Administrative 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. Application Materials

Plain Language Summary for Texas Pollutant Discharge Elimination System (TPDES) Permit Amendment Application

The City of Boyd (CN600734487) operates the City of Boyd Wastewater Treatment Facility RN101721652. It is an activated sludge process plant operated in the complete mix mode. The facility is located at 2,200 feet northeast of the intersection of FM 730 and SH 114, in the City of Boyd, Wise County, Texas 76023.

This application is for an amendment to increase discharge from an annual average flow of 240,000 gallons per day of treated domestic wastewater to 480,000 in Phase 2 and to 980,000 in Final Phase via Outfall 001.

Discharges from the facility are expected to contain five-day biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), and *Escherichia coli*. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a mechanical bar screen, aeration basins, final clarifiers, sludge digesters, a sludge dewatering rotary press, sludge dewatering beds, and chlorine contact chambers.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0010131001

APPLICATION. City of Boyd, P.O. Box 216, Boyd, Texas 76023, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010131001 (EPA I.D. No. TX0022632) to authorize an increase to the discharge of treated wastewater to a volume not to exceed a daily average flow of 980,000 gallons per day. The domestic wastewater treatment facility is located approximately 2,200 feet northeast of the intersection of Farm-to-Market Road 730 and State Highway 114, in the city of Boyd, Wise County, Texas 76023. The discharge route is from the plant site to a man-made ditch (not a water in the state), thence to West Fork Trinity River Below Bridgeport Reservoir. TCEQ received this application on October 3, 2024. The permit application will be available for viewing and copying at Boyd City Hall, 731 East Rock Island Avenue, Boyd, in Wise County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. 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=-97.551388,33.081111&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 City of Boyd at the address stated above or by calling Mr. Dwayne Taylor, City Administrator, at 940-433-8400.

Issuance Date: October 31, 2024

Leah Whallon

From: Gary Burton <gburton@belcheff.com>
Sent: Monday, October 14, 2024 6:16 PM
To: Leah Whallon
Cc: 'Michael Anderson'; rboitsov@belcheff.com; 'W Taylor'
Subject: City of Boyd Permit No. WQ0010131001 Response to NOD1
Attachments: Land owner mailing labels-A5160.docx; NOD1 Response Package.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Leah:
Please see attached response to your comments.

Thank you,
Gary L. Burton, III, PE

Belcheff & Associates, Inc.
Texas Reg. No. F-368
3575 Lone Star Circle, Ste. 124
Fort Worth, Texas 76177

817-431-1800 (Office)
817-431-1850 (Fax)
903- 571-1273 (Cell)

Belcheff & Associates, Inc.

Municipal Engineering & Management
TBPE Reg. No. F-368

3575 Lone Star Circle, Ste. 124
Fort Worth, Texas 76177

October 15, 2024

Leah Whallon
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission on Environmental Quality
Leah.whallon@tceq.texas.gov

Re: Application to Amend Permit NO. WQ0010131001 (EPA I.D. TX0022632)
Applicant Name: City of Boyd (CN600734487)
Site Name: City of Boyd WWTP (RN101721652)
Type of Application: Major amendment with renewal

Dear Ms. Whallon:

We received your Notice of Deficiency 1 letter dated October 11, 2024, and offer the following responses to your numbered items.

1. The correct final phase flow is 0.98 MGD. The following revised pages are attached:
    - Admin Report 1.0 page 3
    - Attachment 4 – Flow Diagram 3
    - Attachment 5 – Final Phase, Sheet 3 of 3
    - Attachment 8 – Final Phase Solids Management Plan
2. The correct address for public viewing is 731 East Rock Island Avenue. Revised Admin Report 1.0 page 6 is attached.
3. The USGS and Affected Landowner Maps are correct. The following revised pages are attached:
    - SPIF page 2
    - Admin Report 1.0 page 8
    - Technical Report – Worksheet 2.0 page 27-29
4. A revised landowner list in the requested Avery 5160 format in Word doc is attached.
5. I have reviewed the NORI description. Attached is an edited page 2 of your letter with red marks of items to change.

Thank you for your assistance. Please feel free to contact me with any questions or comments concerning this application by phone at 903-571-1273 or email at gburton@belcheff.com

Sincerely,

Gary L. Burton, III, P.E.
Project Engineer

cc: Dwayne Taylor, City Administrator *via e-mail*
Mike Anderson, P.E., City Engineer *via e-mail*
Roman Boitsov, P.E., City Engineer *via e-mail*

c. Check the box next to the appropriate permit type.

- ☒ TPDES Permit
- ☐ TLAP
- ☐ TPDES Permit with TLAP component
- ☐ Subsurface Area Drip Dispersal System (SADDS)

d. Check the box next to the appropriate application type

- ☐ New
- ☒ Major Amendment *with* Renewal
- ☐ Major Amendment *without* Renewal
- ☐ Renewal without changes
- ☐ Minor Amendment *with* Renewal
- ☐ Minor Amendment *without* Renewal
- ☐ Minor Modification of permit

e. For amendments or modifications, describe the proposed changes: Expand existing 0.24 MGD plant to 0.98 MGD plant in two phases.

f. For existing permits:

Permit Number: WQ00 10131001

EPA I.D. (TPDES only): TX 0022632

Expiration Date: 12/23/2026

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 26)

A. The owner of the facility must apply for the permit.

What is the Legal Name of the entity (applicant) applying for this permit?

City of Boyd

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

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

CN: **600734487**

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix: Mr. Last Name, First Name: Taylor, Dwayne

Title: City Administrator Credential: N/A

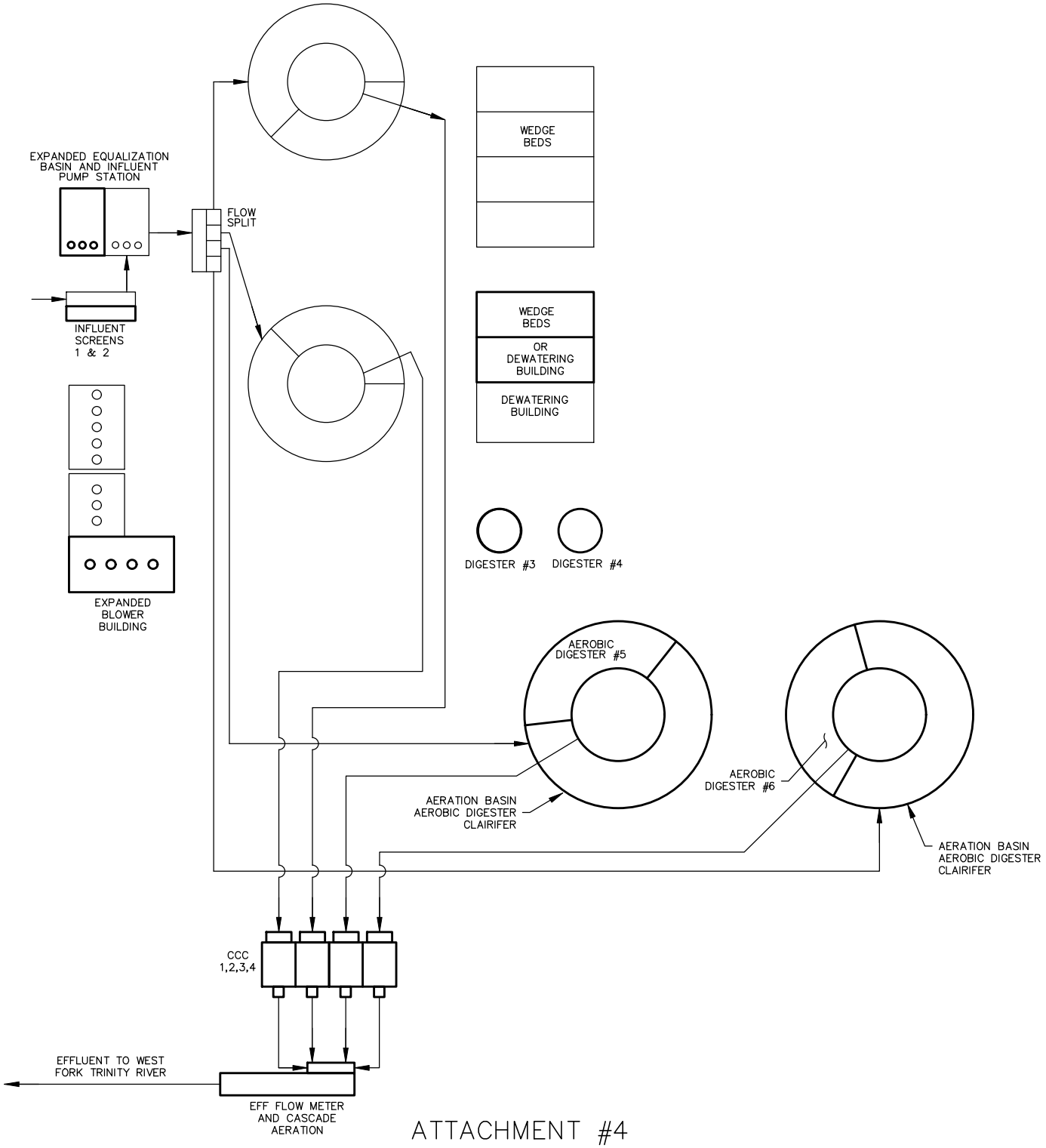
B. Co-applicant information. Complete this section only if another person or entity is required to apply as a co-permittee.

What is the Legal Name of the co-applicant applying for this permit?

N/A

(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the

FLOW DIAGRAM #3

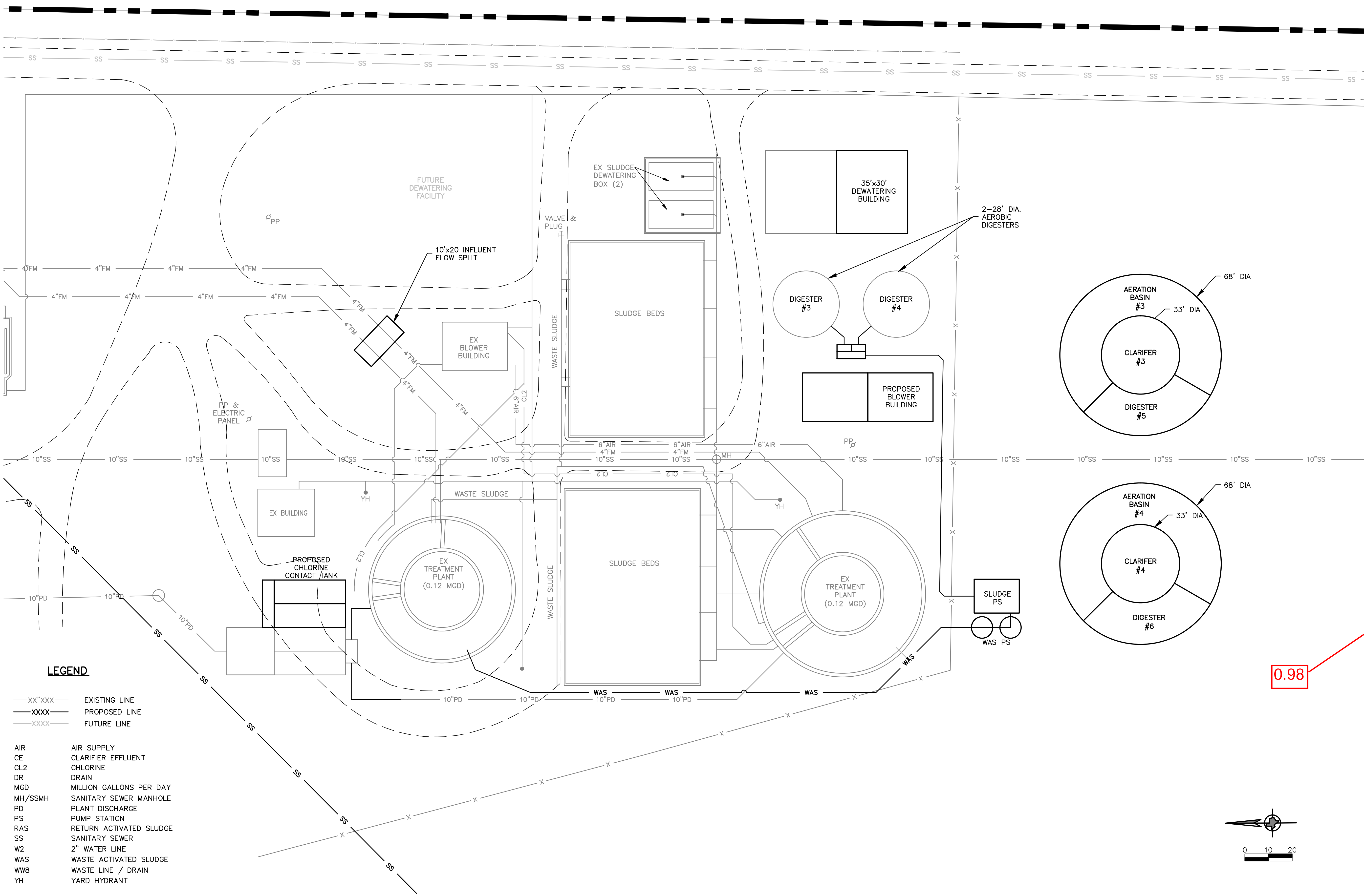


ATTACHMENT #4
FLOW DIAGRAM 3
FINAL PHASE – 0.98 MGD

CITY OF BOYD

05 Sept 2024

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3575 Lone Star Circle
Suite 124
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1850
TBPE Reg. No. F-368



