	2620	2437	3582	7579
1,3-Dichloropropene [1,3-Dichloropropylene]	1190	1204	1120	1645	3482
Dicofol [Kelthane]	3	3.04	2.82	4.14	8.77
Dieldrin	2.0E-04	0.000202	0.000188	0.000276	0.000585
2,4-Dimethylphenol	84360	85351	79377	116683	246861
Di-*n*-Butyl Phthalate	924	935	869	1278	2703
Dioxins/Furans [TCDD Equivalents]	7.97E-07	8.06E-07	7.50E-07	0.0000011	0.0000023
Endrin	0.2	0.202	0.188	0.276	0.585
Epichlorohydrin	20130	20367	18941	27843	58906
Ethylbenzene	18670	18889	17567	25823	54633
Ethylene Glycol	1.68E+08	169974214	158076019	232371747	491616418

Parameter	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.001	0.00101	0.000941	0.00138	0.00292
Heptachlor Epoxide	0.0029	0.00293	0.00273	0.00401	0.00848
Hexachlorobenzene	0.0068	0.00688	0.00640	0.00940	0.0198
Hexachlorobutadiene	2.2	2.23	2.07	3.04	6.43
Hexachlorocyclohexane (*alpha*)	0.084	0.0850	0.0790	0.116	0.245
Hexachlorocyclohexane (*beta*)	2.6	2.63	2.45	3.59	7.60
Hexachlorocyclohexane (*gamma*) [Lindane]	3.41	3.45	3.21	4.71	9.97
Hexachlorocyclopentadiene	116	117	109	160	339
Hexachloroethane	23.3	23.6	21.9	32.2	68.1
Hexachlorophene	29	29.3	27.3	40.1	84.8
4,4'-Isopropylidenediphenol [Bisphenol A]	159820	161698	150379	221057	467679
Lead	38.3	204	190	279	590
Mercury	0.122	0.123	0.115	0.168	0.357
Methoxychlor	30	30.4	28.2	41.4	87.7
Methyl Ethyl Ketone	9.92E+06	10036573	9334013	13720998	29028779
Methyl *tert*-butyl ether [MTBE]	104820	106052	98628	144983	306733
Nickel	11400	25348	23573	34652	73312
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	18730	18950	17624	25906	54809
N-Nitrosodiethylamine	21	21.2	19.8	29.0	61.4
N-Nitroso-di-*n*-Butylamine	42	42.5	39.5	58.0	122
Pentachlorobenzene	3.55	3.59	3.34	4.91	10.3
Pentachlorophenol	2.9	2.93	2.73	4.01	8.48
Polychlorinated Biphenyls [PCBs]	6.40E-03	0.00648	0.00602	0.00885	0.0187
Pyridine	9470	9581	8911	13098	27711
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.4	2.43	2.26	3.31	7.02
1,1,2,2-Tetrachloroethane	263.5	267	248	364	771
Tetrachloroethylene [Tetrachloroethylene]	2800	2833	2635	3872	8193
Thallium	2.3	2.33	2.16	3.18	6.73
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.11	0.111	0.104	0.152	0.321
2,4,5-TP [Silvex]	3690	3733	3472	5103	10798
1,1,1-Trichloroethane	7843540	7935712	7380212	10848911	22952458
1,1,2-Trichloroethane	1660	1680	1562	2296	4857
Trichloroethylene [Trichloroethene]	719	727	677	994	2104
2,4,5-Trichlorophenol	18670	18889	17567	25823	54633
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	165	167	155	228	482

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

Aquatic Life ***Parameter***	***70% of Daily Avg. (µg/L)***	***85% of Daily Avg. (µg/L)***
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	218	265
Cadmium	0.765	0.928
Carbaryl	1.17	1.43
Chlordane	0.00316	0.00384
Chlorpyrifos	0.0324	0.0394
Chromium (+3)	274	333
Chromium (+6)	8.39	10.1
Copper	20.2	24.6
Cyanide (free)	8.47	10.2
4,4'-DDT	0.000792	0.000962
Demeton	0.0792	0.0962
Diazinon	0.100	0.121
Dicofol	15.6	19.0
Dieldrin	0.00158	0.00192
Diuron	55.4	67.3
Endosulfan (alpha)	0.0443	0.0538
Endosulfan (beta)	0.0443	0.0538
Endosulfan sulfate	0.0443	0.0538
Endrin	0.00158	0.00192
Guthion	0.00792	0.00962
Heptachlor	0.00316	0.00384
Hexachlorocyclohexane (Lindane)	0.0633	0.0769
Lead	10.0	12.2
Malathion	0.00792	0.00962
Mercury	1.03	1.25
Methoxychlor	0.0237	0.0288
Mirex	0.000792	0.000962
Nickel	87.4	106
Nonylphenol	5.22	6.34
Parathion (ethyl)	0.0103	0.0125
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls (PCBs)	0.0110	0.0134
Selenium	3.96	4.81
Silver	3.21	3.90
Toxaphene	0.000158	0.000192
Tributyltin (TBT)	0.0190	0.0230
2,4,5 Trichlorophenol	50.7	61.5
Zinc	223	271

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	1113	1352
Aldrin	0.000111	0.000134
Anthracene	12751	15483
Antimony	10369	12591
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	5625	6830
Benzidine	1.03	1.25
Benzo(*a*)anthracene	0.242	0.293
Benzo(*a*)pyrene	0.0242	0.0293
Bis(chloromethyl)ether	2.65	3.22
Bis(2-chloroethyl)ether	414	503
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	73.1	88.7
Bromodichloromethane [Dichlorobromomethane]	2662	3233
Bromoform [Tribromomethane]	10263	12462
Cadmium	N/A	N/A
Carbon Tetrachloride	445	540
Chlordane	0.0242	0.0293
Chlorobenzene	26500	32178
Chlorodibromomethane [Dibromochloromethane]	1771	2151
Chloroform [Trichloromethane]	74523	90492
Chromium (hexavalent)	4860	5901
Chrysene	24.3	29.6
Cresols [Methylphenols]	90053	109350
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0193	0.0235
4,4'-DDE	0.00125	0.00152
4,4'-DDT	0.00387	0.00470
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	4579	5561
1,2-Dibromoethane [Ethylene Dibromide]	41.0	49.8
m-Dichlorobenzene [1,3-Dichlorobenzene]	5760	6995
o-Dichlorobenzene [1,2-Dichlorobenzene]	31941	38786
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	21.6	26.3
1,2-Dichloroethane	3524	4279
1,1-Dichloroethylene [1,1-Dichloroethene]	533622	647970
Dichloromethane [Methylene Chloride]	129092	156754
1,2-Dichloropropane	2507	3045
1,3-Dichloropropene [1,3-Dichloropropylene]	1152	1399
Dicofol [Kelthane]	2.90	3.52
Dieldrin	0.000193	0.000235
2,4-Dimethylphenol	81678	99181
Di-*n*-Butyl Phthalate	894	1086
Dioxins/Furans [TCDD Equivalents]	7.71E-07	9.37E-07
Endrin	0.193	0.235
Epichlorohydrin	19490	23666
Ethylbenzene	18076	21950
Ethylene Glycol	162660223	197515985
Fluoride	N/A	N/A
Heptachlor	0.000968	0.00117

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Heptachlor Epoxide	0.00280	0.00340
Hexachlorobenzene	0.00658	0.00799
Hexachlorobutadiene	2.13	2.58
Hexachlorocyclohexane (*alpha*)	0.0813	0.0987
Hexachlorocyclohexane (*beta*)	2.51	3.05
Hexachlorocyclohexane (*gamma*) [Lindane]	3.30	4.00
Hexachlorocyclopentadiene	112	136
Hexachloroethane	22.5	27.3
Hexachlorophene	28.0	34.0
4,4'-Isopropylidenediphenol [Bisphenol A]	154740	187898
Lead	195	237
Mercury	0.118	0.143
Methoxychlor	29.0	35.2
Methyl Ethyl Ketone	9604698	11662848
Methyl *tert*-butyl ether [MTBE]	101488	123235
Nickel	24256	29454
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	18134	22020
N-Nitrosodiethylamine	20.3	24.6
N-Nitroso-di-*n*-Butylamine	40.6	49.3
Pentachlorobenzene	3.43	4.17
Pentachlorophenol	2.80	3.40
Polychlorinated Biphenyls [PCBs]	0.00619	0.00752
Pyridine	9169	11133
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.32	2.82
1,1,2,2-Tetrachloroethane	255	309
Tetrachloroethylene [Tetrachloroethylene]	2711	3291
Thallium	2.22	2.70
Toluene	N/A	N/A
Toxaphene	0.106	0.129
2,4,5-TP [Silvex]	3572	4338
1,1,1-Trichloroethane	7594237	9221574
1,1,2-Trichloroethane	1607	1951
Trichloroethylene [Trichloroethene]	696	845
2,4,5-Trichlorophenol	18076	21950
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	159	193

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Tier III

TEXTOX MENU #7 - INTERMITTENT STREAM WITH PERENNIAL POOLS

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, Incidental Fishery
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Covia Clay LLC
TPDES Permit No.:	WQ0002973000
Outfall No.:	006 (306)
Prepared by:	Jaspinder Singh
Date:	August 19, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Hampton Creek	
Segment No.:	611	
TSS (mg/L):	8	
pH (Standard Units):	6.4	
Hardness (mg/L as $CaCO_3$):	96	[Site-specific value approved September 1995]
Chloride (mg/L):	19	
Effluent Flow for Aquatic Life (MGD):	7.5	
Critical Low Flow [7Q2] (cfs):	0	
% Effluent for Chronic Aquatic Life:	100	
% Effluent for Acute Aquatic Life:	100	
Effluent Flow for Human Health (MGD):	5.9	
Harmonic Mean Flow (cfs):	0.1	
% Effluent for Human Health:	98.916	

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	104892.47	0.544		1.00	Assumed
Cadmium	6.60	-1.13	379759.21	0.248		1.00	Assumed
Chromium (total)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	478769.32	0.207		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	224757.09	0.357		1.00	Assumed
Lead	6.45	-0.80	533983.71	0.190		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	149705.83	0.455		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	281719.76	0.307		1.00	Assumed
Zinc	6.10	-0.70	293654.74	0.299		1.00	Assumed

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	3.00	N/A	1.72	N/A	2.52	5.34
Aluminum	991	N/A	991	N/A	568	N/A	834	1765
Arsenic	340	150	625	276	358	212	312	660
Cadmium	8.2	0.239	33.3	0.966	19.1	0.743	1.09	2.31
Carbaryl	2.0	N/A	2.00	N/A	1.15	N/A	1.68	3.56
Chlordane	2.4	0.004	2.40	0.00400	1.38	0.00308	0.00452	0.00957
Chlorpyrifos	0.083	0.041	0.0830	0.0410	0.0476	0.0316	0.0464	0.0981
Chromium (+3)	551	72	2662	346	1525	267	391	829
Chromium (+6)	15.7	10.6	15.7	10.6	9.00	8.16	11.9	25.3
Copper	13.7	9.1	38.2	25.6	21.9	19.7	28.9	61.2
Cyanide (free)	45.8	10.7	45.8	10.7	26.2	8.24	12.1	25.6
4,4'-DDT	1.1	0.001	1.10	0.00100	0.630	0.000770	0.00113	0.00239
Demeton	N/A	0.1	N/A	0.100	N/A	0.0770	0.113	0.239
Diazinon	0.17	0.17	0.170	0.170	0.0974	0.131	0.143	0.302
Dicofol	59.3	19.8	59.3	19.8	34.0	15.2	22.4	47.4
Dieldrin	0.24	0.002	0.240	0.00200	0.138	0.00154	0.00226	0.00478
Diuron	210	70	210	70.0	120	53.9	79.2	167
Endosulfan I (alpha)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan II (beta)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan sulfate	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endrin	0.086	0.002	0.0860	0.00200	0.0493	0.00154	0.00226	0.00478
Guthion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Heptachlor	0.52	0.004	0.520	0.00400	0.298	0.00308	0.00452	0.00957
Hexachlorocyclohexane (Lindane)	1.126	0.08	1.13	0.0800	0.645	0.0616	0.0905	0.191
Lead	62	2.41	326	12.7	187	9.77	14.3	30.3
Malathion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Mercury	2.4	1.3	2.40	1.30	1.38	1.00	1.47	3.11
Methoxychlor	N/A	0.03	N/A	0.0300	N/A	0.0231	0.0339	0.0718
Mirex	N/A	0.001	N/A	0.00100	N/A	0.000770	0.00113	0.00239
Nickel	452	50.2	994	110	570	85.0	124	264
Nonylphenol	28	6.6	28.0	6.60	16.0	5.08	7.47	15.8
Parathion (ethyl)	0.065	0.013	0.0650	0.0130	0.0372	0.0100	0.0147	0.0311
Pentachlorophenol	4.8	3.7	4.77	3.66	2.73	2.82	4.02	8.50
Phenanthrene	30	30	30.0	30.0	17.2	23.1	25.2	53.4
Polychlorinated Biphenyls (PCBs)	2.0	0.014	2.00	0.0140	1.15	0.0108	0.0158	0.0335
Selenium	20	5	20.0	5.00	11.5	3.85	5.65	11.9
Silver	0.8	N/A	5.45	N/A	3.12	N/A	4.59	9.71
Toxaphene	0.78	0.0002	0.780	0.000200	0.447	0.000154	0.000226	0.000478
Tributyltin (TBT)	0.13	0.024	0.130	0.0240	0.0745	0.0185	0.0271	0.0574
2,4,5 Trichlorophenol	136	64	136	64.0	77.9	49.3	72.4	153
Zinc	113	114	379	382	217	294	319	675

HUMAN HEALTH (APPLIES FOR INCIDENTAL FRESHWATER FISH TISSUE)

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1150	1163	1081	1589	3362
Aldrin	1.147E-04	0.000116	0.000108	0.000158	0.000335
Anthracene	13170	13314	12382	18201	38508
Antimony	10710	10827	10069	14802	31315
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	5810	5874	5462	8029	16988
Benzidine	1.07	1.08	1.01	1.47	3.12
Benzo(*a*)anthracene	0.25	0.253	0.235	0.345	0.730
Benzo(*a*)pyrene	0.025	0.0253	0.0235	0.0345	0.0730
Bis(chloromethyl)ether	2.745	2.78	2.58	3.79	8.02
Bis(2-chloroethyl)ether	428.3	433	403	591	1252
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	75.5	76.3	71.0	104	220
Bromodichloromethane [Dichlorobromomethane]	2750	2780	2586	3800	8040
Bromoform [Tribromomethane]	10600	10716	9966	14650	30994
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	460	465	432	635	1345
Chlordane	0.025	0.0253	0.0235	0.0345	0.0730
Chlorobenzene	27370	27670	25733	37827	80029
Chlorodibromomethane [Dibromochloromethane]	1830	1850	1721	2529	5350
Chloroform [Trichloromethane]	76970	77813	72366	106378	225059
Chromium (hexavalent)	5020	5075	4720	6938	14678
Chrysene	25.2	25.5	23.7	34.8	73.6
Cresols [Methylphenols]	93010	94029	87447	128546	271959
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.02	0.0202	0.0188	0.0276	0.0584
4,4'-DDE	0.0013	0.00131	0.00122	0.00179	0.00380
4,4'-DDT	0.004	0.00404	0.00376	0.00552	0.0116
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	4730	4782	4447	6537	13830
1,2-Dibromoethane [Ethylene Dibromide]	42.4	42.9	39.9	58.6	123
m-Dichlorobenzene [1,3-Dichlorobenzene]	5950	6015	5594	8223	17397
o-Dichlorobenzene [1,2-Dichlorobenzene]	32990	33351	31017	45594	96462
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	22.4	22.6	21.1	30.9	65.4
1,2-Dichloroethane	3640	3680	3422	5030	10643
1,1-Dichloroethylene [1,1-Dichloroethene]	551140	557178	518175	761717	1611524
Dichloromethane [Methylene Chloride]	133330	134791	125355	184272	389854
1,2-Dichloropropane	2590	2618	2435	3579	7573
1,3-Dichloropropene [1,3-Dichloropropylene]	1190	1203	1119	1644	3479
Dicofol [Kelthane]	3	3.03	2.82	4.14	8.77
Dieldrin	2.0E-04	0.000202	0.000188	0.000276	0.000584
2,4-Dimethylphenol	84360	85284	79314	116591	246667
Di-*n*-Butyl Phthalate	924	934	869	1277	2701
Dioxins/Furans [TCDD Equivalents]	7.97E-07	8.06E-07	7.49E-07	0.0000011	0.0000023
Endrin	0.2	0.202	0.188	0.276	0.584
Epichlorohydrin	20130	20351	18926	27821	58859
Ethylbenzene	18670	18875	17553	25803	54590
Ethylene Glycol	1.68E+08	169840369	157951543	232188768	491229298