LEGEND

XX"XXX	EXISTING LINE
XXXX	PROPOSED LINE
XXXX	FUTURE LINE

AIR	AIR SUPPLY
CE	CLARIFIER EFFLUENT
CL2	CHLORINE
DR	DRAIN
MGD	MILLION GALLONS PER DAY
MH/SSMH	SANITARY SEWER MANHOLE
PD	PLANT DISCHARGE
PS	PUMP STATION
RAS	RETURN ACTIVATED SLUDGE
SS	SANITARY SEWER
W2	2" WATER LINE
WAS	WASTE ACTIVATED SLUDGE
WWB	WASTE LINE / DRAIN
YH	YARD HYDRANT

0 10 20

© BELCHEFF & ASSOCIATES, INC. 2024

REVISIONS

#	DESCRIPTION	DATE

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3575 Lone Star Circle
Suite 124
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1850
TBPE Reg. No. F-368

CITY OF BOYD
SITE DRAWING
ATTACHMENT 5
FINAL PHASE-0.99 MGD

0.98

DATE: 11 Sept 2024
SCALE: 1"=20'
PROJECT:
DRAWN BY: AL/HK
APPROV. BY: MLA

SHEET 3 OF 3

CITY OF BOYD
WWTP PERMIT AMENDMENT WITH RENEWAL APPLICATION
ATTACHMENT 8-SOLIDS MANAGEMENT PLANS
TPDES PERMIT NO. WQ0010131-001

SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN-FINAL PHASE (0.98 MGD, 2,477 LBS BOD_5/DAY)

Dimensions and capacities of aerobic digester

TCEQ design volume	20 cubic feet/lb BOD5/day
TCEQ minimum sludge retention time	15 days
Digester volume	49,932 cubic feet (20 cubic feet/lb BOD_5/day)
Digester dimensions	1 unit @ 38 feet X 15 feet X 9.5 feet deep & 1 unit @ 40 feet X 16.25 feet X 9.5 feet deep & 2 units @ 28 feet diameter X 10 feet deep & 4 units @ 24.7 feet X 17.5 feet X 15 feet deep
Digester sludge retention time	56 days

BOD5 removal — Influent concentration = 300 mg/1
Effluent concentration = 20 mg/1
Net removal = 280 mg/1

Solids generated	100% flow	75% flow	50% flow	25% flow
Pounds BOD5/day removed	2,312	1,734	1,156	578
Pounds of dry sludge produced*	728	546	366	182
Pounds of wet sludge produced**	56,018	42,014	28,010	14,005
Volume of wet sludge produced	6,717 gal	5,038 gal	3,360 gal	1,680 gal

* Assuming 0.315 pounds of dry sludge produced per pound of BOD5 removed.
** Assuming 1.3% solids

MLSS operating range = 5,440 mg/1 (see page 3 design calculations)

Sludge will stay in the digester, clear liquor will be decanted off the digester and returned to the headworks. Sludge is wasted from the final clarifiers to the aerobic digester. Some sludge from the clarifier is also returned to the aeration basins.

Removal schedule (days)	100%flow	75% flow	50% flow	25% flow
Days between sludge removal	56	75	112	224

Sludge will be removed from the digester when the digester is full of thickened solids. Digested sludge will be treated with polymer and pumped to the dewatering box in the existing phase and to the proposed rotary or screw press in the final phase. Then sludge will be hauled by a registered transporter to the designated landfill for disposal.

B. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package

Indicate by a check mark the preferred method for receiving the first notice and instructions:

X E-mail Address

☐ Fax

X Regular Mail

C. Contact permit to be listed in the Notices

Prefix: **Mr.** Last Name, First Name: **Taylor, Dwayne**

Title: **City Administrator** Credential: N/A

Organization Name: **City of Boyd**

Mailing Address: **PO Box 216** City, State, Zip Code: **Boyd, TX 76023**

Phone No.: **940-433-8400** E-mail Address: **wtaylor@cityofboyd.com**

D. Public Viewing Information

If the facility or outfall is located in more than one county, a public viewing place for each county must be provided.

Public building name: Boyd City Hall

Location within the building: Lobby

Physical Address of Building: 731 E. Rock Island Ave.

City: Boyd County: Wise

Contact (Last Name, First Name): Taylor, Dwayne

Phone No.: **940-433-8400** Ext.: N/A

E. Bilingual Notice Requirements

This information **is required** for **new, major amendment, minor amendment or minor modification, and renewal** applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

   ☐ Yes X No

   If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

   ☐ Yes ☐ No

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Dwayne Taylor

Credential (P.E, P.G., Ph.D., etc.): N/A

Title: City Administrator

Mailing Address: PO Box 216

City, State, Zip Code: Boyd, TX 76023

Phone No.: 940-433-8400 Ext.: N/A Fax No.: 940-433-8241

E-mail Address: wtaylor@cityofboyd.com

2. List the county in which the facility is located: Wise
3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

N/A

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

The effluent is discharged to a man-made ditch on city property, then to the West Fork Trinity River below Bridgeport Reservoir in Segment 0810 of Trinity River Basin.

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- ☐ Proposed access roads, utility lines, construction easements
- ☐ Visual effects that could damage or detract from a historic property's integrity
- ☐ Vibration effects during construction or as a result of project design
- ☐ Additional phases of development that are planned for the future
- ☐ Sealing caves, fractures, sinkholes, other karst features

E. Owner of effluent disposal site:

Prefix: **N/A** Last Name, First Name: **N/A**

Title: **N/A** Credential: N/A

Organization Name: N/A

Mailing Address: N/A City, State, Zip Code: N/A

Phone No.: N/A E-mail Address: N/A

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: N/A

F. Owner sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant)::

Prefix: N/A Last Name, First Name: N/A

Title: N/A Credential: N/A

Organization Name: N/A

Mailing Address: N/A City, State, Zip Code: N/A

Phone No.: N/A E-mail Address: N/A

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: N/A

Section 10. TPDES Discharge Information (Instructions Page 31)

A. Is the wastewater treatment facility location in the existing permit accurate?

☒ Yes ☐ No

If **no**, **or a new permit application**, please give an accurate description:

N/A

B. Are the point(s) of discharge and the discharge route(s) in the existing permit correct?

☐ Yes ☒ No

If **no**, **or a new or amendment permit application**, provide an accurate description of the point of discharge and the discharge route to the nearest classified segment as defined in 30 TAC Chapter 307:

To a man-made ditch on City of Boyd property, then to the West Fork Trinity River in Segment 0810.

City nearest the outfall(s): Boyd

County in which the outfalls(s) is/are located: Wise

C. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

☐ Yes ☒ No

Section 3. Classified Segments (Instructions Page 64)

Is the discharge directly into (or within 300 feet of) a classified segment?

☒ Yes ☐ No

If yes, this Worksheet is complete.

If no, complete Sections 4 and 5 of this Worksheet.

Section 4. Description of Immediate Receiving Waters (Instructions Page 65)

Name of the immediate receiving waters: Click to enter text.

A. Receiving water type

Identify the appropriate description of the receiving waters.

☐ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: Click to enter text.

Average depth of the entire water body, in feet: Click to enter text.

Average depth of water body within a 500-foot radius of discharge point, in feet: Click to enter text.

☒ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click to enter text.

B. Flow characteristics

If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one).

☒ Intermittent - dry for at least one week during most years

☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses

☐ Perennial - normally flowing

Check the method used to characterize the area upstream (or downstream for new dischargers).

☐ USGS flow records

☐ Historical observation by adjacent landowners

☐ Personal observation

☒ Other, specify: Flow in ditch is effluent only.

C. Downstream perennial confluences

List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point.

West Fork Trinity River, Classified Segment 0810 at 980' below discharge pipe. Flow in ditch is effluent only.

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

☐ Yes ☐ No

If yes, discuss how.

N/A

E. Normal dry weather characteristics

Provide general observations of the water body during normal dry weather conditions.

Flow in ditch is only plant effluent to river.

Date and time of observation: N/A

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☒ No

Section 5. General Characteristics of the Waterbody (Instructions Page 66)

A. Upstream influences

Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

☐ Oil field activities
☐ Upstream discharges
☐ Septic tanks
☐ Urban runoff
☐ Agricultural runoff
☐ Other(s), specify: Click to enter text.

B. Waterbody uses

Observed or evidences of the following uses. Check all that apply.

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Domestic water supply
- ☐ Park activities
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation
- ☐ Industrial water supply
- ☐ Other(s), specify: Click to enter text.

C. Waterbody aesthetics

Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

- ☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional
- ☐ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored
- ☐ Common Setting: not offensive; developed but uncluttered; water may be colored or turbid
- ☐ Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

to a man-made ditch on city property

980,000

5. The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

   APPLICATION. City of Boyd, P.O. Box 216, Boyd, Texas 76023, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010131001 (EPA I.D. No. TX0022632) to authorize an increase to the discharge of treated wastewater to a volume not to exceed a daily average flow of ~~960,000~~ gallons per day (pending response). The domestic wastewater treatment facility is located approximately 2,200 feet northeast of the intersection of Farm-to-Market Road 730 and State Highway 114, in the city of Boyd, Wise County, Texas 76023. The discharge route is from the plant site ~~directly~~ to West Fork Trinity River Below Bridgeport Reservoir (pending response). TCEQ received this application on October 3, 2024. The permit application will be available for viewing and copying at Boyd City Hall, 731 East Rock Island Avenue, Boyd, in Wise County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. 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=-97.551388,33.081111&level=18

   Further information may also be obtained from City of Boyd at the address stated above or by calling Mr. Dwayne Taylor, City Administrator, at 940-43-8400.

Please submit the complete response, addressed to my attention by October 25, 2024. If you should have any questions, please do not hesitate to contact me by phone at (512) 239-0084 or by email at leah.whallon@tceq.texas.gov

Sincerely,

Leah Whallon

Leah Whallon
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality

lcw

cc: Mr. Roman Boitsov, P.E., City Engineer, Belcheff & Associates, Inc., 3575 Lone Star Circle, Fort Worth, Texas 76177

CHARLES STEVEN WOLFE
PO BOX 411
BOYD TX 76023

PEGGY JEAN COTTON LIFE ESTATE
PO BOX 101
BOYD, TX 76023

MARTIN TRUCK ENTERPRISES
PO Box 485
BOYD TX 76023

CORTNEY R HARPER
8325 FM 51
BOYD TX 76023

JOSEPH ABEL DEAN
401 ABEL LANE
BOYD TX 76023

C AND S INVESTMENTS
PO BOX 411
BOYD TX 76023

CITY OF BOYD
PO BOX 164
BOYD TX 76023

RICK HARPER
PO BOX 919
RHOME TX 76078

JOSEPH AND DONNA DEAN
401 ABEL LANE
BOYD TX 76023

WILLIAM AND PAMELA HUDDLESTON
PO BOX 622
BOYD TX 76023

RICHARD PIETILA AND TRACY SPEAR
1211 HLAVEK
DECATUR TX 76234

WASTEWATER TREATMENT PLANT PERMIT AMENDMENT WITH RENEWAL APPLICATION

TPDES PERMIT NO. WQ0010131-001
EPA ID NO. TX0022632

October 2024

Prepared by:
3575 Lone Star Circle, Suite. 124
Fort Worth, Texas 76177
TBPE Reg. No. F-368
817-431-1800 Fax 817-431-1850

CITY OF BOYD
WASTEWATER TREATMENT PLANT
PERMIT AMENDMENT WITH RENEWAL APPLICATION

TPDES PERMIT NO. WQ0010131-001
10/4/2024

Table of Contents

Exhibits

Attachments

Exhibit 1.
Payment Submittal Form (copy) and Application Checklist

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: **City of Boyd**

PERMIT NUMBER (If new, leave blank): WQ00 **WQ0010131001**

Indicate if each of the following items is included in your application.

	Y	N		Y	N
Administrative Report 1.0	☒	☐	Original USGS Map	X	☐
Administrative Report 1.1	☒	☐	Affected Landowners Map	X	☐
SPIF	☒	☐	Landowner Disk or Labels	X	☐
Core Data Form	☒	☐	Buffer Zone Map	X	☐
Public Involvement Plan Form	☒	☐	Flow Diagram	X	☐
Technical Report 1.0	☒	☐	Site Drawing	X	☐
Technical Report 1.1	☒	☐	Original Photographs	X	☐
Worksheet 2.0	☒	☐	Design Calculations	X	☐
Worksheet 2.1	☐	☒	Solids Management Plan	X	☐
Worksheet 3.0	☐	☒	Water Balance	☐	X
Worksheet 3.1	☐	☒			
Worksheet 3.2	☐	☒			
Worksheet 3.3	☐	☒			
Worksheet 4.0	☐	☒			
Worksheet 5.0	☐	☒			
Worksheet 6.0	☒	☐			
Worksheet 7.0	☐	☒			

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region_____
Permit Number _____

CITY OF BOYD
WASTEWATER TREATMENT PLANT
PERMIT AMENDMENT WITH RENEWAL APPLICATION

TPDES PERMIT NO. WQ0010131-001

Exhibit 2.
Administrative Report 1.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: **City of Boyd**

PERMIT NUMBER (If new, leave blank): WQ00 **WQ0010131001**

Indicate if each of the following items is included in your application.