Parameter	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.001	0.00101	0.000940	0.00138	0.00292
Heptachlor Epoxide	0.0029	0.00293	0.00273	0.00400	0.00847
Hexachlorobenzene	0.0068	0.00687	0.00639	0.00939	0.0198
Hexachlorobutadiene	2.2	2.22	2.07	3.04	6.43
Hexachlorocyclohexane (*alpha*)	0.084	0.0849	0.0790	0.116	0.245
Hexachlorocyclohexane (*beta*)	2.6	2.63	2.44	3.59	7.60
Hexachlorocyclohexane (*gamma*) [Lindane]	3.41	3.45	3.21	4.71	9.97
Hexachlorocyclopentadiene	116	117	109	160	339
Hexachloroethane	23.3	23.6	21.9	32.2	68.1
Hexachlorophene	29	29.3	27.3	40.0	84.7
4,4'-Isopropylidenediphenol [Bisphenol A]	159820	161571	150261	220883	467311
Lead	38.3	204	190	279	590
Mercury	0.122	0.123	0.115	0.168	0.356
Methoxychlor	30	30.3	28.2	41.4	87.7
Methyl Ethyl Ketone	9.92E+06	10028669	9326663	13710193	29005920
Methyl *tert*-butyl ether [MTBE]	104820	105968	98550	144869	306491
Nickel	11400	25328	23555	34625	73255
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	18730	18935	17610	25886	54766
N-Nitrosodiethylamine	21	21.2	19.7	29.0	61.4
N-Nitroso-di-*n*-Butylamine	42	42.5	39.5	58.0	122
Pentachlorobenzene	3.55	3.59	3.34	4.90	10.3
Pentachlorophenol	2.9	2.93	2.73	4.00	8.47
Polychlorinated Biphenyls [PCBs]	6.40E-03	0.00647	0.00602	0.00884	0.0187
Pyridine	9470	9574	8904	13088	27690
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.4	2.43	2.26	3.31	7.01
1,1,2,2-Tetrachloroethane	263.5	266	248	364	770
Tetrachloroethylene [Tetrachloroethylene]	2800	2831	2633	3869	8187
Thallium	2.3	2.33	2.16	3.17	6.72
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.11	0.111	0.103	0.152	0.321
2,4,5-TP [Silvex]	3690	3730	3469	5099	10789
1,1,1-Trichloroethane	7843540	7929463	7374400	10840368	22934384
1,1,2-Trichloroethane	1660	1678	1561	2294	4853
Trichloroethylene [Trichloroethene]	719	727	676	993	2102
2,4,5-Trichlorophenol	18670	18875	17553	25803	54590
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	165	167	155	228	482

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	1.76	2.14
Aluminum	584	709
Arsenic	218	265
Cadmium	0.765	0.928
Carbaryl	1.17	1.43
Chlordane	0.00316	0.00384
Chlorpyrifos	0.0324	0.0394
Chromium (+3)	274	333
Chromium (+6)	8.39	10.1
Copper	20.2	24.6
Cyanide (free)	8.47	10.2
4,4'-DDT	0.000792	0.000962
Demeton	0.0792	0.0962
Diazinon	0.100	0.121
Dicofol	15.6	19.0
Dieldrin	0.00158	0.00192
Diuron	55.4	67.3
Endosulfan (alpha)	0.0443	0.0538
Endosulfan (beta)	0.0443	0.0538
Endosulfan sulfate	0.0443	0.0538
Endrin	0.00158	0.00192
Guthion	0.00792	0.00962
Heptachlor	0.00316	0.00384
Hexachlorocyclohexane (Lindane)	0.0633	0.0769
Lead	10.0	12.2
Malathion	0.00792	0.00962
Mercury	1.03	1.25
Methoxychlor	0.0237	0.0288
Mirex	0.000792	0.000962
Nickel	87.4	106
Nonylphenol	5.22	6.34
Parathion (ethyl)	0.0103	0.0125
Pentachlorophenol	2.81	3.41
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls (PCBs)	0.0110	0.0134
Selenium	3.96	4.81
Silver	3.21	3.90
Toxaphene	0.000158	0.000192
Tributyltin (TBT)	0.0190	0.0230
2,4,5 Trichlorophenol	50.7	61.5
Zinc	223	271

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	1112	1350
Aldrin	0.000110	0.000134
Anthracene	12741	15471
Antimony	10361	12581
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	5620	6825
Benzidine	1.03	1.25
Benzo(*a*)anthracene	0.241	0.293
Benzo(*a*)pyrene	0.0241	0.0293
Bis(chloromethyl)ether	2.65	3.22
Bis(2-chloroethyl)ether	414	503
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	73.0	88.6
Bromodichloromethane [Dichlorobromomethane]	2660	3230
Bromoform [Tribromomethane]	10255	12452
Cadmium	N/A	N/A
Carbon Tetrachloride	445	540
Chlordane	0.0241	0.0293
Chlorobenzene	26479	32153
Chlorodibromomethane [Dibromochloromethane]	1770	2149
Chloroform [Trichloromethane]	74464	90421
Chromium (hexavalent)	4856	5897
Chrysene	24.3	29.6
Cresols [Methylphenols]	89982	109264
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0193	0.0234
4,4'-DDE	0.00125	0.00152
4,4'-DDT	0.00386	0.00469
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	4576	5556
1,2-Dibromoethane [Ethylene Dibromide]	41.0	49.8
m-Dichlorobenzene [1,3-Dichlorobenzene]	5756	6989
o-Dichlorobenzene [1,2-Dichlorobenzene]	31916	38755
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	21.6	26.3
1,2-Dichloroethane	3521	4276
1,1-Dichloroethylene [1,1-Dichloroethene]	533202	647459
Dichloromethane [Methylene Chloride]	128990	156631
1,2-Dichloropropane	2505	3042
1,3-Dichloropropene [1,3-Dichloropropylene]	1151	1397
Dicofol [Kelthane]	2.90	3.52
Dieldrin	0.000193	0.000234
2,4-Dimethylphenol	81614	99103
Di-*n*-Butyl Phthalate	893	1085
Dioxins/Furans [TCDD Equivalents]	7.71E-07	9.36E-07
Endrin	0.193	0.234
Epichlorohydrin	19474	23648
Ethylbenzene	18062	21932
Ethylene Glycol	162532137	197360452
Fluoride	N/A	N/A
Heptachlor	0.000967	0.00117

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Heptachlor Epoxide	0.00280	0.00340
Hexachlorobenzene	0.00657	0.00798
Hexachlorobutadiene	2.12	2.58
Hexachlorocyclohexane (*alpha*)	0.0812	0.0986
Hexachlorocyclohexane (*beta*)	2.51	3.05
Hexachlorocyclohexane (*gamma*) [Lindane]	3.29	4.00
Hexachlorocyclopentadiene	112	136
Hexachloroethane	22.5	27.3
Hexachlorophene	28.0	34.0
4,4'-Isopropylidenediphenol [Bisphenol A]	154618	187750
Lead	195	237
Mercury	0.118	0.143
Methoxychlor	29.0	35.2
Methyl Ethyl Ketone	9597135	11653664
Methyl *tert*-butyl ether [MTBE]	101408	123138
Nickel	24237	29431
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	18120	22003
N-Nitrosodiethylamine	20.3	24.6
N-Nitroso-di-*n*-Butylamine	40.6	49.3
Pentachlorobenzene	3.43	4.17
Pentachlorophenol	2.80	3.40
Polychlorinated Biphenyls [PCBs]	0.00619	0.00751
Pyridine	9161	11125
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.32	2.81
1,1,2,2-Tetrachloroethane	254	309
Tetrachloroethylene [Tetrachloroethylene]	2708	3289
Thallium	2.22	2.70
Toluene	N/A	N/A
Toxaphene	0.106	0.129
2,4,5-TP [Silvex]	3569	4334
1,1,1-Trichloroethane	7588257	9214313
1,1,2-Trichloroethane	1605	1950
Trichloroethylene [Trichloroethene]	695	844
2,4,5-Trichlorophenol	18062	21932
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	159	193

Appendix B
TDS, Chloride, and Sulfate Screening Calculations

The permittee has requested that tiered effluent limits be established for all outfalls. Under Tier I, discharges occur only in response to storm events and only when flow in Hampton Creek at FM 13 equals or exceeds 8.93 cfs. Under Tier II, discharges also occur only in response to storm events but only during times when flow in Hampton Creek at FM 13 is less than 8.93 cfs but equals or exceeds 4.46 cfs. Under Tier III, discharges may occur at any time, regardless of flow in Hampton Creek.

Tier I

The following procedures were used to evaluate whether existing effluent limitations or monitoring and reporting requirements are still adequate for TDS and sulfate for intermittent discharges via Outfalls 001, 002, 005, and 006. These screening procedures are intended to protect livestock, wildlife, shoreline vegetation, and aquatic life during periods when the streams are flowing. Additionally, the screening is also intended to preclude excessive TDS or sulfate loading in watersheds where loadings impact downstream perennial waters.

TDS

The screening value for TDS is determined by first calculating an initial TDS concentration, C_{TDS}, as follows:

Equation 1a: $C_{TDS} = (C_C/500 \text{ mg/L}) \times 2{,}500 \text{ mg/L}$

where: C_{TDS} = TDS concentration used to determine the TDS screening value
C_C = TDS criterion (mg/L) at the first downstream segment
500 mg/L = median concentration of TDS in Texas streams
2,500 mg/L = minimum TDS screening value

The TDS screening value, C_{SV}, is determined by comparing C_{TDS} with the following:

Table 1

If C_{TDS}	Then C_{SV}
≤ 2,500 mg/L	= 2,500 mg/L
> 2,500 mg/L	= C_{TDS}
> 6,000 mg/L	= 6,000 mg/L

In addition, some specific types of intermittent streams have alternative screening values:

Table 2

Specific Type of Intermittent Stream	If C_{TDS} is	Default Csv
Dry except for short-term flow in immediate response to rainfall.	< 4,000 mg/L	= 4,000 mg/L
	≥ 4,000 mg/L	= C_{TDS}
Constructed ditch conveying stormwater and wastewater, considered water in the state.	< 4,000 mg/L	= 4,000 mg/L
	≥ 4,000 mg/L	= C_{TDS}
Within 3 miles of tidal waters.	—	= 6,000 mg/L

Control measures for TDS, which may include effluent limitations, are considered when the average concentration of TDS in the effluent is greater than the C_{SV}. When effluent limitations are established in the permit, the screening value is often used as the daily average effluent limit. The daily maximum limit is generally 2.12 times the daily average limit.

Outfalls 001, 002, 005, and 006 all discharge on a very infrequent basis to streams within the watershed of Segment No. 0611, which has a TDS criterion of 250 mg/L. Based on Equation 1a, the value of C_{TDS} for these outfalls is:

$$C_{TDS} = (250 \text{ mg/L} / 500 \text{ mg/L}) \times 2{,}500 \text{ mg/L} = 1{,}250 \text{ mg/L}$$

Since this value is less than 2,500 mg/L, C_{SV} was initially set to 2,500 mg/L, consistent with Table 1.

Because discharges occur only in response to storm events and only when flow in Hampton Creek at FM 13 equal or exceeds 8.93 cfs, a screening value of 4,000 mg/L was determined to be more appropriate than the initial calculated value (see Table 2). Based on this value, a daily average TDS limit would be 4,000 mg/L, and a daily maximum TDS limit would be 8,480 mg/L.

TDS data provided in the application for Outfalls 001, 002, 005, and 006 consist of a single value for each outfall; therefore, the last five years of self-reported daily maximum TDS concentrations for these outfalls were used to perform the screening (see Table 3). Outfall 007 has never discharged and could therefore not be screened.

For Tier I (intermittent discharges), it is more appropriate to compare each daily maximum TDS value to the calculated daily maximum limit (8,480 mg/L) rather than to the TDS screening value, which is calculated to evaluate the need for daily average limits. To evaluate the need for daily maximum TDS limitations at each outfall, if any daily maximum TDS concentration equaled or exceeded 85% of the daily maximum limit, that outfall was given a daily maximum TDS limit. If no limits were needed, but any daily maximum TDS concentration exceeded 70% of the daily maximum limit, TDS monitoring and reporting was included for that outfall. See Table 3 below.

Table 3

Outfall	Self-Reported Daily Maximum TDS (mg/L)	Date	Tier I – Percent of Calculated Daily Max Limit
001	610	Dec 2016	7.2
	655	Sep 2108	7.7
	722	Feb 2019	8.5
	760	Apr 2019	8.5
	749	Jun 2019	9.0
	827	Jun 2020	9.8
	5.4	Jul 2020	0.01
	936	Sep 2020	11.0
	850	Dec 2020	10.0
	842	Apr 2021	9.9
002	1,660	Apr 2017	19.6
	2,420	Sep 2018	28.5
	880	Feb 2019	10.4
	1,350	Jun 2019	15.9
	1,570	Apr 2021	18.5
005	1,330	Dec 2016	15.7
	1,218	Apr 2017	14.4
	139	May 2017	1.6

Outfall	Self-Reported Daily Maximum TDS (mg/L)	Date	Tier I – Percent of Calculated Daily Max Limit
	108	Feb 2019	1.3
	284	Apr 2019	3.3
	422	Jul 2020	5
	352	Sep 2020	4.2
	148	Dec 2020	1.7
	527	May 2021	6.2
006	2,600	Dec 2016	30.7
	1,660	Sep 2018	19.6
	1,030	Jul 2020	12.2

No new TDS limits or monitoring and reporting requirements were determined to be necessary for Tier I based on this screening.

Sulfate

The screening value for sulfate is determined as follows:

Equation 1c: $SO_4\ C_{SV} = (TDS\ C_{SV}/TDS\ C_C) \times SO_4\ C_C$

where: $SO_4\ C_{SV}$ = Sulfate screening value (mg/L)
$TDS\ C_{SV}$ = TDS screening value (mg/L)
$TDS\ C_C$ = TDS criterion (mg/L) at the first downstream segment
$SO_4\ C_C$ = Sulfate criterion (mg/L) at the first downstream segment

Control measures for sulfate, which may include effluent limitations, are considered when the average concentration of sulfate in the effluent is greater than $SO_4\ C_{SV}$. When effluent limitations are established in the permit, the screening value is often used as the daily average effluent limit. The daily maximum limit is generally 2.12 times the daily average limit.

Outfalls 001, 002, 005, and 006 all discharge on a very infrequent basis to streams within the watershed of Segment No. 0611, which has a sulfate criterion of 50 mg/L. Based on Equation 1c, the value of $SO_4\ C_{SV}$ for these outfalls is:

$$SO_4\ C_{SV} = (4{,}000\ mg/L/250\ mg/L) \times 50\ mg/L = 800\ mg/L$$

Therefore, a daily average sulfate limit would be 800 mg/L, and a daily maximum sulfate limit would be 1,696 mg/L.

Sulfate data provided in the application for Outfalls 001, 002, 005, and 006 consist of a single value for each outfall; therefore, the last five years of self-reported daily maximum sulfate concentrations for these outfalls were used to perform the screening (see Table 4). Outfall 007 has never discharged and could therefore not be screened.

For Tier I, it is appropriate to compare each daily maximum sulfate value to the calculated daily maximum limit (in this case 1,696 mg/L). To determine the need for sulfate limits at each outfall, if any single sulfate concentration equaled or exceeded 85% of the daily maximum limit, that outfall was given a daily maximum sulfate limit. If no limits were needed, but any daily maximum sulfate concentration equaled or exceeded 70% of the daily maximum limit, sulfate monitoring and reporting was included for that outfall unless the existing permit already had limits. See Table 4 below.

Table 4

Outfall	Self-Reported Daily Maximum TDS (mg/L)	Date	Tier I – Percent of Calculated Daily Max Limit
001	464	Dec 2016	27.4
	501	Sep 2108	29.5
	543	Feb 2019	32
	560	Apr 2019	33
	485	Jun 2019	28.6
	515	Jun 2020	30.4
	533	Jul 2020	31.4
	545	Sep 2020	32.1
	570	Dec 2020	33.6
	513	Apr 2021	30.2
002	1,200	Apr 2017	70.8
	1,850	Sep 2018	109.1
	618	Feb 2019	36.4
	1,030	Apr 2021	60.7
005	989	Dec 2016	58.3
	668	Apr 2017	39.4
	44.7	May 2017	2.6
	30	Feb 2019	1.8
	188	Apr 2019	11.1
	263	Jul 2020	15.5
	167	Sep 2020	9.8
	86	Dec 2020	5.1
	380	May 2021	22.4
006	1,850	Dec 2016	109.1
	1,250	Sep 2018	73.7
	653	Jul 2020	38.5

No new Sulfate limits or monitoring and reporting requirements were determined to be necessary for Tier I based on this screening.

Tier II

The following procedures were used to evaluate whether existing effluent limitations or monitoring and reporting requirements are still adequate for TDS and sulfate for intermittent discharges via Outfalls 001, 002, 005, and 006. These screening procedures are intended to protect livestock, wildlife, shoreline vegetation, and aquatic life during periods when the streams are flowing. Additionally, the screening is also intended to preclude excessive TDS or sulfate loading in watersheds where loadings impact downstream perennial waters.

TDS

The screening value for TDS is determined by first calculating an initial TDS concentration, C_{TDS}, as follows:

Equation 1a: $C_{TDS} = (C_C/500\ mg/L) \times 2{,}500\ mg/L$

where: C_{TDS} = TDS concentration used to determine the TDS screening value
C_C = TDS criterion (mg/L) at the first downstream segment
500 mg/L = median concentration of TDS in Texas streams
2,500 mg/L = minimum TDS screening value

The TDS screening value, C_{SV}, is determined by comparing C_{TDS} with the following:

Table 1

If C_{TDS}	**Then C_{SV}**
≤ 2,500 mg/L	= 2,500 mg/L
> 2,500 mg/L	= C_{TDS}
> 6,000 mg/L	= 6,000 mg/L

In addition, some specific types of intermittent streams have alternative screening values:

Table 2

Specific Type of Intermittent Stream	**If C_{TDS} is**	**Default Csv**
Dry except for short-term flow in immediate response to rainfall.	< 4,000 mg/L	= 4,000 mg/L
	≥ 4,000 mg/L	= C_{TDS}
Constructed ditch conveying stormwater and wastewater, considered water in the state.	< 4,000 mg/L	= 4,000 mg/L
	≥ 4,000 mg/L	= C_{TDS}
Within 3 miles of tidal waters.	—	= 6,000 mg/L

Control measures for TDS, which may include effluent limitations, are considered when the average concentration of TDS in the effluent is greater than the C_{SV}. When effluent limitations are established in the permit, the screening value is often used as the daily average effluent limit. The daily maximum limit is generally 2.12 times the daily average limit.