	Y	N
Administrative Report 1.0	☒	☐
Administrative Report 1.1	☒	☐
SPIF	☒	☐
Core Data Form	☒	☐
Public Involvement Plan Form	☒	☐
Technical Report 1.0	☒	☐
Technical Report 1.1	☒	☐
Worksheet 2.0	☒	☐
Worksheet 2.1	☐	☒
Worksheet 3.0	☐	☒
Worksheet 3.1	☐	☒
Worksheet 3.2	☐	☒
Worksheet 3.3	☐	☒
Worksheet 4.0	☐	☒
Worksheet 5.0	☐	☒
Worksheet 6.0	☒	☐
Worksheet 7.0	☐	☒

	Y	N
Original USGS Map	X	☐
Affected Landowners Map	X	☐
Landowner Disk or Labels	X	☐
Buffer Zone Map	X	☐
Flow Diagram	X	☐
Site Drawing	X	☐
Original Photographs	X	☐
Design Calculations	X	☐
Solids Management Plan	X	☐
Water Balance	☐	X

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region_____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

For any questions about this form, please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 26)

Indicate the amount submitted for the application fee (check only one).

Flow	New/Major Amendment	Renewal
<0.05 MGD	$350.00 ☐	$315.00 ☐
≥0.05 but <0.10 MGD	$550.00 ☐	$515.00 ☐
≥0.10 but <0.25 MGD	$850.00 ☐	$815.00 ☐
≥0.25 but <0.50 MGD	$1,250.00 ☐	$1,215.00 ☐
≥0.50 but <1.0 MGD	$1,650.00 ☒	$1,615.00 ☐
≥1.0 MGD	$2,050.00 ☐	$2,015.00 ☐

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed — Check/Money Order Number: Click to enter text.

Check/Money Order Amount: Click to enter text.

Name Printed on Check: Click to enter text.

EPAY — Voucher Number: Click to enter text.

Copy of Payment Voucher enclosed? Yes ☐

Section 2. Type of Application (Instructions Page 26)

a. Check the box next to the appropriate authorization type.

☒ Publicly-Owned Domestic Wastewater

☐ Privately-Owned Domestic Wastewater

☐ Conventional Wastewater Treatment

b. Check the box next to the appropriate facility status.

☒ Active ☐ Inactive

c. Check the box next to the appropriate permit type.

- ☒ TPDES Permit
- ☐ TLAP
- ☐ TPDES Permit with TLAP component
- ☐ Subsurface Area Drip Dispersal System (SADDS)

d. Check the box next to the appropriate application type

- ☐ New
- ☒ Major Amendment *with* Renewal
- ☐ Major Amendment *without* Renewal
- ☐ Renewal without changes
- ☐ Minor Amendment *with* Renewal
- ☐ Minor Amendment *without* Renewal
- ☐ Minor Modification of permit

e. For amendments or modifications, describe the proposed changes: Expand existing 0.24 MGD plant to 0.96 MGD plant in two phases.

f. For existing permits:

Permit Number: WQ00 10131001

EPA I.D. (TPDES only): TX 0022632

Expiration Date: 12/23/2026

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 26)

A. The owner of the facility must apply for the permit.

What is the Legal Name of the entity (applicant) applying for this permit?

City of Boyd

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

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

CN: **600734487**

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix: Mr. Last Name, First Name: Taylor, Dwayne

Title: City Administrator Credential: N/A

B. Co-applicant information. Complete this section only if another person or entity is required to apply as a co-permittee.

What is the Legal Name of the co-applicant applying for this permit?

N/A

(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the

legal documents forming the entity.)

If the co-applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at: http://www15.tceq.texas.gov/crpub/

CN: Click to enter text.

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix: Click to enter text. Last Name, First Name: Click to enter text.

Title: Click to enter text. Credential: Click to enter text.

Provide a brief description of the need for a co-permittee: Click to enter text.

C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0. Exhibit 4. Core Data Form

Section 4. Application Contact Information (Instructions Page 27)

This is the person(s) TCEQ will contact if additional information is needed about this application. Provide a contact for administrative questions and technical questions.

A. Prefix: Mr. Last Name, First Name: Taylor, Dwayne

Title: City Administrator Credential: N/A

Organization Name: City of Boyd

Mailing Address: PO Box 216 City, State, Zip Code: Boyd, TX 76023

Phone No.: 940-433-8400 E-mail Address: wtaylor@cityofboyd.com

Check one or both: X Administrative Contact X Technical Contact

B. Prefix: Mr. Last Name, First Name: Boitsov, Roman

Title: City Engineer Credential: P.E.

Organization Name: Belcheff & Associates, Inc.

Mailing Address: 3575 Lone Star Cir City, State, Zip Code: Fort Worth, TX 76177

Phone No.: 817-431-1800 E-mail Address: rboitsov@belcheff.com

Check one or both: Administrative Contact X Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

Provide the names and contact information for two individuals that can be contacted throughout the permit term.

A. Prefix: **Mr.** Last Name, First Name: **Taylor, Dwayne**

Title: **City Administrator** Credential: N/A

Organization Name: **City of Boyd**

Mailing Address: **PO Box 216** City, State, Zip Code: **Boyd, TX 76023**

Phone No.: **940-433-8400** E-mail Address: **wtaylor@cityofboyd.com**

B. Prefix: **Mr.** Last Name, First Name: **Boitsov, Roman**

Title: **City Engineer** Credential: P.E.

Organization Name: **Belcheff & Associates, Inc.**

Mailing Address: **3575 Lone Star Cir** City, State, Zip Code: **Fort Worth, TX 76177**

Phone No.: **817-431-1800** E-mail Address: **rboitsov@belcheff.com**

Section 6. Billing Contact Information (Instructions Page 27)

The permittee is responsible for paying the annual fee. The annual fee will be assessed to permits ***in effect on September 1 of each year***. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (using form TCEQ-20029).

Prefix: **Mr.** Last Name, First Name: **Taylor, Dwayne**

Title: **City Administrator** Credential: N/A

Organization Name: **City of Boyd**

Mailing Address: **PO Box 216** City, State, Zip Code: **Boyd, TX 76023**

Phone No.: **940-433-8400** E-mail Address: **wtaylor@cityofboyd.com**

Section 7. DMR/MER Contact Information (Instructions Page 27)

Provide the name and complete mailing address of the person delegated to receive and submit Discharge Monitoring Reports (DMR) (EPA 3320-1) or maintain Monthly Effluent Reports (MER).

Prefix: **Mr.** Last Name, First Name: **Taylor, Dwayne**

Title: **City Administrator** Credential: N/A

Organization Name: **City of Boyd**

Mailing Address: **PO Box 216** City, State, Zip Code: **Boyd, TX 76023**

Phone No.: **940-433-8400** E-mail Address: **wtaylor@cityofboyd.com**

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: **Ms.** Last Name, First Name: Dast, Sherrie

Title: **City Secretary** Credential: N/A

Organization Name: **City of Boyd**

Mailing Address: **PO Box 216** City, State, Zip Code: **Boyd, TX 76023**

Phone No.: **940-433-5166** E-mail Address: sdast@cityofboyd.com

B. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package

Indicate by a check mark the preferred method for receiving the first notice and instructions:

X E-mail Address

☐ Fax

X Regular Mail

C. Contact permit to be listed in the Notices

Prefix: **Mr.** Last Name, First Name: **Taylor, Dwayne**

Title: **City Administrator** Credential: N/A

Organization Name: **City of Boyd**

Mailing Address: **PO Box 216** City, State, Zip Code: **Boyd, TX 76023**

Phone No.: **940-433-8400** E-mail Address: **wtaylor@cityofboyd.com**

D. Public Viewing Information

If the facility or outfall is located in more than one county, a public viewing place for each county must be provided.

Public building name: Boyd City Hall

Location within the building: Lobby

Physical Address of Building: 100 E. Rock Island Ave.

City: Boyd County: Wise

Contact (Last Name, First Name): Taylor, Dwayne

Phone No.: **940-433-8400** Ext.: N/A

E. Bilingual Notice Requirements

This information **is required** for **new, major amendment, minor amendment or minor modification, and renewal** applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

   ☐ Yes X No

   If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

   ☐ Yes ☐ No

3. Do the students at these schools attend a bilingual education program at another location?

   ☐ Yes ☐ No

4. Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC §89.1205(g)?

   ☐ Yes ☐ No

5. If the answer is **yes** to **question 1, 2, 3, or 4**, public notices in an alternative language are required. Which language is required by the bilingual program? Click to enter text.

F. Plain Language Summary Template

Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment.

Attachment: Click to enter text.

G. Public Involvement Plan Form

Complete the Public Involvement Plan Form (TCEQ Form 20960) for each application for a **new permit or major amendment to a permit** and include as an attachment.

Attachment: Click to enter text.

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 29)

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN** 101721652

Search the TCEQ's Central Registry at http://www15.tceq.texas.gov/crpub/ to determine if the site is currently regulated by TCEQ.

B. Name of project or site (the name known by the community where located):

City of Boyd Wastewater Treatment Facility

C. Owner of treatment facility: City of Boyd

Ownership of Facility: X Public ☐ Private ☐ Both ☐ Federal

D. Owner of land where treatment facility is or will be:

Prefix: N/A Last Name, First Name: **N/A**

Title: **N/A** Credential: **N/A**

Organization Name: City of Boyd

Mailing Address: PO Box 216 City, State, Zip Code: Boyd, TX 76023

Phone No.: 940-433-8400 E-mail Address: wtaylor@cityofboyd.com

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: N/A

E. Owner of effluent disposal site:

Prefix: **N/A** Last Name, First Name: **N/A**

Title: **N/A** Credential: N/A

Organization Name: N/A

Mailing Address: N/A City, State, Zip Code: N/A

Phone No.: N/A E-mail Address: N/A

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: N/A

F. Owner sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant)::

Prefix: N/A Last Name, First Name: N/A

Title: N/A Credential: N/A

Organization Name: N/A

Mailing Address: N/A City, State, Zip Code: N/A

Phone No.: N/A E-mail Address: N/A

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: N/A

Section 10. TPDES Discharge Information (Instructions Page 31)

A. Is the wastewater treatment facility location in the existing permit accurate?

☒ Yes ☐ No

If **no**, **or a new permit application**, please give an accurate description:

N/A

B. Are the point(s) of discharge and the discharge route(s) in the existing permit correct?

☒ Yes ☐ No

If **no**, **or a new or amendment permit application**, provide an accurate description of the point of discharge and the discharge route to the nearest classified segment as defined in 30 TAC Chapter 307:

N/A

City nearest the outfall(s): Boyd

County in which the outfalls(s) is/are located: Wise

C. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

☐ Yes ☒ No

If **yes**, indicate by a check mark if:

☐ Authorization granted ☐ Authorization pending

For **new and amendment** applications, provide copies of letters that show proof of contact and the approval letter upon receipt.

Attachment: Click to enter text.

D. For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: N/A

Section 11. TLAP Disposal Information (Instructions Page 32)

A. For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

☐ Yes ☐ No

If **no, or a new or amendment permit application**, provide an accurate description of the disposal site location:

N/A

B. City nearest the disposal site: N/A

C. County in which the disposal site is located: N/A

D. For **TLAPs**, describe the routing of effluent from the treatment facility to the disposal site:

N/A

E. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: N/A

Section 12. Miscellaneous Information (Instructions Page 32)

A. Is the facility located on or does the treated effluent cross American Indian Land?

☐ Yes X No

B. If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate?

☐ Yes ☐ No X Not Applicable

If No, or if a new onsite sludge disposal authorization is being requested in this permit application, provide an accurate location description of the sewage sludge disposal site.

N/A

C. Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?

☐ Yes X No

If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application: Click to enter text.

D. Do you owe any fees to the TCEQ?

☐ Yes X No

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

Account number: N/A

Amount past due: N/A

E. Do you owe any penalties to the TCEQ?

☐ Yes X No

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

Enforcement order number: N/A

Amount past due: N/A

Section 13. Attachments (Instructions Page 33)

Indicate which attachments are included with the Administrative Report. Check all that apply:

☐ Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.

X Original full-size USGS Topographic Map with the following information:

- Applicant's property boundary
- Treatment facility boundary
- Labeled point of discharge for each discharge point (TPDES only)
- Highlighted discharge route for each discharge point (TPDES only)
- Onsite sewage sludge disposal site (if applicable)
- Effluent disposal site boundaries (TLAP only)
- New and future construction (if applicable)
- 1 mile radius information
- 3 miles downstream information (TPDES only)
- All ponds.

☐ Attachment 1 for Individuals as co-applicants

X Other Attachments. Please specify: See Table of Contents

Section 14. Signature Page (Instructions Page 34)

If co-applicants are necessary, each entity must submit an original, separate signature page.

Permit Number: WQ0010132001

Applicant: City of Boyd

Certification:

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

I further certify that I am authorized under 30 Texas Administrative Code § 305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed): Dwayne Taylor

Signatory title: City Administrator

Signature: William D. Taylor Date: 10-2-24

(Use blue ink)

Subscribed and Sworn to before me by the said William D. Taylor

on this 2nd day of October, 2024.

My commission expires on the 27th day of July, 2026.