Outfalls 001, 002, 005, and 006 all discharge on a very infrequent basis to streams within the watershed of Segment No. 0611, which has a TDS criterion of 250 mg/L. Based on Equation 1a, the value of C_{TDS} for these outfalls is:

$$C_{TDS} = (250 \text{ mg/L} / 500 \text{ mg/L}) \times 2{,}500 \text{ mg/L} = 1{,}250 \text{ mg/L}$$

Since this value is less than 2,500 mg/L, C_{SV} was initially set to 2,500 mg/L, consistent with Table 1.

Because discharges occur only in response to storm events and only when flow in Hampton Creek at FM 13 is less than 8.93 cfs but equals or exceeds 4.46 cfs, a screening value of 4,000 mg/L was determined to be more appropriate (see Table 2). Based on this value, a daily average TDS limit would be 4,000 mg/L, and a daily maximum TDS limit would be 8,480 mg/L.

TDS data provided in the application for Outfalls 001, 002, 005, and 006 consist of a single value for each outfall; therefore, the last five years of self-reported daily maximum TDS concentrations for these outfalls were used to perform the screening (see Table 5). Outfall 007 has never discharged and could therefore not be screened.

For Tier II (intermittent discharges), it is more appropriate to compare each daily maximum TDS value to the calculated daily maximum limit (8,480 mg/L) rather than to the TDS screening value, which is calculated to evaluate the need for daily average limits. To evaluate the need for daily maximum TDS limitations at each outfall, if any daily maximum TDS concentration equaled or

exceeded 85% of the daily maximum limit, that outfall was given a daily maximum TDS limit. If any daily maximum TDS concentration was less than 85% but equaled or exceeded 70% of the daily maximum limit, TDS monitoring and reporting was included for that outfall unless the existing permit already had limits. See Table 5 below.

Table 5

Outfall	Self-Reported Daily Maximum TDS (mg/L)	Date	Tier II – Percent of Calculated Daily Max Limit
001	616	Aug 2017	7.3
	542	Dec 2017	6.4
	672	Feb 2018	7.9
	616	Mar 2018	7.3
	688	Oct 2018	8.1
	740	Dec 2018	8.7
	765	Mar 2019	9.0
	413	Oct 2019	4.9
	826	Jan 2020	9.7
	13.2	Feb 2020	0.04
	792	Mar 2020	9.3
	7.6	Apr 2020	0.09
	818	May 2020	9.6
002	1,790	Dec 2017	21.1
	1,840	Oct 2018	21.2
	848	Dec 2018	10
	1,740	Mar 2020	20.5
	1,310	May 2020	15.4
	1,830	Mar 2021	21.6
005	80	Jun 2017	0.9
	1100	Dec 2017	13
	954	Feb 2018	11.3
	130	Dec 2018	1.5
	609	Oct 2019	7.2
	142	Jan 2020	1.7
	10.4	Apr 2020	0.1
006	2,130	Jun 2017	25.1
	1,760	Dec 2017	20.8
	1,840	Oct 2019	21.7
	1,920	Jan 2020	22.6

No new TDS limits or monitoring and reporting requirements were determined to be necessary for Tier II based on this screening.

Sulfate

The screening value for sulfate is determined as follows:

Equation 1c: $SO_4\ C_{SV} = (TDS\ C_{SV}/TDS\ C_C) \times SO_4\ C_C$

where: $SO_4\ C_{SV}$ = Sulfate screening value (mg/L)
$TDS\ C_{SV}$ = TDS screening value (mg/L)

Control measures for sulfate, which may include effluent limitations, are considered when the average concentration of sulfate in the effluent is greater than SO_4 C_{SV}. When effluent limitations are established in the permit, the screening value is often used as the daily average effluent limit. The daily maximum limit is generally 2.12 times the daily average limit.

Outfalls 001, 002, 005, and 006 all discharge on a very infrequent basis to streams within the watershed of Segment No. 0611, which has a sulfate criterion of 50 mg/L. Based on Equation 1c, the value of SO_4 C_{SV} for these outfalls is:

$$SO_4\ C_{SV} = (4{,}000\ mg/L / 250\ mg/L) \times 50\ mg/L = 800\ mg/L$$

Therefore, a daily average sulfate limit would be 800 mg/L, and a daily maximum sulfate limit would be 1,696 mg/L.

No application data for sulfate was provided for Outfall 001 because there has been no discharge during the permit term. Self-reported sulfate data from 2000-2005 was used, as it was the most recent data available. Sulfate data provided in the application for Outfalls 002, 005, and 006 consist of a single value for each outfall; therefore, the last five years of self-reported daily maximum sulfate concentrations for these outfalls were used to perform the screening (see Table 6). Outfall 007 has never discharged and could therefore not be screened.

For Tier II, it is appropriate to compare each daily maximum sulfate value to the calculated daily maximum limit (in this case 1,696 mg/L). To determine the need for sulfate limits at each outfall, if any single sulfate concentration equaled or exceeded 85% of the daily maximum limit, that outfall was given a daily maximum sulfate limit. If no limits were needed, but any daily maximum sulfate concentration equaled or exceeded 70% of the daily maximum limit, sulfate monitoring and reporting was included for that outfall unless the existing permit already had limits. See Table 6 below.

Table 6

Outfall	Self-Reported Daily Maximum Sulfate (mg/L)	Date	Tier II – Percent of Calculated Daily Max Limit
001	400	Aug 2017	23.6
	389	Dec 2017	22.9
	463	Feb 2018	27.3
	460	Mar 2018	27.1
	505	Oct 2018	29.8
	583	Dec 2018	34.4
	518	Mar 2019	30.5
	510	Oct 2020	30.1
	490	Jan 2020	28.9
	558	Feb 2020	32.9
	505	Mar 2020	29.8
	508	Apr 2020	30
	515	May 2020	30.4
002	1,330	Dec 2017	**78.4**
	1,340	Oct 2018	79
	648	Dec 2018	38.2
	1,200	Mar 2020	70.8
	898	May 2020	52.9

Outfall	Self-Reported Daily Maximum Sulfate (mg/L)	Date	Tier II – Percent of Calculated Daily Max Limit
	1,150	Mar 2021	67.8
005	44	Jun 2017	2.6
	822	Dec 2017	48.5
	657	Feb 2018	38.7
	45	Dec 2018	2.7
	427	Oct 2019	25.2
	43	Jan 2020	2.5
	290	Apr 2020	17.1
006	1,460	Jun 2017	86.1
	1,320	Dec 2017	**77.8**
	1,370	Oct 2019	**80.8**
	1,220	Jan 2020	**71.9**

No new Sulfate limits or monitoring and reporting requirements were determined to be necessary for Tier II based on this screening.

Tier III

The following procedures were used to evaluate whether existing effluent limitations or monitoring and reporting requirements are still adequate for TDS and sulfate for discharges via Outfalls 001, 002, 005, and 006. These screening procedures are intended to protect livestock, wildlife, shoreline vegetation, and aquatic life during periods when the streams are flowing as well as in perennial pools. Additionally, the screening is also intended to preclude excessive TDS or sulfate loading in watersheds where loadings impact downstream perennial waters.

TDS

The screening value for TDS is determined by first calculating an initial TDS concentration, C_{TDS}, as follows:

Equation 1a: $C_{TDS} = (C_C/500\ mg/L) \times 2{,}500\ mg/L$

where: C_{TDS} = TDS concentration used to determine the TDS screening value
C_C = TDS criterion (mg/L) at the first downstream segment
500 mg/L = median concentration of TDS in Texas streams
2,500 mg/L = minimum TDS screening value

The TDS screening value, C_{SV}, is determined by comparing C_{TDS} with the following:

Table 1

If C_{TDS}	Then C_{SV}
≤ 2,500 mg/L	= 2,500 mg/L
> 2,500 mg/L	= C_{TDS}
> 6,000 mg/L	= 6,000 mg/L

In addition, some specific types of intermittent streams have alternative screening values:

Table 2

Specific Type of Intermittent Stream	If C_{TDS} is	Default Csv
Dry except for short-term flow in immediate response to rainfall.	< 4,000 mg/L	= 4,000 mg/L
	≥ 4,000 mg/L	= C_{TDS}
Constructed ditch conveying stormwater and wastewater, considered water in the state.	< 4,000 mg/L	= 4,000 mg/L
	≥ 4,000 mg/L	= C_{TDS}
Within 3 miles of tidal waters.	—	= 6,000 mg/L

Control measures for TDS, which may include effluent limitations, are considered when the average concentration of TDS in the effluent is greater than the C_{SV}. When effluent limitations are established in the permit, the screening value is often used as the daily average effluent limit. The daily maximum limit is generally 2.12 times the daily average limit.