Brittney Lefebvre

Notary Public

BRITTNEY LEFEBVRE
Notary Public, State of Texas
My Commission Expires
July 27, 2026
NOTARY ID 13387915-0

[SEAL]

Wise

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

A. Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:

- X The applicant's property boundaries
- X The facility site boundaries within the applicant's property boundaries
- X The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
- X The property boundaries of all landowners surrounding the applicant's property (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
- X The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
- X The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
- ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
- ☐ The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
- ☐ The property boundaries of all landowners surrounding the effluent disposal site
- ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
- ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located

B. X Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.

C. Indicate by a check mark in which format the landowners list is submitted:

☐ USB Drive X Four sets of labels

D. Provide the source of the landowners' names and mailing addresses: Wise County Appraisal District

E. As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?

☐ Yes X No

If **yes**, provide the location and foreseeable impacts and effects this application has on the land(s):

Click to enter text.

Section 2. Original Photographs (Instructions Page 38)

Provide original ground level photographs. Indicate with checkmarks that the following information is provided.

- X At least one original photograph of the new or expanded treatment unit location
- X At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☐ At least one photograph of the existing/proposed effluent disposal site
- X A plot plan or map showing the location and direction of each photograph

Section 3. Buffer Zone Map (Instructions Page 38)

A. Buffer zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following information. The applicant's property line and the buffer zone line may be distinguished by using dashes or symbols and appropriate labels.

- The applicant's property boundary;
- The required buffer zone; and
- Each treatment unit; and
- The distance from each treatment unit to the property boundaries.

B. Buffer zone compliance method. Indicate how the buffer zone requirements will be met. Check all that apply.

- ☐ Ownership
- X Restrictive easement
- ☐ Nuisance odor control
- ☐ Variance

C. Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13(a) through (d)?

X Yes ☐ No

DOMESTIC WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

Attachment: Exhibit 3. Supplemental Permit Information Form

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if the mailing the payment.

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- **Do Not mail this form with the application form.**
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, Texas 78753

Fee Code: WQP **Waste Permit No:** Click to enter text.

1. Check or Money Order Number: Click to enter text.
2. Check or Money Order Amount: Click to enter text.
3. Date of Check or Money Order: Click to enter text.
4. Name on Check or Money Order: City of Boyd
5. APPLICATION INFORMATION

   Name of Project or Site: City of Boyd WWTP

   Physical Address of Project or Site: 2,200 feet northeast of the intersection of FM 730 and SH 114 in the City of Boyd, Wise County, Texas.

   If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

Staple Check or Money Order in This Space

ATTACHMENT 1

INDIVIDUAL INFORMATION

Section 1. Individual Information (Instructions Page 41)

Complete this attachment if the facility applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

Prefix (Mr., Ms., Miss): Click to enter text.

Full legal name (Last Name, First Name, Middle Initial): Click to enter text.

Driver's License or State Identification Number: Click to enter text.

Date of Birth: Click to enter text.

Mailing Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Phone Number: Click to enter text. Fax Number: Click to enter text.

E-mail Address: Click to enter text.

CN: Click to enter text.

For Commission Use Only:
Customer Number:
Regulated Entity Number:
Permit Number:

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

Below is a list of common deficiencies found during the administrative review of domestic wastewater permit applications. To ensure the timely processing of this application, please review the items below and indicate by checking Yes that each item is complete and in accordance applicable rules at 30 TAC Chapters 21, 281, and 305. If an item is not required this application, indicate by checking N/A where appropriate. Please do not submit the application until the items below have been addressed.

Core Data Form (TCEQ Form No. 10400) ☒ Yes
(Required for all application types. Must be completed in its entirety and signed. Note: Form may be signed by applicant representative.)

Correct and Current Industrial Wastewater Permit Application Forms ☒ Yes
(TCEQ Form Nos. 10053 and 10054. Version dated 6/25/2018 or later.)

Water Quality Permit Payment Submittal Form (Page 19) ☒ Yes
(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)

7.5 Minute USGS Quadrangle Topographic Map Attached ☒ Yes
(Full-size map if seeking "New" permit. 8 ½ x 11 acceptable for Renewals and Amendments)

Current/Non-Expired, Executed Lease Agreement or Easement ☐ N/A ☐ Yes

Landowners Map ☐ N/A ☒ Yes
(See instructions for landowner requirements)

Things to Know:

- All the items shown on the map must be labeled.
- The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant.
- The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility.
- If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway.

Landowners Cross Reference List ☐ N/A ☒ Yes
(See instructions for landowner requirements)

Landowners Labels or USB Drive attached ☐ N/A ☒ Yes
(See instructions for landowner requirements)

Original signature per 30 TAC § 305.44 – Blue Ink Preferred ☒ Yes
(If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached)

Plain Language Summary ☒ Yes

Exhibit 3.
Supplemental Permit Information Form (SPIF)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:

Application type: ____Renewal ____Major Amendment ____Minor Amendment ____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

_____ Texas Historical Commission _____ U.S. Fish and Wildlife

_____ Texas Parks and Wildlife Department _____ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 53)

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

Do not refer to your response to any item in the permit application form. Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: City of Boyd

   Permit No. WQ00 10131001 EPA ID No. TX 0022632

   Address of the project (or a location description that includes street/highway, city/vicinity, and county):

   Boyd Wastewater Treatment Facility is located approximately 2,200 feet northeast of the intersection of FM 730 and SH 114 in the City of Boyd, Wise County, Texas.

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Dwayne Taylor

Credential (P.E, P.G., Ph.D., etc.): N/A

Title: City Administrator

Mailing Address: PO Box 216

City, State, Zip Code: Boyd, TX 76023

Phone No.: 940-433-8400 Ext.: N/A Fax No.: 940-433-8241

E-mail Address: wtaylor@cityofboyd.com

2. List the county in which the facility is located: Wise
3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

N/A

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

The effluent is discharged to West Fork Trinity River below Bridgeport Reservoir in Segment 0810 of Trinity River Basin.

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- ☐ Proposed access roads, utility lines, construction easements
- ☐ Visual effects that could damage or detract from a historic property's integrity
- ☐ Vibration effects during construction or as a result of project design
- ☐ Additional phases of development that are planned for the future
- ☐ Sealing caves, fractures, sinkholes, other karst features

☐ Disturbance of vegetation or wetlands

1. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

N/A

2. Describe existing disturbances, vegetation, and land use:

No existing disturbances. Existing vegetation includes native grasses and trees (bluestem, Texas wintergrass, buffalo grass, cedar, elms, post oaks, and mesquites. Primary existing land use is pastureland and rangeland.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

3. List construction dates of all buildings and structures on the property:

North plant, lift station, old sludge beds, blower building, EQ basin were built in 1982.
South plant, new sludge beds, control building, influent screen structure were built in 2002.

4. Provide a brief history of the property, and name of the architect/builder, if known.

Sold by Sybil nTodd to City of Boyd in 1981. Used for grazing prior to that.

Exhibit 4.
Core Data Form

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☒ Other **Amendment**

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 600734487		**RN 101721652**

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy) 4/30/2024

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* | *If new Customer, enter previous Customer below:*

City of Boyd

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
		75-1246763	

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☒ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ **Yes** ☐ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:	P.O. Box 216						
	City	Boyd	**State**	TX	**ZIP**	76023	**ZIP + 4**

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	wtaylor@cityofboyd.com

18. Telephone Number	**19. Extension or Code**	**20. Fax Number** *(if applicable)*

(940) 433-8400		(940) 433-8241

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

City of Boyd Wastewater Treatment Facility

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	No Physical Address							
	City		**State**		**ZIP**		**ZIP + 4**	
24. County	Wise							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	2,200 ft northeast of the intersection of FM 730 and SH 114. From FM 730 go east 0.4 miles on HWY 114 past Boyd Police Department first private drive on left.				
26. Nearest City			**State**	**Nearest ZIP Code**	
Boyd			TX	76023	

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	33.08111		**28. Longitude (W) In Decimal:**	97.55139	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
33	4	52	97	33	5

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
4952		221320	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Public Domestic Wastewater Treatment

34. Mailing Address:	**P.O. Box 216**							
	City	**Boyd**	**State**	**TX**	**ZIP**	**76023**	**ZIP + 4**	
35. E-Mail Address:	**wtaylor@cityofboyd.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(940) 433-8400		**(940) 433-8241**

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:
	WQ0010132001			

SECTION IV: Preparer Information

40. Name:	Roman Boitsov, P.E.	**41. Title:**	City Engineer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(817 **)** 431-1800		**(** 817 **)** 431-1850	rboitsov@belcheff.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	City of Boyd	**Job Title:**	Director of Public Services		
Name *(In Print):*	Dwayne Taylor			**Phone:**	**(** 940 **)** 433- **8400**
Signature:				**Date:**	

Exhibit 5.
Public Involvement Plan Form

Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

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

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

Section 1. Preliminary Screening

☐ New Permit or Registration Application

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

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

Section 2. Secondary Screening

☒ Requires public notice,

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

☒ Located within any of the following geographical locations:

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

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

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

Section 3. Application Information

Type of Application (check all that apply):

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

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

Water Quality

☒ Texas Pollutant Discharge Elimination System (TPDES)

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

☐ Class B Biosolids Land Application Permit

☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water

☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water

☐ Add a New or Existing Reservoir

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

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Existing plant will be expanded in two phases, from 0.24 MGD to an ultimate of 0.98 MGD.

Section 5. Community and Demographic Information

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

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

(City)

Ponder

(County)

Wise

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.

☒ City ☐ County ☐ Census Tract

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

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

$68,631 MHI

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

White non-Hispanic 68.3%, Black or African American 1.45%, White Hispanic 16.4%, Multi-racial 2.43%, Asian/Other 1.64%

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

0%

(e) Languages commonly spoken in area by percentage

English 100%

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

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

☒ Yes ☐ No

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

☐ Yes ☒ No

If Yes, please describe.

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

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

☐ Yes ☐ No

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

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

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

☐ TCEQ Regional Office ☐ TCEQ Central Office

☐ Public Place (specify)

Section 7. Voluntary Submittal

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

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

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

CITY OF BOYD
WASTEWATER TREATMENT PLANT
PERMIT AMENDMENT WITH RENEWAL APPLICATION

TPDES PERMIT NO. WQ0010131-001

Exhibit 6.
Technical Report 1.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

For any questions about this form, please contact the Domestic Wastewater Permitting Team at 512-239-4671.

The following information is required for all renewal, new, and amendment applications.

Section 1. Permitted or Proposed Flows (Instructions Page 43)

A. Existing/Interim I Phase

Design Flow (MGD): 0.24

2-Hr Peak Flow (MGD): 0.72

Estimated construction start date: Fall 2008

Estimated waste disposal start date: Fall 2011

B. Interim II Phase

Design Flow (MGD): 0.48

2-Hr Peak Flow (MGD): 1.584

Estimated construction start date: 1/1/2025

Estimated waste disposal start date: 10/1/2025

C. Final Phase

Design Flow (MGD): 0.98

2-Hr Peak Flow (MGD): 3.23

Estimated construction start date: 6/1/2026

Estimated waste disposal start date: 6/1/2027

D. Current Operating Phase

Provide the startup date of the facility: Fall 2011

Section 2. Treatment Process (Instructions Page 43)

A. Current Operating Phase

Provide a detailed description of the treatment process. **Include the type of treatment plant, mode of operation, and all treatment units.** Start with the plant's head works and

finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed, a description of *each phase* must be provided**.

Existing/Interim I Phase: Activated sludge plant operated in extended aeration mode. Treatment units include (1) influent mechanical bar screen, (1) equalization basin, (2)-parallel aeration basins, (2)-parallel final clarifiers, and (2)-parallel chlorine contact basins. Solids from final clarifiers are pumped to (2) parallel aerobic sludge digesters. Digested sludge then pumped to sludge drying beds and/or dewatering sludge boxes. Dried sludge hauled by truck to designated landfill.

Interim II Phase: Activated sludge plant operated in conventional aeration mode. Treatment units include (1) influent mechanical bar screen, (1) equalization basin, (2)-parallel aeration basins, (2)-parallel final clarifiers, and (2)-parallel chlorine contact basins. Solids from final clarifiers are pumped to (4) parallel aerobic sludge digesters. Digested sludge then pumped to sludge drying beds or a dewatering building. Dried sludge hauled by truck to designated landfill.

Final Phase: Activated sludge plant operated in conventional aeration mode. Treatment units include (2) influent mechanical bar screens, (2) equalization basins, (4)-parallel aeration basins, (4)-parallel final clarifiers, and (4)-parallel chlorine contact basins. Solids from final clarifiers are pumped to (6) parallel aerobic sludge digesters. Digested sludge then pumped to sludge drying beds or dewatering sludge press building. Dried sludge hauled by truck to designated landfill.

B. Treatment Units

In Table 1.0(1), provide the treatment unit type, the number of units, and dimensions (length, width, depth) **of each treatment unit, accounting for *all* phases of operation.**

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions
Interim I/Existing Phase		**0.24 MGD**
Outer Ring Diameter-Plant 1		64’-6”
Inner Ring Diameter-Plant 1		32’-0”
Outer Ring Diameter-Plant 2		62’-0”
Inner Ring Diameter-Plant 2		32’-0”
Wall Height-Plants 1 & 2		11’-0”
Mechanical Screen	1	20’ X 16” X 27”
Aerobic Digester-Plant 1	1	16.25’ X 80° X 9’-6”
Aeration Basin-Plant 1	1	16.25’ X 285° X 9’-6”
Clarifier-Plant 1 (Ch 317)	1	32’ ID X 8’ SWD
Chlorine Contact-Plant 1	1	16.25’ X 15° X 8’ SWD
Aerobic Digester-Plant 2	1	15’ X 80° X 9’-6”
Aeration Basin-Plant 2	1	15’ X 267° X 9’-6”
Clarifier-Plant 2 (Ch 217)	1	32’ ID X 9’-6” SWD

Treatment Unit Type	Number of Units	Dimensions
Chlorine Contact-Plant 2	1	16.25’ X 13˚ X 8’ SWD
Interim II Phase		**0.48 MGD**
Outer Ring Diameter-Plant 1		64’-6”
Inner Ring Diameter-Plant 1		32’-0”
Outer Ring Diameter-Plant 2		62’-0”
Inner Ring Diameter-Plant 2		32’-0”
Wall Height-Plants 1 & 2		11’-0”
Mechanical Screen	1	20’ X 16” X 27”
Aerobic Digester-Plant 1	1	16.25’ X 95˚ X 9’-6”
Aeration Basin-Plant 1	1	16.25’ X 285˚ X 9’-6”
Clarifier-Plant 1 (Ch 317)	1	32’ ID X 8’ SWD
Aerobic Digester-Plant 2	1	15’ X 93˚ X 9’-6”
Aeration Basin-Plant 2	1	15’ X 267˚ X 9’-6”
Clarifier-Plant 2 (Ch 217)	1	32’ ID X 9’-6” SWD
Chlorine Contact-Plants 1 & 2	2	10’ X 30’ X 7’ SWD
Aerobic Digester-Plants 1 & 2	2	28’ Diameter X 10’ SWD
Final Phase - Same as Interim II But With The Following Additional Units		**0.98 MGD**
Outer Ring Diameter		68’-0”
Inner Ring Diameter		33’-0”
Wall Height		16’-6”
Mechanical Screen	1	20’ X 16” X 27”
Aerobic Digester	4	17.50’ X 56˚ X 14.83
Aeration Basin	2	17.50’ X 248˚ X 14’-10”
Clarifier 3 & 4	2	33’ ID X 12’ SWD
Chlorine Contact 3 & 4	2	10’ X 30’ X 7’ SWD

C. Process Flow Diagram

Provide flow diagrams for the existing facilities and **each** proposed phase of construction.

Attachment: Attachment 4. Flow Diagrams

Section 3. Site Information and Drawing (Instructions Page 44)

Provide the TPDES discharge outfall latitude and longitude. Enter N/A if not applicable.

- Latitude: 33° 4' 58" N
- Longitude: 97° 33' 5" W

Provide the TLAP disposal site latitude and longitude. Enter N/A if not applicable.

- Latitude: N/A
- Longitude: N/A

Provide a site drawing for the facility that shows the following:

- The boundaries of the treatment facility;
- The boundaries of the area served by the treatment facility;
- If land disposal of effluent, the boundaries of the disposal site and all storage/holding ponds; and
- If sludge disposal is authorized in the permit, the boundaries of the land application or disposal site.

Attachment: Attachment 5. Site Drawing

Provide the name **and** a description of the area served by the treatment facility.

Boyd city limits and ETJ.

Collection System Information **for wastewater TPDES permits only**: Provide information for each **uniquely owned** collection system, existing and new, served by this facility, including satellite collection systems. **Please see the instructions for a detailed explanation and examples.**

Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
Boyd Collection System	City of Boyd	**Publicly Owned**	5,000
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 45)

Is the application for a renewal of a permit that contains an unbuilt phase or phases?

☐ Yes ☒ No

If yes, does the existing permit contain a phase that has not been constructed **within five years** of being authorized by the TCEQ?

☐ Yes ☐ No

If yes, provide a detailed discussion regarding the continued need for the unbuilt phase. **Failure to provide sufficient justification may result in the Executive Director recommending denial of the unbuilt phase or phases**.

N/A

Section 5. Closure Plans (Instructions Page 45)

Have any treatment units been taken out of service permanently, or will any units be taken out of service in the next five years?

☐ Yes ☒ No

If yes, was a closure plan submitted to the TCEQ?

☐ Yes ☐ No

If yes, provide a brief description of the closure and the date of plan approval.

N/A

Section 6. Permit Specific Requirements (Instructions Page 45)

For applicants with an existing permit, check the Other Requirements or Special Provisions of the permit.

A. Summary transmittal

Have plans and specifications been approved for the existing facilities and each proposed phase?

☐ Yes ☒ No

If yes, provide the date(s) of approval for each phase: Click to enter text.

Provide information, including dates, on any actions taken to meet a *requirement or provision* pertaining to the submission of a summary transmittal letter. **Provide a copy of an approval letter from the TCEQ, if applicable**.

Click to enter text.

B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

Provide information below, including dates, on any actions taken to meet the conditions of the buffer zone. If available, provide any new documentation relevant to maintaining the buffer zones.

Requirements met for Phase I. Phase II and III will require easements from adjacent property to east.

C. Other actions required by the current permit

Does the *Other Requirements* or *Special Provisions* section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc.

☐ Yes ☒ No

If yes, provide information below on the status of any actions taken to meet the conditions of an *Other Requirement* or *Special Provision*.

Click to enter text.

D. Grit and grease treatment

1. Acceptance of grit and grease waste

Does the facility have a grit and/or grease processing facility onsite that treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?

☐ Yes ☒ No

If No, stop here and continue with Subsection E. Stormwater Management.

2. Grit and grease processing

Describe below how the grit and grease waste is treated at the facility. In your description, include how and where the grit and grease is introduced to the treatment

works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility.

N/A

3. *Grit disposal*

Does the facility have a Municipal Solid Waste (MSW) registration or permit for grit disposal?

☐ Yes ☐ No

If No, contact the TCEQ Municipal Solid Waste team at 512-239-2335. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

N/A

4. *Grease and decanted liquid disposal*

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-2335.

Describe how the decant and grease are treated and disposed of after grit separation.

N/A

E. Stormwater management

1. *Applicability*

Does the facility have a design flow of 1.0 MGD or greater in any phase?

☐ Yes ☒ No

Does the facility have an approved pretreatment program, under 40 CFR Part 403?

☐ Yes ☒ No

If no to both of the above, then skip to Subsection F, Other Wastes Received.

2. ***MSGP coverage***

Is the stormwater runoff from the WWTP and dedicated lands for sewage disposal currently permitted under the TPDES Multi-Sector General Permit (MSGP), TXR050000?

☐ Yes ☐ No

If yes, please provide MSGP Authorization Number and skip to Subsection F, Other Wastes Received:

TXR05 Click to enter text. or TXRNE Click to enter text.

If no, do you intend to seek coverage under TXR050000?

☐ Yes ☐ No

3. ***Conditional exclusion***

Alternatively, do you intend to apply for a conditional exclusion from permitting based TXR050000 (Multi Sector General Permit) Part II B.2 or TXR050000 (Multi Sector General Permit) Part V, Sector T 3(b)?

☐ Yes ☐ No

If yes, please explain below then proceed to Subsection F, Other Wastes Received:

Click to enter text.

4. ***Existing coverage in individual permit***

Is your stormwater discharge currently permitted through this individual TPDES or TLAP permit?

☐ Yes ☐ No

If yes, provide a description of stormwater runoff management practices at the site that are authorized in the wastewater permit then skip to Subsection F, Other Wastes Received.

Click to enter text.

5. ***Zero stormwater discharge***

Do you intend to have no discharge of stormwater via use of evaporation or other means?

☐ Yes ☐ No

If yes, explain below then skip to Subsection F. Other Wastes Received.

Click to enter text.

Note: If there is a potential to discharge any stormwater to surface water in the state as the result of any storm event, then permit coverage is required under the MSGP or an individual discharge permit. This requirement applies to all areas of facilities with treatment plants or systems that treat, store, recycle, or reclaim domestic sewage, wastewater or sewage sludge (including dedicated lands for sewage sludge disposal located within the onsite property boundaries) that meet the applicability criteria of above. You have the option of obtaining coverage under the MSGP for direct discharges, (recommended), or obtaining coverage under this individual permit.

6. Request for coverage in individual permit

Are you requesting coverage of stormwater discharges associated with your treatment plant under this individual permit?

☐ Yes ☐ No

If yes, provide a description of stormwater runoff management practices at the site for which you are requesting authorization in this individual wastewater permit and describe whether you intend to comingle this discharge with your treated effluent or discharge it via a separate dedicated stormwater outfall. Please also indicate if you intend to divert stormwater to the treatment plant headworks and indirectly discharge it to water in the state.

Click to enter text.

Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
Click to enter text.

G. Other wastes received including sludge from other WWTPs and septic waste

1. Acceptance of sludge from other WWTPs

Does or will the facility accept sludge from other treatment plants at the facility site?

☐ Yes ☒ No

If yes, attach sewage sludge solids management plan. See Example 5 of instructions.

In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the sludge, and the design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

2. ***Acceptance of septic waste***

Is the facility accepting or will it accept septic waste?

☐ Yes ☒ No

If yes, does the facility have a Type V processing unit?

☐ Yes ☐ No

If yes, does the unit have a Municipal Solid Waste permit?

☐ Yes ☐ No

If yes to any of the above, provide the date the plant started or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the septic waste, and the design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

3. ***Acceptance of other wastes (not including septic, grease, grit, or RCRA, CERCLA or as discharged by IUs listed in Worksheet 6)***

Is or will the facility accept wastes that are not domestic in nature excluding the categories listed above?

☐ Yes ☒ No

If yes, provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or

other physical characteristic of the waste. Also note if this information has or has not changed since the last permit action.

N/A

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 50)

Is the facility in operation?

☒ Yes ☐ No

If no, this section is not applicable. Proceed to Section 8.

If yes, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). W***ater treatment facilities*** discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

Note: The sample date must be within 1 year of application submission.

Table1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
$CBOD_5$, mg/l					
Total Suspended Solids, mg/l					
Ammonia Nitrogen, mg/l					
Nitrate Nitrogen, mg/l					
Total Kjeldahl Nitrogen, mg/l					
Sulfate, mg/l					
Chloride, mg/l					
Total Phosphorus, mg/l					
pH, standard units					
Dissolved Oxygen*, mg/l					
Chlorine Residual, mg/l					
E.coli (CFU/100ml) freshwater					
Entercocci (CFU/100ml) saltwater					
Total Dissolved Solids, mg/l					
Electrical Conductivity, µmohs/cm, †					

Oil & Grease, mg/l					
Alkalinity ($CaCO_3$)*, mg/l					

*TPDES permits only
†TLAP permits only

Table1.0(3) – Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l					
Total Dissolved Solids, mg/l					
pH, standard units					
Fluoride, mg/l					
Aluminum, mg/l					
Alkalinity ($CaCO_3$), mg/l					

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: William Dwayne Taylor

Facility Operator's License Classification and Level: Operator Level C

Facility Operator's License Number: WW0064766

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 51)

A. WWTP's Biosolids Management Facility Type

Check all that apply. See instructions for guidance

- ☐ Design flow>= 1 MGD
- ☐ Serves >= 10,000 people
- ☐ Class I Sludge Management Facility (per 40 CFR § 503.9)
- ☐ Biosolids generator
- ☐ Biosolids end user – land application (onsite)
- ☐ Biosolids end user – surface disposal (onsite)
- ☐ Biosolids end user – incinerator (onsite)

B. WWTP's Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☒ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting

- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)
- ☐ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- ☐ Sludge Lagoon
- ☐ Temporary Storage (< 2 years)
- ☐ Long Term Storage (>= 2 years)
- ☐ Methane or Biogas Recovery
- ☐ Other Treatment Process: Click to enter text.

C. Biosolids Management

Provide information on the *intended* biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize all biosolids management practices listed in the instructions. Rather indicate the management practice the facility plans to use.

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Disposal in Landfill	On-Site Owner or Operator	Bulk		Class B: PSRP Aerobic Digestion	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): Click to enter text.

D. Disposal site

Disposal site name: Turkey Creek Landfill

TCEQ permit or registration number: 1417C (RN100825462)

County where disposal site is located: Johnson

E. Transportation method

Method of transportation (truck, train, pipe, other): Truck

Name of the hauler: Cyclone Services

Hauler registration number: 25816

Sludge is transported as a:

Liquid ☐ semi-liquid ☐ semi-solid ☐ solid ☒

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 53)

A. Beneficial use authorization

Does the existing permit include authorization for land application of sewage sludge for beneficial use?

☐ Yes ☒ No

If yes, are you requesting to continue this authorization to land apply sewage sludge for beneficial use?

☐ Yes ☐ No

If yes, is the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)** attached to this permit application (see the instructions for details)?

☐ Yes ☐ No

B. Sludge processing authorization

Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?

Sludge Composting	☐ Yes	☒ No
Marketing and Distribution of sludge	☐ Yes	☒ No
Sludge Surface Disposal or Sludge Monofill	☐ Yes	☒ No
Temporary storage in sludge lagoons	☐ Yes	☒ No

If yes to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)** attached to this permit application?

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

If yes, complete the remainder of this section. If no, proceed to Section 12.

A. Location information

The following maps are required to be submitted as part of the application. For each map, provide the Attachment Number.

- Original General Highway (County) Map:

Attachment: Click to enter text.

- USDA Natural Resources Conservation Service Soil Map:

  Attachment: Click to enter text.