Outfalls 001, 002, 005, and 006 all discharge to streams within the watershed of Segment No. 0611, which has a TDS criterion of 250 mg/L. Based on Equation 1a, the value of C_{TDS} for these outfalls is:

$$C_{TDS} = (250 \text{ mg/L}/500 \text{ mg/L}) \times 2{,}500 \text{ mg/L} = 1{,}250 \text{ mg/L}$$

Since this value is less than 2,500 mg/L, C_{SV} was initially set to 2,500 mg/L, consistent with Table 1. Because discharges may occur at any time, regardless of flow in Hampton Creek, a screening value of 2,500 mg/L was determined to be appropriate. Based on this value, a daily average TDS limit would be 2,500 mg/L, and a daily maximum TDS limit would be 5,300 mg/L.

No application data for TDS was provided for Outfall 001 because there has been no discharge during the permit term. Self-reported TDS data from 2000-2005 was used, as it was the most recent data available. TDS data provided in the application for Outfalls 002, 005, and 006 consist of a single value for each outfall; therefore, the last five years of self-reported daily maximum TDS concentrations for these outfalls were used to perform the screening. Outfall 007 has never discharged and could therefore not be screened.

For Tier III, the average of the self-reported daily average TDS values was compared to the daily average limit of 2,500 mg/L (see Table 7).

Table 7

Outfall	Average TDS (mg/L)
001	837
002	1,530
005	148
006	No discharge

TDS values for Outfall 001, 002, and 005 were less than the daily average limit; therefore, no new TDS limits or monitoring and reporting requirements were determined to be necessary for Tier III based on this portion of the screening. No TDS data was submitted for Outfall 006 and therefore wasn't screened during this permit process.

Hampton Creek is an intermittent stream with perennial pools; therefore, additional screening is necessary. Equation 2 (see below) compares the concentration of TDS at the edge of the human health mixing zone downstream of the discharge (right side of equation) with the TDS criterion for the first downstream classified segment (left side of equation – C_C). A permit limit is usually not required when Equation 2 is satisfied.

Equation 2: $C_C \geq [(Q_S)(C_A) + (Q_E)(C_E)]/[Q_E + Q_S]$

Outfall 001 (301)

The following values were used in Equation 2:

Values needed for screening:			Data Source
Q_E - Average effluent flow	**4.3**	MGD	Self-reported data
Q_S - Stream harmonic mean flow	**0.10**	cfs	Default for intermittent with pools
Q_E - Average effluent flow	**3.6654**	cfs	Calculated
C_A - TDS - ambient segment concentration	**134**	mg/L	2010 IP, Appendix D
C_C - TDS - segment criterion	**250**	mg/L	2014 TSWQS, Appendix A
C_E - TDS - average effluent concentration	**837**	mg/L	Self-reported data

Preliminary Calculations:

Load in River $(Q_S)(C_A)$	Effluent Load $(Q_E)(C_E)$	New Concentration Equation 2
13.4	3067.94	818.33

No further screening for TDS needed if: 818.33 ≤ 250
Equation 2 is not satisfied, and further evaluation of the need for TDS limits is required as follows:

Calculate the WLA	WLA= $[C_C(Q_E+Q_S) - (Q_S)(C_A)]/Q_E$	253.16
Calculate the LTA	LTA = WLA × 0.93	235.44
Calculate the daily average	Daily Avg. = LTA × 1.47	346.10
Calculate the daily maximum	Daily Max. = LTA × 3.11	732.23
Calculate 70% of the daily average	70% of Daily Avg. =	242.27
Calculate 85% of the daily average	85% of Daily Avg. =	294.19

No permit limitations needed if:	837	≤	242.27		
Reporting needed if:	837	>	242.27	but ≤	294.19
Permit limits may be needed if:	837	>	294.19		

Permit limits may be needed for TDS

For Outfall 001, screening results above are more stringent than those based on intermittent stream portion of the screening.

Outfall 002 (302)

The following values were used in Equation 2:

Values needed for screening:			Data Source
Q_E - Average effluent flow	**4.8**	MGD	2-year average of daily average
Q_S - Stream harmonic mean flow	**0.10**	cfs	Default for intermittent with pools
Q_E - Average effluent flow	**7.7362**	cfs	Calculated
C_A - TDS - ambient segment concentration	**134**	mg/L	2010 IP, Appendix D
C_C - TDS - segment criterion	**250**	mg/L	2014 TSWQS, Appendix A
C_E - TDS - average effluent concentration	**1,530**	mg/L	Self-reported data

Preliminary Calculations:

Load in River $(Q_S)(C_A)$	Effluent Load $(Q_E)(C_E)$	New Concentration Equation 2
13.4	11,836.39	1512.19

No further screening for TDS needed if: 1512.19 ≤ 250

Equation 2 is not satisfied, and further evaluation of the need for TDS limits is required as follows:

Calculate the WLA	WLA= $[C_C(Q_E+Q_S) - (Q_S)(C_A)]/Q_E$	251.50
Calculate the LTA	LTA = WLA × 0.93	233.89
Calculate the daily average	Daily Avg. = LTA × 1.47	343.82
Calculate the daily maximum	Daily Max. = LTA × 3.11	727.41
Calculate 70% of the daily average	70% of Daily Avg. =	240.68
Calculate 85% of the daily average	85% of Daily Avg. =	292.25

No permit limitations needed if:	1512.19	≤	240.68		
Reporting needed if:	1512.19	>	240.68	but ≤	292.25
Permit limits may be needed if:	1512.19	>	292.25		

Permit limits may be needed for TDS

For Outfall 002, screening results above are more stringent for than those based on intermittent stream portion of the screening.

Outfall 005 (305)

The following values were used in Equation 2:

Values needed for screening:			**Data Source**
Q_E - Average effluent flow	**1.81**	MGD	2-year average of daily average
Q_S - Stream harmonic mean flow	**0.10**	cfs	Default for intermittent with pools
Q_E - Average effluent flow	**2.8005**	cfs	Calculated
C_A - TDS - ambient segment concentration	**134**	mg/L	2010 IP, Appendix D
C_C - TDS - segment criterion	**250**	mg/L	2014 TSWQS, Appendix A
C_E - TDS - average effluent concentration	**148**	mg/L	Average of daily average 2011-2015

Preliminary Calculations:

Load in River $(Q_S)(C_A)$	Effluent Load $(Q_E)(C_E)$	New Concentration Equation 2
13.4	414.47	147.52

No further screening for TDS needed if: 147.52 ≤ 250

Equation 2 is satisfied, and no further evaluation of the need for TDS limits is needed.

Outfall 006 (306)

No self-reported data available, calculations from previous permit action have been carried forward in the draft permit.

The following values were used in Equation 2:

Values needed for screening:			**Data Source**
Q_E - Average effluent flow	**4.94**	MGD	2-year average of daily average
Q_S - Stream harmonic mean flow	**0.10**	cfs	Default for intermittent with pools
Q_E - Average effluent flow	**7.6433**	cfs	Calculated
C_A - TDS - ambient segment concentration	**134**	mg/L	2010 IP, Appendix D
C_C - TDS - segment criterion	**250**	mg/L	2014 TSWQS, Appendix A
C_E - TDS - average effluent concentration	**1,872**	mg/L	Average of daily average 2011-2015

Preliminary Calculations:

Load in River $(Q_S)(C_A)$	Effluent Load $(Q_E)(C_E)$	New Concentration Equation 2
13.4	14308.29	1849.55

No further screening for TDS needed if: 1849.55 ≤ 250

Equation 2 is not satisfied, and further evaluation of the need for TDS limits is required as follows:

Calculate the WLA	WLA= $[C_C(Q_E+Q_S) - (Q_S)(C_A)]/Q_E$	251.52
Calculate the LTA	LTA = WLA × 0.93	233.91
Calculate the daily average	Daily Avg. = LTA × 1.47	343.85
Calculate the daily maximum	Daily Max. = LTA × 3.11	727.46
Calculate 70% of the daily average	70% of Daily Avg. =	240.69
Calculate 85% of the daily average	85% of Daily Avg. =	292.27

No permit limitations needed if:	1872	≤	240.69		
Reporting needed if:	1872	>	240.69	but ≤	292.27
Permit limits may be needed if:	1872	>	292.27		

Permit limits may be needed for TDS

For Outfall 006, screening results above are more stringent than those based on intermittent stream portion of the screening.