- Federal Emergency Management Map:

  Attachment: Click to enter text.

- Site map:

  Attachment: Click to enter text.

Discuss in a description if any of the following exist within the lagoon area. Check all that apply.

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands
- ☐ Located less than 60 meters from a fault
- ☐ None of the above

Attachment: Click to enter text.

If a portion of the lagoon(s) is located within the 100-year frequency flood plain, provide the protective measures to be utilized including type and size of protective structures:

Click to enter text.

B. Temporary storage information

Provide the results for the pollutant screening of sludge lagoons. These results are in addition to pollutant results in *Section 7 of Technical Report 1.0.*

Nitrate Nitrogen, mg/kg: Click to enter text.

Total Kjeldahl Nitrogen, mg/kg: Click to enter text.

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: Click to enter text.

Phosphorus, mg/kg: Click to enter text.

Potassium, mg/kg: Click to enter text.

pH, standard units: Click to enter text.

Ammonia Nitrogen mg/kg: Click to enter text.

Arsenic: Click to enter text.

Cadmium: Click to enter text.

Chromium: Click to enter text.

Copper: Click to enter text.

Lead: Click to enter text.

Mercury: Click to enter text.

Molybdenum: Click to enter text.

Nickel: Click to enter text.

Selenium: Click to enter text.

Zinc: Click to enter text.

Total PCBs: Click to enter text.

Provide the following information:

Volume and frequency of sludge to the lagoon(s): Click to enter text.

Total dry tons stored in the lagoons(s) per 365-day period: Click to enter text.

Total dry tons stored in the lagoons(s) over the life of the unit: Click to enter text.

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of $1x10^{-7}$ cm/sec?

☐ Yes ☐ No

If yes, describe the liner below. Please note that a liner is required.

Click to enter text.

D. Site development plan

Provide a detailed description of the methods used to deposit sludge in the lagoon(s):

Click to enter text.

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)

  Attachment: Click to enter text.
- Copy of the closure plan

  Attachment: Click to enter text.
- Copy of deed recordation for the site

  Attachment: Click to enter text.
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

Attachment: Click to enter text.

- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  Attachment: Click to enter text.

- Procedures to prevent the occurrence of nuisance conditions

  Attachment: Click to enter text.

E. Groundwater monitoring

Is groundwater monitoring currently conducted at this site, or are any wells available for groundwater monitoring, or are groundwater monitoring data otherwise available for the sludge lagoon(s)?

☐ Yes ☐ No

If groundwater monitoring data are available, provide a copy. Provide a profile of soil types encountered down to the groundwater table and the depth to the shallowest groundwater as a separate attachment.

Attachment: Click to enter text.

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 55)

A. Additional authorizations

Does the permittee have additional authorizations for this facility, such as reuse authorization, sludge permit, etc?

☐ Yes ☒ No

If yes, provide the TCEQ authorization number and description of the authorization:

N/A

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

Is the permittee required to meet an implementation schedule for compliance or enforcement?

☐ Yes ☒ No

If yes to either question, provide a brief summary of the enforcement, the implementation schedule, and the current status:

N/A

Section 13. RCRA/CERCLA Wastes (Instructions Page 55)

A. RCRA hazardous wastes

Has the facility received in the past three years, does it currently receive, or will it receive RCRA hazardous waste?

☐ Yes ☒ No

B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

☐ Yes ☒ No

C. Details about wastes received

If yes to either Subsection A or B above, provide detailed information concerning these wastes with the application.

Attachment: Click to enter text.

Section 14. Laboratory Accreditation (Instructions Page 56)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
  - periodically inspected by the TCEQ; or
  - located in another state and is accredited or inspected by that state; or
  - performing work for another company with a unit located in the same site; or
  - performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review 30 TAC Chapter 25 for specific requirements.

The following certification statement shall be signed and submitted with every application. See the Signature Page section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.*

Printed Name: Dwayne Taylor

Title: City Administrator

Signature: William O. Taylor

Date: 10-2-24

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

The following information is required for new and amendment major applications.

Section 1. Justification for Permit (Instructions Page 57)

A. Justification of permit need

Provide a detailed discussion regarding the need for any phase(s) not currently permitted. Failure to provide sufficient justification may result in the Executive Director recommending denial of the proposed phase(s) or permit.

The City of Boyd is experiencing abnormal growth in both residential and commercial developments. Several new subdivisions in and adjacent to Boyd are requesting water and sewer service from the City. Subsequent phases for the same developments are already under the planning phases. In all, approximately 1,000 new residential connections are being planned in the Boyd area in the next 3-5 years.

B. Regionalization of facilities

For additional guidance, please review TCEQ's Regionalization Policy for Wastewater Treatment[1].

Provide the following information concerning the potential for regionalization of domestic wastewater treatment facilities:

1. Municipally incorporated areas

If the applicant is a city, then Item 1 is not applicable. Proceed to Item 2 Utility CCN areas.

Is any portion of the proposed service area located in an incorporated city?

☐ Yes ☐ No ☐ Not Applicable

If yes, within the city limits of: Click to enter text.

If yes, attach correspondence from the city.

Attachment: Click to enter text.

If consent to provide service is available from the city, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the city versus the cost of the proposed facility or expansion attached.

Attachment: Click to enter text.

2. Utility CCN areas

Is any portion of the proposed service area located inside another utility's CCN area?

☐ Yes ☒ No

[1] https://www.tceq.texas.gov/permitting/wastewater/tceq-regionalization-for-wastewater

If yes, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the CCN facilities versus the cost of the proposed facility or expansion.

Attachment: Click to enter text.

3. Nearby WWTPs or collection systems

Are there any domestic permitted wastewater treatment facilities or collection systems located within a three-mile radius of the proposed facility?

☐ Yes ☒ No

If yes, attach a list of these facilities and collection systems that includes each permittee's name and permit number, and an area map showing the location of these facilities and collection systems.

Attachment: Click to enter text.

If yes, attach proof of mailing a request for service to each facility and collection system, the letters requesting service, and correspondence from each facility and collection system.

Attachment: Click to enter text.

If the facility or collection system agrees to provide service, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the facility or collection system versus the cost of the proposed facility or expansion.

Attachment: Click to enter text.

Section 2. Proposed Organic Loading (Instructions Page 59)

Is this facility in operation?

☒ Yes ☐ No

If no, proceed to Item B, Proposed Organic Loading.

If yes, provide organic loading information in Item A, Current Organic Loading

A. Current organic loading

Facility Design Flow (flow being requested in application): 0.24 MGD

Average Influent Organic Strength or BOD_5 Concentration in mg/l: 250

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): 500

Provide the source of the average organic strength or BOD_5 concentration.

Single grab sample of influent.

B. Proposed organic loading

This table must be completed if this application is for a facility that is not in operation or if this application is to request an increased flow that will impact organic loading.

Table 1.1(1) – Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality		
Subdivision		
Trailer park – transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park, overnight use		
Recreational park, day use		
Office building or factory		
Motel		
Restaurant		
Hospital		
Nursing home		
Other		
TOTAL FLOW from all sources		
AVERAGE BOD_5 from all sources		

Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 59)

A. Existing/Interim I Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 20

Total Suspended Solids, mg/l: 20

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 2.0

Other: N/A

B. Interim II Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 20

Total Suspended Solids, mg/l: 20

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 2.0

Other: N/A

C. Final Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 20

Total Suspended Solids, mg/l: 20

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 2.0

Other: N/A

D. Disinfection Method

Identify the proposed method of disinfection.

☒ Chlorine: 1-4 mg/l after 20 minutes detention time at peak flow

Dechlorination process: N/A

☐ Ultraviolet Light: Click to enter text. seconds contact time at peak flow

☐ Other: Click to enter text.

Section 4. Design Calculations (Instructions Page 59)

Attach design calculations and plant features for each proposed phase. Example 4 of the instructions includes sample design calculations and plant features.

Attachment: Attachment 7. Design Calculations

Section 5. Facility Site (Instructions Page 60)

A. 100-year floodplain

Will the proposed facilities be located above the 100-year frequency flood level?

☒ Yes ☐ No

If no, describe measures used to protect the facility during a flood event. Include a site map showing the location of the treatment plant within the 100-year frequency flood level. If applicable, provide the size and types of protective structures.

N/A

Provide the source(s) used to determine 100-year frequency flood plain.

FEMA

For a new or expansion of a facility, will a wetland or part of a wetland be filled?

☐ Yes ☒ No

If yes, has the applicant applied for a US Corps of Engineers 404 Dredge and Fill Permit?

☐ Yes ☐ No

If yes, provide the permit number: Click to enter text.

If no, provide the approximate date you anticipate submitting your application to the Corps: Click to enter text.

B. Wind rose

Attach a wind rose: Attachment 9. Wind Rose

Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

Are you requesting to include authorization to land apply sewage sludge for beneficial use on property located adjacent to the wastewater treatment facility under the wastewater permit?

☐ Yes ☒ No

If yes, attach the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)**: Click to enter text.

B. Sludge processing authorization

Identify the sludge processing, storage or disposal options that will be conducted at the wastewater treatment facility:

☐ Sludge Composting

☐ Marketing and Distribution of sludge

☐ Sludge Surface Disposal or Sludge Monofill

If any of the above, sludge options are selected, attach the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)**: Click to enter text.

Section 7. Sewage Sludge Solids Management Plan (Instructions Page 61)

Attach a solids management plan to the application.

Attachment: Attachment 8. Solids Management Plans

The sewage sludge solids management plan must contain the following information:

- Treatment units and processes dimensions and capacities

- Solids generated at 100, 75, 50, and 25 percent of design flow
- Mixed liquor suspended solids operating range at design and projected actual flow
- Quantity of solids to be removed and a schedule for solids removal
- Identification and ownership of the ultimate sludge disposal site
- For facultative lagoons, design life calculations, monitoring well locations and depths, and the ultimate disposal method for the sludge from the facultative lagoon

An example of a sewage sludge solids management plan has been included as Example 5 of the instructions.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 64)

Is there a surface water intake for domestic drinking water supply located within 5 miles downstream from the point or proposed point of discharge?

☐ Yes ☒ No

If **no**, proceed it Section 2. **If yes**, provide the following:

Owner of the drinking water supply: Click to enter text.

Distance and direction to the intake: Click to enter text.

Attach a USGS map that identifies the location of the intake.

Attachment: Click to enter text.

Section 2. Discharge into Tidally Affected Waters (Instructions Page 64)

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

If **no**, proceed to Section 3. **If yes**, complete the remainder of this section. If no, proceed to Section 3.

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: Click to enter text.

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

If yes, provide the distance and direction from outfall(s).

N/A

C. Sea grasses

Are there any sea grasses within the vicinity of the point of discharge?

☐ Yes ☐ No

If yes, provide the distance and direction from the outfall(s).

N/A

Section 3. Classified Segments (Instructions Page 64)

Is the discharge directly into (or within 300 feet of) a classified segment?

☒ Yes ☐ No

If yes, this Worksheet is complete.

If no, complete Sections 4 and 5 of this Worksheet.

Section 4. Description of Immediate Receiving Waters (Instructions Page 65)

Name of the immediate receiving waters: Click to enter text.

A. Receiving water type

Identify the appropriate description of the receiving waters.

☐ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: Click to enter text.

Average depth of the entire water body, in feet: Click to enter text.

Average depth of water body within a 500-foot radius of discharge point, in feet: Click to enter text.

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click to enter text.

B. Flow characteristics

If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one).

☐ Intermittent - dry for at least one week during most years

☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses

☐ Perennial - normally flowing

Check the method used to characterize the area upstream (or downstream for new dischargers).

☐ USGS flow records

☐ Historical observation by adjacent landowners

☐ Personal observation

☐ Other, specify: Click to enter text.

C. Downstream perennial confluences

List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point.

N/A

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

☐ Yes ☐ No

If yes, discuss how.

N/A

E. Normal dry weather characteristics

Provide general observations of the water body during normal dry weather conditions.

N/A

Date and time of observation: Click to enter text.

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☐ No

Section 5. General Characteristics of the Waterbody (Instructions Page 66)

A. Upstream influences

Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

☐ Oil field activities
☐ Upstream discharges
☐ Septic tanks
☐ Urban runoff
☐ Agricultural runoff
☐ Other(s), specify: Click to enter text.

B. Waterbody uses

Observed or evidences of the following uses. Check all that apply.

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Domestic water supply
- ☐ Park activities
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation
- ☐ Industrial water supply
- ☐ Other(s), specify: Click to enter text.

C. Waterbody aesthetics

Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

- ☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional
- ☐ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored
- ☐ Common Setting: not offensive; developed but uncluttered; water may be colored or turbid
- ☐ Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following **is required** for **all publicly owned treatment works**.

Section 1. All POTWs (Instructions Page 89)

A. Industrial users (IUs)

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs – non-categorical, and Other IUs.

If there are no users, enter 0 (zero).

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

☐ Yes ☒ No

If yes, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

N/A

C. Treatment plant pass through

In the past three years, has your POTW experienced pass through (see instructions)?

☐ Yes ☒ No

If yes, identify the dates, duration, a description of the pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IUs that may have caused pass through.

N/A

D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☒ No

If yes, complete Section 2.c. and 2.d. only, and skip Section 3.

If no to either question above, skip Section 2 and complete Section 3 for each significant industrial user and categorical industrial user.