Water quality-based effluent limits calculated for TDS are summarized as follows:

Outfall	Tier I		Tier II		Tier III	
	Daily Avg (mg/L)	Daily Max (mg/L)	Daily Avg (mg/L)	Daily Max (mg/L)	Daily Avg (mg/L)	Daily Max (mg/L)
001	N/A	N/A	N/A	N/A	346	732
002	N/A	N/A	N/A	N/A	343	727
005	N/A	N/A	N/A	N/A	347	735

006	N/A	N/A	N/A	N/A	343	727
007	N/S	N/S	N/S	N/S	N/S	N/S

N/S = not screened

Sulfate

The screening value for sulfate is determined as follows:

Equation 1c: $SO_4\ C_{SV} = (TDS\ C_{SV}/TDS\ C_C) \times SO_4\ C_C$

where: $SO_4\ C_{SV}$ = Sulfate screening value (mg/L)
$TDS\ C_{SV}$ = TDS screening value (mg/L)
$TDS\ C_C$ = TDS criterion (mg/L) at the first downstream segment
$SO_4\ C_C$ = Sulfate criterion (mg/L) at the first downstream segment

Control measures for sulfate, which may include effluent limitations, are considered when the average concentration of sulfate in the effluent is greater than $SO_4\ C_{SV}$. When effluent limitations are established in the permit, the screening value is often used as the daily average effluent limit. The daily maximum limit is generally 2.12 times the daily average limit.

Outfalls 001, 002, 005, and 006 all discharge to streams within the watershed of Segment No. 0611, which has a sulfate criterion of 50 mg/L. Based on Equation 1c, the value of $SO_4\ C_{SV}$ for these outfalls is:

$$SO_4\ C_{SV} = (2{,}500\ mg/L/250\ mg/L) \times 50\ mg/L = 500\ mg/L$$

Because discharges may occur at any time, regardless of flow in Hampton Creek, a screening value of 500 mg/L was determined to be appropriate. Based on this value, a daily average sulfate limit would 500 mg/L, and a daily maximum TDS limit would be 1,060 mg/L.

Sulfate data provided in the application for Outfalls 001, 002, and 005. No self reported data for Sulfate was provided for 006 and Outfall 007 has never discharged and could therefore not be screened.

For Tier III, the average of the self-reported daily average sulfate values was compared to the daily average limit of 500 mg/L (see Table 8).

Table 8

Outfall	Average Sulfate (mg/L)
001	524
002	1060
005	86
006	No discharge

Hampton Creek is an intermittent stream with perennial pools; therefore, additional screening is necessary. Equation 2 (see below) compares the concentration of sulfate at the edge of the human health mixing zone downstream of the discharge (right side of equation) with the sulfate criterion for the first downstream classified segment (left side of equation – C_C). A permit limit is usually not required when Equation 2 is satisfied.

Equation 2: $C_C \geq [(Q_S)(C_A) + (Q_E)(C_E)]/[Q_E + Q_S]$

Outfall 001 (301)

The following values were used in Equation 2:

Values needed for screening:			**Data Source**
Q_E - Average effluent flow	**4.3**	MGD	2-year average of daily average
Q_S - Stream harmonic mean flow	**0.10**	cfs	Default for intermittent with pools
Q_E - Average effluent flow	**3.6654**	cfs	Calculated
C_A - sulfate - ambient segment concentration	**22**	mg/L	2010 IP, Appendix D
C_C - sulfate - segment criterion	**50**	mg/L	2014 TSWQS, Appendix A
C_E - sulfate - average effluent concentration	**524**	mg/L	self-reported data

Preliminary Calculations:

Load in River $(Q_S)(C_A)$	Effluent Load $(Q_E)(C_E)$	New Concentration Equation 2
2.2	1920.67	510.67

No further screening for sulfate needed if: 510.67 ≤ 50

Equation 2 is not satisfied, and further evaluation of the need for sulfate limits is required as follows:

Calculate the WLA	WLA= $[C_C(Q_E+Q_S) - (Q_S)(C_A)]/Q_E$	50.76
Calculate the LTA	LTA = WLA × 0.93	47.21
Calculate the daily average	Daily Avg. = LTA × 1.47	69.40
Calculate the daily maximum	Daily Max. = LTA × 3.11	146.82
Calculate 70% of the daily average	70% of Daily Avg. =	48.58
Calculate 85% of the daily average	85% of Daily Avg. =	58.99

No permit limitations needed if:	524	≤	48.58		
Reporting needed if:	524	>	48.58	but ≤	58.99
Permit limits may be needed if:	524	>	58.99		

Permit limits may be needed for sulfate

For Outfall 001, screening results above are more stringent for Tier III than those based on intermittent stream portion of the screening.

Outfall 002 (302)
The following values were used in Equation 2:

Values needed for screening:			**Data Source**
Q_E - Average effluent flow	**4.8**	MGD	2-year average of daily average
Q_S - Stream harmonic mean flow	**0.10**	cfs	Default for intermittent with pools
Q_E - Average effluent flow	**7.7362**	cfs	Calculated
C_A - sulfate - ambient segment concentration	**22**	mg/L	2010 IP, Appendix D
C_C - sulfate - segment criterion	**50**	mg/L	2014 TSWQS, Appendix A
C_E - sulfate - average effluent concentration	**1060**	mg/L	Average of daily max 2011-2015

Preliminary Calculations:

Load in River $(Q_S)(C_A)$	Effluent Load $(Q_E)(C_E)$	New Concentration Equation 2
2.2	8200.37	1046.75

No further screening for sulfate needed if: 1046.75 ≤ 50

Equation 2 is not satisfied, and further evaluation of the need for sulfate limits is required as follows:

Calculate the WLA	WLA= $[C_C(Q_E+Q_S) - (Q_S)(C_A)]/Q_E$	50.36
Calculate the LTA	LTA = WLA × 0.93	46.84
Calculate the daily average	Daily Avg. = LTA × 1.47	68.85
Calculate the daily maximum	Daily Max. = LTA × 3.11	145.66
Calculate 70% of the daily average	70% of Daily Avg. =	48.19
Calculate 85% of the daily average	85% of Daily Avg. =	58.52

No permit limitations needed if:	1060	≤	48.19		
Reporting needed if:	1060	>	48.19	but ≤	58.52
Permit limits may be needed if:	1060	>	58.52		

Permit limits may be needed for sulfate

For Outfall 002, screening results above are more stringent for Tier III than those based on intermittent stream portion of the screening.

Outfall 005 (305)

The following values were used in Equation 2:

Values needed for screening:			**Data Source**
Q_E - Average effluent flow	**5.5**	MGD	2-year average of daily average
Q_S - Stream harmonic mean flow	**0.10**	cfs	Default for intermittent with pools
Q_E - Average effluent flow	**2.8005**	cfs	Calculated
C_A - sulfate - ambient segment concentration	**22**	mg/L	2010 IP, Appendix D
C_C - sulfate - segment criterion	**50**	mg/L	2014 TSWQS, Appendix A
C_E - sulfate - average effluent concentration	**86**	mg/L	Average of daily max 2011-2015

Preliminary Calculations:

Load in River $(Q_S)(C_A)$	Effluent Load $(Q_E)(C_E)$	New Concentration Equation 2
2.2	240.84	83.79

No further screening for sulfate needed if: 83.79 ≤ 50

Equation 2 is not satisfied, and further evaluation of the need for sulfate limits is required as follows:

Calculate the WLA	WLA= $[C_C(Q_E+Q_S) - (Q_S)(C_A)]/Q_E$	51.00

Calculate the LTA	LTA = WLA × 0.93			47.43	
Calculate the daily average	Daily Avg. = LTA × 1.47			69.72	
Calculate the daily maximum	Daily Max. = LTA × 3.11			147.51	
Calculate 70% of the daily average	70% of Daily Avg. =			48.81	
Calculate 85% of the daily average	85% of Daily Avg. =			59.26	
No permit limitations needed if:	86	≤	48.81		
Reporting needed if:	86	>	48.81	but ≤	59.26
Permit limits may be needed if:	86	>	59.26		

Permit limits may be needed for sulfate

For Outfall 005, screening results above are more stringent for Tier III than those based on intermittent stream portion of the screening.

Outfall 006 (306)

No self-reported data available, calculations from previous permit action have been carried forward in the draft permit.