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 90)

A. Substantial modifications

Have there been any **substantial modifications** to the approved pretreatment program that have not been submitted to the TCEQ for approval according to *40 CFR §403.18*?

☐ Yes ☐ No

If yes, identify the modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click to enter text.

B. Non-substantial modifications

Have there been any **non-substantial modifications** to the approved pretreatment program that have not been submitted to TCEQ for review and acceptance?

☐ Yes ☐ No

If yes, identify all non-substantial modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click to enter text.

C. Effluent parameters above the MAL

In Table 6.0(1), list all parameters measured above the MAL in the POTW's effluent monitoring during the last three years. Submit an attachment if necessary.

Table 3.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

Has any SIU, CIU, or other IU caused or contributed to any problems (excluding interferences or pass throughs) at your POTW in the past three years?

☐ Yes ☐ No

If yes, identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.

Click to enter text.

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 90)

A. General information

Company Name: Click to enter text.

SIC Code: Click to enter text.

Contact name: Click to enter text.

Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Telephone number: Click to enter text.

Email address: Click to enter text.

B. Process information

Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).

N/A

C. Product and service information

Provide a description of the principal product(s) or services performed.

N/A

D. Flow rate information

See the Instructions for definitions of "process" and "non-process wastewater."

Process Wastewater:

Discharge, in gallons/day: Click to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: Click to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the *i*nstructions?

☐ Yes ☐ No

Is the SIU or CIU subject to categorical pretreatment standards found in *40 CFR Parts 405-471*?

☐ Yes ☐ No

If subject to categorical pretreatment standards, indicate the applicable category and subcategory for each categorical process.

Category: Subcategories: Click to enter text.

Click or tap here to enter text. Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

F. Industrial user interruptions

Has the SIU or CIU caused or contributed to any problems (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?

☐ Yes ☐ No

If yes, identify the SIU, describe each episode, including dates, duration, description of problems, and probable pollutants.

N/A

CITY OF BOYD
WASTEWATER TREATMENT PLANT
PERMIT AMENDMENT WITH RENEWAL APPLICATION

TPDES PERMIT NO. WQ0010131-001

Exhibit 7.
Technical Report 1.1

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

The following information is required for new and amendment major applications.

Section 1. Justification for Permit (Instructions Page 57)

A. Justification of permit need

Provide a detailed discussion regarding the need for any phase(s) not currently permitted. Failure to provide sufficient justification may result in the Executive Director recommending denial of the proposed phase(s) or permit.

The City of Boyd is experiencing abnormal growth in both residential and commercial developments. Several new subdivisions in and adjacent to Boyd are requesting water and sewer service from the City. Subsequent phases for the same developments are already under the planning phases. In all, approximately 1,000 new residential connections are being planned in the Boyd area in the next 3-5 years.

B. Regionalization of facilities

For additional guidance, please review TCEQ's Regionalization Policy for Wastewater Treatment[1].

Provide the following information concerning the potential for regionalization of domestic wastewater treatment facilities:

1. *Municipally incorporated areas*

If the applicant is a city, then Item 1 is not applicable. Proceed to Item 2 Utility CCN areas.

Is any portion of the proposed service area located in an incorporated city?

☐ Yes ☐ No ☐ Not Applicable

If yes, within the city limits of: Click to enter text.

If yes, attach correspondence from the city.

Attachment: Click to enter text.

If consent to provide service is available from the city, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the city versus the cost of the proposed facility or expansion attached.

Attachment: Click to enter text.

2. *Utility CCN areas*

Is any portion of the proposed service area located inside another utility's CCN area?

☐ Yes ☒ No

[1] https://www.tceq.texas.gov/permitting/wastewater/tceq-regionalization-for-wastewater

If yes, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the CCN facilities versus the cost of the proposed facility or expansion.

Attachment: Click to enter text.

3. ***Nearby WWTPs or collection systems***

Are there any domestic permitted wastewater treatment facilities or collection systems located within a three-mile radius of the proposed facility?

☐ Yes ☒ No

If yes, attach a list of these facilities and collection systems that includes each permittee's name and permit number, and an area map showing the location of these facilities and collection systems.

Attachment: Click to enter text.

If yes, attach proof of mailing a request for service to each facility and collection system, the letters requesting service, and correspondence from each facility and collection system.

Attachment: Click to enter text.

If the facility or collection system agrees to provide service, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the facility or collection system versus the cost of the proposed facility or expansion.

Attachment: Click to enter text.

Section 2. Proposed Organic Loading (Instructions Page 59)

Is this facility in operation?

☒ Yes ☐ No

If no, proceed to Item B, Proposed Organic Loading.

If yes, provide organic loading information in Item A, Current Organic Loading

A. Current organic loading

Facility Design Flow (flow being requested in application): 0.98 MGD

Average Influent Organic Strength or BOD_5 Concentration in mg/l: 300

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): Click 2,452

Provide the source of the average organic strength or BOD_5 concentration.

INFLUENT GRAB SAMPLE

Exhibit 8.
Worksheet 2.0

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 64)

Is there a surface water intake for domestic drinking water supply located within 5 miles downstream from the point or proposed point of discharge?

☐ Yes ☒ No

If **no**, proceed it Section 2. **If yes**, provide the following:

Owner of the drinking water supply: Click to enter text.

Distance and direction to the intake: Click to enter text.

Attach a USGS map that identifies the location of the intake.

Attachment: Click to enter text.

Section 2. Discharge into Tidally Affected Waters (Instructions Page 64)

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

If **no**, proceed to Section 3. **If yes**, complete the remainder of this section. If no, proceed to Section 3.

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: Click to enter text.

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

If yes, provide the distance and direction from outfall(s).

N/A

C. Sea grasses

Are there any sea grasses within the vicinity of the point of discharge?

☐ Yes ☐ No

If yes, provide the distance and direction from the outfall(s).

N/A

Section 3. Classified Segments (Instructions Page 64)

Is the discharge directly into (or within 300 feet of) a classified segment?

☒ Yes ☐ No

If yes, this Worksheet is complete.

If no, complete Sections 4 and 5 of this Worksheet.

Section 4. Description of Immediate Receiving Waters (Instructions Page 65)

Name of the immediate receiving waters: Click to enter text.

A. Receiving water type

Identify the appropriate description of the receiving waters.

☐ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: Click to enter text.

Average depth of the entire water body, in feet: Click to enter text.

Average depth of water body within a 500-foot radius of discharge point, in feet: Click to enter text.

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click to enter text.

B. Flow characteristics

If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one).

☐ Intermittent - dry for at least one week during most years

☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses

☐ Perennial - normally flowing

Check the method used to characterize the area upstream (or downstream for new dischargers).

☐ USGS flow records

☐ Historical observation by adjacent landowners

☐ Personal observation

☐ Other, specify: Click to enter text.

C. Downstream perennial confluences

List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point.

N/A

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

☐ Yes ☐ No

If yes, discuss how.

N/A

E. Normal dry weather characteristics

Provide general observations of the water body during normal dry weather conditions.

N/A

Date and time of observation: Click to enter text.

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☐ No

Section 5. General Characteristics of the Waterbody (Instructions Page 66)

A. Upstream influences

Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

☐ Oil field activities
☐ Upstream discharges
☐ Septic tanks
☐ Urban runoff
☐ Agricultural runoff
☐ Other(s), specify: Click to enter text.

B. Waterbody uses

Observed or evidences of the following uses. Check all that apply.

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Domestic water supply
- ☐ Park activities
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation
- ☐ Industrial water supply
- ☐ Other(s), specify: Click to enter text.

C. Waterbody aesthetics

Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

- ☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional
- ☐ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored
- ☐ Common Setting: not offensive; developed but uncluttered; water may be colored or turbid
- ☐ Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

Exhibit 9.
Worksheet 6.0

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following **is required** for **all publicly owned treatment works**.

Section 1. All POTWs (Instructions Page 89)

A. Industrial users (IUs)

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs – non-categorical, and Other IUs.

If there are no users, enter 0 (zero).

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

☐ Yes ☒ No

If yes, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

N/A

C. Treatment plant pass through

In the past three years, has your POTW experienced pass through (see instructions)?

☐ Yes ☒ No

If yes, identify the dates, duration, a description of the pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IUs that may have caused pass through.

N/A

D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☒ No

If yes, complete Section 2.c. and 2.d. only, and skip Section 3.

If no to either question above, skip Section 2 and complete Section 3 for each significant industrial user and categorical industrial user.

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 90)

A. Substantial modifications

Have there been any **substantial modifications** to the approved pretreatment program that have not been submitted to the TCEQ for approval according to *40 CFR §403.18*?

☐ Yes ☐ No

If yes, identify the modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click to enter text.

B. Non-substantial modifications

Have there been any **non-substantial modifications** to the approved pretreatment program that have not been submitted to TCEQ for review and acceptance?

☐ Yes ☐ No

If yes, identify all non-substantial modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click to enter text.

C. Effluent parameters above the MAL

In Table 6.0(1), list all parameters measured above the MAL in the POTW's effluent monitoring during the last three years. Submit an attachment if necessary.

Table 3.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

Has any SIU, CIU, or other IU caused or contributed to any problems (excluding interferences or pass throughs) at your POTW in the past three years?

☐ Yes ☐ No

If yes, identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.

Click to enter text.

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 90)

A. General information

Company Name: Click to enter text.

SIC Code: Click to enter text.

Contact name: Click to enter text.

Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Telephone number: Click to enter text.

Email address: Click to enter text.

B. Process information

Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).

N/A

C. Product and service information

Provide a description of the principal product(s) or services performed.

N/A

D. Flow rate information

See the Instructions for definitions of "process" and "non-process wastewater."

Process Wastewater:

Discharge, in gallons/day: Click to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: Click to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the *i*nstructions?

☐ Yes ☐ No

Is the SIU or CIU subject to categorical pretreatment standards found in *40 CFR Parts 405-471*?

☐ Yes ☐ No

If subject to categorical pretreatment standards, indicate the applicable category and subcategory for each categorical process.

Category: Subcategories: Click to enter text.

Click or tap here to enter text. Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

F. Industrial user interruptions

Has the SIU or CIU caused or contributed to any problems (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?

☐ Yes ☐ No

If yes, identify the SIU, describe each episode, including dates, duration, description of problems, and probable pollutants.

N/A

Exhibit 10.
Plain Language Summary Form 20972

Plain Language Summary for Texas Pollutant Discharge Elimination System (TPDES) Permit Amendment Application

The City of Boyd (CN600734487) operates the City of Boyd Wastewater Treatment Facility RN101721652. It is an activated sludge process plant operated in the complete mix mode. The facility is located at 2,200 feet northeast of the intersection of FM 730 and SH 114, in the City of Boyd, Wise County, Texas 76023.

This application is for an amendment to increase discharge from an annual average flow of 240,000 gallons per day of treated domestic wastewater to 480,000 in Phase 2 and to 980,000 in Final Phase via Outfall 001.

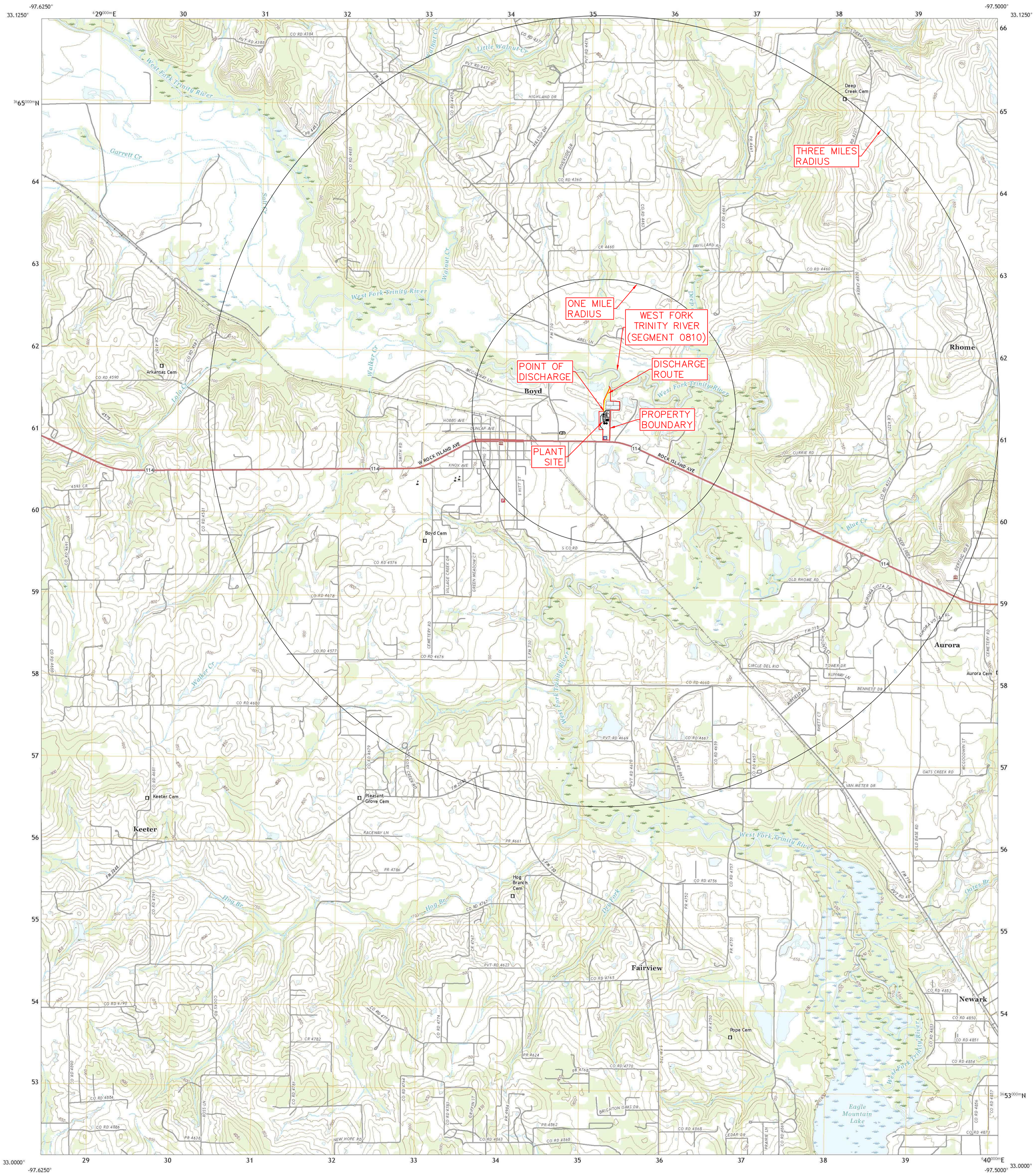
Discharges from the facility are expected to contain five-day biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), and *Escherichia coli*. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a mechanical bar screen, aeration basins, final clarifiers, sludge digesters, a sludge dewatering rotary press, sludge dewatering beds, and chlorine contact chambers.