The following values were used in Equation 2:

Values needed for screening:			**Data Source**
Q_E - Average effluent flow	**4.94**	MGD	2-year average of daily average
Q_S - Stream harmonic mean flow	**0.10**	cfs	Default for intermittent with pools
Q_E - Average effluent flow	**7.6433**	cfs	Calculated
C_A - sulfate - ambient segment concentration	**22**	mg/L	2010 IP, Appendix D
C_C - sulfate - segment criterion	**50**	mg/L	2014 TSWQS, Appendix A
C_E - sulfate - average effluent concentration	**1235**	mg/L	Average of daily average 2011-2015

Preliminary Calculations:

Load in River $(Q_S)(C_A)$	Effluent Load $(Q_E)(C_E)$	New Concentration Equation 2
2.2	9439.496	1219.33

No further screening for TDS needed if: 1219.33 ≤ 50

Equation 2 is not satisfied, and further evaluation of the need for sulfate limits is required as follows:

Calculate the WLA	WLA= $[C_C(Q_E+Q_S) - (Q_S)(C_A)]/Q_E$			50.37	
Calculate the LTA	LTA = WLA × 0.93			46.84	
Calculate the daily average	Daily Avg. = LTA × 1.47			68.86	
Calculate the daily maximum	Daily Max. = LTA × 3.11			145.67	
Calculate 70% of the daily average	70% of Daily Avg. =			48.20	
Calculate 85% of the daily average	85% of Daily Avg. =			58.53	
No permit limitations needed if:	1235	≤	48.20		
Reporting needed if:	1235	>	48.20	but ≤	58.53

Permit limits may be needed if: 1235 > 58.53

Permit limits may be needed for sulfate

For Outfall 006, screening results above are more stringent for Tier III than those based on intermittent stream portion of the screening.

Water quality-based effluent limits calculated for sulfate are summarized follows:

Outfall	Tier I		Tier II		Tier III	
	Daily Avg (mg/L)	Daily Max (mg/L)	Daily Avg (mg/L)	Daily Max (mg/L)	Daily Avg (mg/L)	Daily Max (mg/L)
001	N/A	Report	N/A	Report	69	146
002	N/A	1,696	N/A	1,696	68	145
005	N/A	N/A	N/A	N/A	69	147
006	N/A	1,696	N/A	1,696	68	145
007	N/S	N/S	N/S	N/S	N/S	N/S

N/S = not screened
The daily average and daily maximum limits shown in the table above were calculated according to the procedures in the IP, and these limits are considered protective of water quality. The annual mass limit for sulfate at Outfall 001 is redundant and has been removed from the permit.

Attachment 1
STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Prepared for TPDES Permit No. WQ0002973000 issued on December 02, 2021
Appendix C
Comparison of Technology-Based Effluent Limits and Water Quality-Based Effluent Limits

The following table is a summary of technology-based effluent limitations calculated/assessed for the draft permit (*Technology-Based*), calculated/ assessed water quality-based effluent limitations (*Water Quality-Based*), effluent limitations in the existing permit (*Existing Permit*), and effluent limitations included in the draft permit (*Draft Permit*). Effluent limits in bold face type were those included in the draft permit.

Outfall	*Parameter*	*Technology-Based*		*Water Quality-Based*		*Existing Permit*	
		Daily Avg	*Daily Max*	*Daily Avg*	*Daily Max*	*Daily Avg*	*Daily Max*
		mg/L	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
001	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	TSS	35	70	—	—	**35**	**70**
	pH	6.0 SU, min	9.0 SU	6.0 SU, min	9.0 SU	**6.0 SU, min**	**9.0 SU**
002	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	TSS	35	70	—	—	**35**	**70**
	pH	6.0 SU, min	9.0 SU	6.0 SU, min	9.0 SU	**6.0 SU, min**	**9.0 SU**
005	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	TSS	35	70	—	—	**35**	**70**
	pH	6.0 SU, min	9.0 SU	6.0 SU, min	9.0 SU	**6.0 SU, min**	**9.0 SU**
006	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	TSS	35	70	—	—	**35**	**70**
	pH	6.0 SU, min	9.0 SU	6.0 SU, min	9.0 SU	**6.0 SU, min**	**9.0 SU**
007	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	TSS	35	70	—	—	**35**	**70**
	TDS	—	—	—	—	**Report**	**Report**
	Sulfate	—	—	—	—	**Report**	**Report**
	pH	6.0 SU, min	9.0 SU	6.0 SU, min	9.0 SU	**6.0 SU, min**	**9.0 SU**

Tier I

Outfall	*Parameter*	*Technology-Based*		*Water Quality-Based*		*Existing Permit*	
		Daily Avg	*Daily Max*	*Daily Avg*	*Daily Max*	*Daily Avg*	*Daily Max*
		mg/L	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
101	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	8.93 cfs, min	—	**8.93 cfs, min**	**—**
	Total Dissolved Solids	—	—	N/A	N/A	**4,000**	**8,480**
	Sulfate	—	—	N/A	Report	**N/A**	**1,696**
	Total Aluminum	—	—	**0.834**	**1.765**	0.881	1.863
	Total Copper	—	—	**0.032**	**0.068**	0.047	0.099
	Total Nickel	—	—	N/A	**1.771**	N/A	1.868
	Total Zinc	—	—	**0.319**	**0.675**	0.343	0.726
102	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	8.93 cfs, min	—	**8.93 cfs, min**	**—**
	Total Dissolved Solids	—	—	N/A	N/A	**Report**	**Report**
	Sulfate	—	—	N/A	1,696	**N/A**	**1,696**
105	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	8.93 cfs, min	—	**8.93 cfs, min**	**—**
	Total Dissolved Solids	—	—	N/A	N/A	**Report**	**Report**
	Sulfate	—	—	N/A	N/A	**N/A**	**1,696**
106	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	8.93 cfs, min	—	**8.93 cfs, min**	**—**
	Total Dissolved Solids	—	—	N/A	N/A	**Report**	**Report**
	Sulfate	—	—	N/A	1,696	**Report**	**1,696**
	Total Aluminum	—	—	**0.834**	**1.765**	1.246	2.636
	Total Zinc	—	—	**N/A**	**0.675**	N/A	0.8

Tier II

Outfall	*Parameter*	*Technology-Based*		*Water Quality-Based*		*Existing Permit (Tier I)*	
		Daily Avg	*Daily Max*	*Daily Avg*	*Daily Max*	*Daily Avg*	*Daily Max*
		mg/L	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
201	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	**4.46 cfs, min**	**8.92 cfs**	—	—
	Total Dissolved Solids	—	—	N/A	N/A	**4,000**	**8,480**
	Sulfate	—	—	N/A	Report	**N/A**	**1,696**
	Total Aluminum	—	—	**0.834**	**1.765**	0.857	1.814
	Total Copper	—	—	**0.032**	**0.068**	0.033	0.070
	Total Nickel	—	—	**N/A**	**1.771**	N/A	1.820
	Total Zinc	—	—	**0.319**	**0.675**	0.328	0.694
202	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	**4.46 cfs, min**	**8.92 cfs**	—	—
	Total Dissolved Solids	—	—	N/A	N/A	**Report**	**Report**
	Sulfate	—	—	N/A	1,696	**N/A**	**1,696**
205	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	**4.46 cfs, min**	**8.92 cfs**	—	—
	Total Dissolved Solids	—	—	N/A	N/A	**Report**	**Report**
	Sulfate	—	—	N/A	N/A	**N/A**	**1,696**
206	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	**4.46 cfs, min**	**8.92 cfs**	—	—
	Total Dissolved Solids	—	—	N/A	N/A	**Report**	**Report**
	Sulfate	—	—	N/A	1,696	**Report**	**1,696**
	Total Aluminum	—	—	**0.834**	**1.765**	0.905	1.914
	Total Zinc	—	—	**N/A**	**0.675**	N/A	0.732

Tier III

Outfall	*Parameter*	*Technology-Based*		*Water Quality-Based*		*Existing Permit (Tier I)*	
		Daily Avg	*Daily Max*	*Daily Avg*	*Daily Max*	*Daily Avg*	*Daily Max*
		mg/L	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
301	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	Report cfs	4.45 cfs	**Report cfs**	**4.45 cfs**
	Total Dissolved Solids	—	—	346	732	**346**	**732**
	Sulfate	—	—	69	146	**69**	**146**
	Total Aluminum	—	—	**0.834**	**1.765**	0.835	1.766
	Total Copper	—	—	0.029	0.061	**0.029**	**0.061**
	Total Nickel	—	—	**0.124**	0.264	0.125	**0.264**
	Total Zinc	—	—	0.319	**0.675**	**0.319**	0.676
302	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	Report cfs	4.45 cfs	**Report cfs**	**4.45 cfs**
	Total Dissolved Solids	—	—	343	727	**343**	**727**
	Sulfate	—	—	68	145	**68**	**145**
305	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	Report cfs	4.45 cfs	**Report cfs**	**4.45 cfs**
	Total Dissolved Solids	—	—	347	735	**347**	**735**
	Sulfate	—	—	69	147	**69**	**147**
306	Flow	Report MGD	Report MGD	—	—	**Report MGD**	**Report MGD**
	River Flow	—	—	Report cfs	4.45 cfs	**Report cfs**	**4.45 cfs**
	Total Dissolved Solids	—	—	343	727	**343**	**727**
	Sulfate	—	—	68	145	**68**	**145**
	Total Aluminum	—	—	**0.834**	**1.765**	0.835	1.766
	Total Zinc	—	—	0.319	**0.675**	**0.319**	0.676