Attachment 1.
Original USGS Map(s)

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

BOYD QUADRANGLE
TEXAS - WISE COUNTY
7.5-MINUTE SERIES

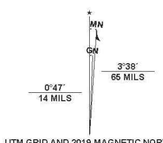


Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14S

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery	NAIP, October 2016 - November 2016
Roads	U.S. Census Bureau, 2015 - 2018
Names	GNIS, 1979 - 2021
Hydrography	National Hydrography Dataset, 2003 - 2018
Contours	National Elevation Dataset, 2021
Boundaries	Multiple sources; see metadata file 2019 - 2021
Wetlands	FWS National Wetlands Inventory Not Available



UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
PB
Grid Zone Designation
14S

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

QUADRANGLE LOCATION

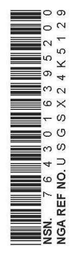
1	2	3
4		5
6	7	8

1 Bridgeport East
2 Decatur
3 Bluett
4 Cottondale
5 Rhome
6 Springtown
7 Azle
8 Avondale

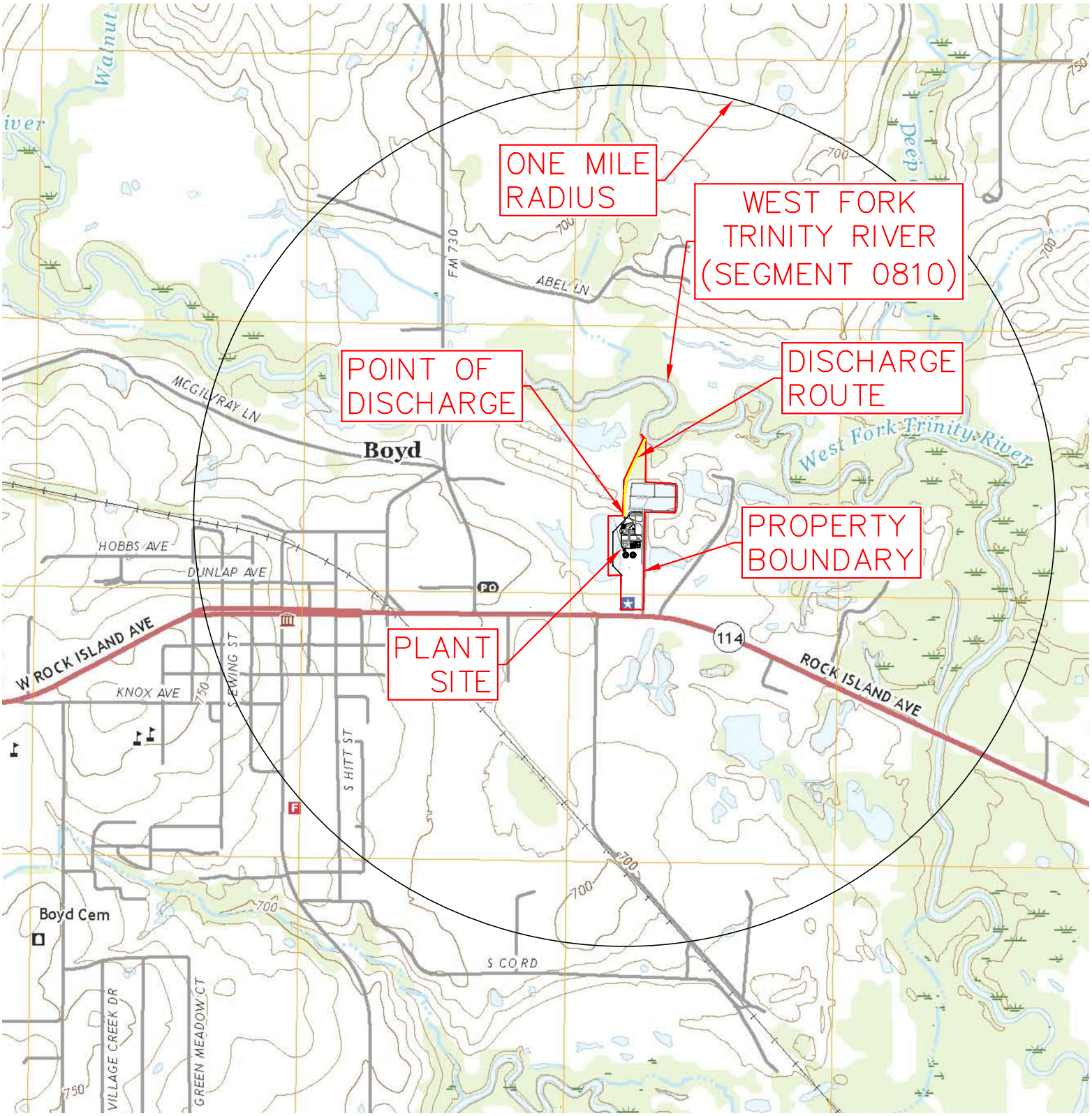
ADJOINING QUADRANGLES

ROAD CLASSIFICATION

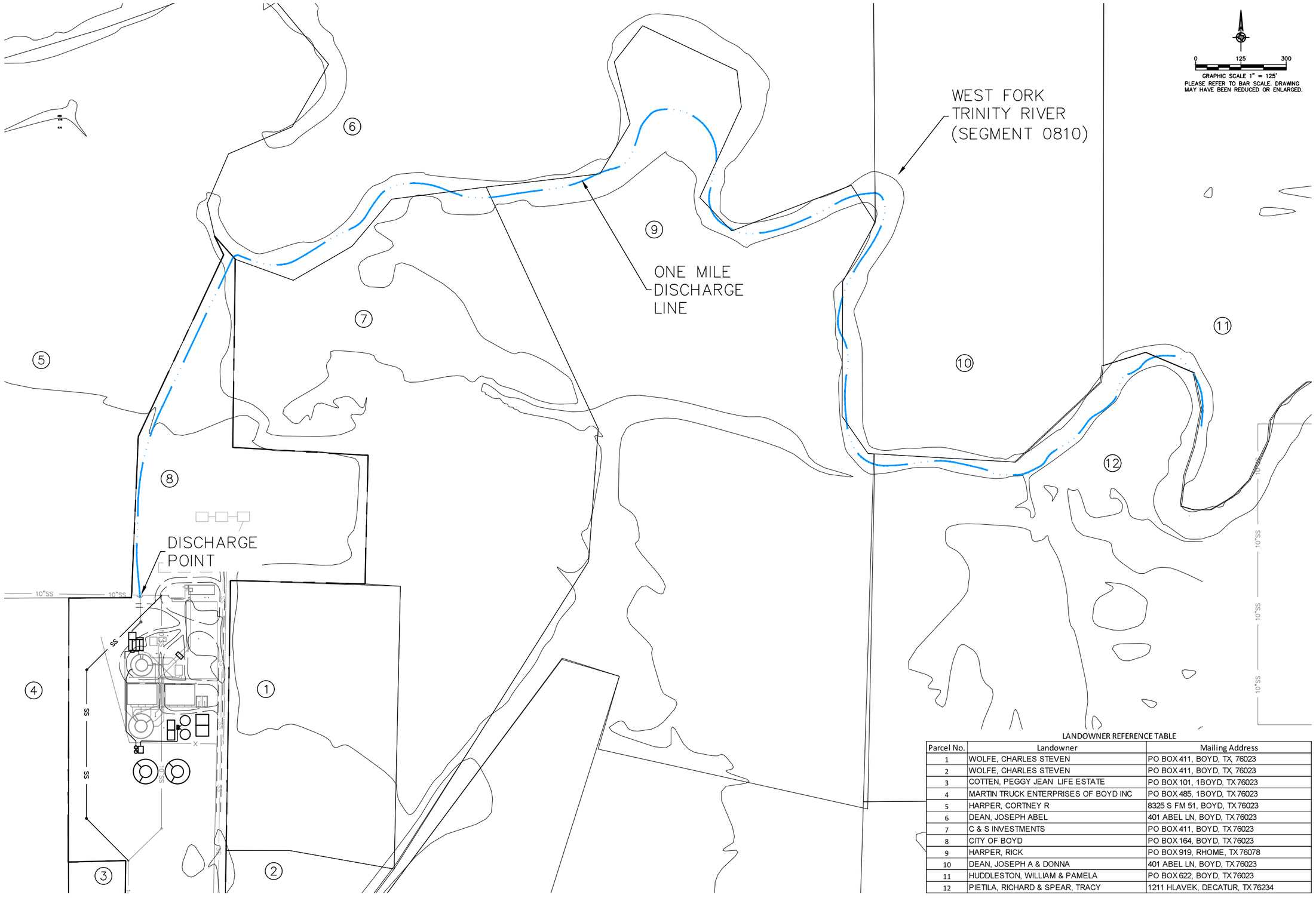
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route



BOYD, TX
2022


ONE MILE RADIUS
WEST FORK TRINITY RIVER (SEGMENT 0810)
POINT OF DISCHARGE
DISCHARGE ROUTE
PROPERTY BOUNDARY
PLANT SITE
Boyd
FM 730
ABEL LN
MCGILVRAY LN
West Fork Trinity River
HOBBS AVE
DUNLAP AVE
W ROCK ISLAND AVE
ROCK ISLAND AVE
114
KNOX AVE
S EWING ST
S HITT ST
S CO RD
Boyd Cem
VILLAGE CREEK DR
GREEN MEADOW CT
PO
700
750

Attachment 2.
Landowner Map(s)



LANDOWNER REFERENCE TABLE

Parcel No.	Landowner	Mailing Address
1	WOLFE, CHARLES STEVEN	PO BOX 411, BOYD, TX, 76023
2	WOLFE, CHARLES STEVEN	PO BOX 411, BOYD, TX, 76023
3	COTTEN, PEGGY JEAN LIFE ESTATE	PO BOX 101, 1BOYD, TX 76023
4	MARTIN TRUCK ENTERPRISES OF BOYD INC	PO BOX 485, 1BOYD, TX 76023
5	HARPER, CORTNEY R	8325 S FM 51, BOYD, TX 76023
6	DEAN, JOSEPH ABEL	401 ABEL LN, BOYD, TX 76023
7	C & S INVESTMENTS	PO BOX 411, BOYD, TX 76023
8	CITY OF BOYD	PO BOX 164, BOYD, TX 76023
9	HARPER, RICK	PO BOX 919, RHOME, TX 76078
10	DEAN, JOSEPH A & DONNA	401 ABEL LN, BOYD, TX 76023
11	HUDDLESTON, WILLIAM & PAMELA	PO BOX 622, BOYD, TX 76023
12	PIETILA, RICHARD & SPEAR, TRACY	1211 HLAVEK, DECATUR, TX 76234

REVISIONS

#	DESCRIPTION	DATE
.	.	.
.	.	.

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3575 Lone Star Circle
Suite 124
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1850
TBPE Reg. No. F-368

CITY OF BOYD
WWTP EXPANSION
ATTACHMENT 2
LANDOWNER MAP

DATE: 30 Sept 2024
SCALE: 1"=20'
PROJECT: .
DRAWN BY: AL/HK
APPROV. BY: .

SHEET 1 OF 1

P:\BOYD\SEWERTREATMENT PLANT\DWG\WWTP_EXBASE.DWG HK 30 SEPT 2024 © BELCHEFF & ASSOCIATES, INC 2024

Charles Steven Wolfe
PO Box 411
Boyd, Tx 76023

Peggy Jean Cotton Life Estate
PO Box 101
Boyd, Tx 76023

Martin Truck Enterprises
PO Box 485
Boyd, Tx, 76023

CORTNEY R HARPER
8325 FM 51
BOYD, Tx 76023

JOSEPH ABEL DEAN
401 ABEL LANE
BOYD, TX 76023

C & S INVESTMENTS
PO BOX 411
BOYD, TX 76023

CITY OF BOYD
PO BOX 164
BOYD, TX 76023

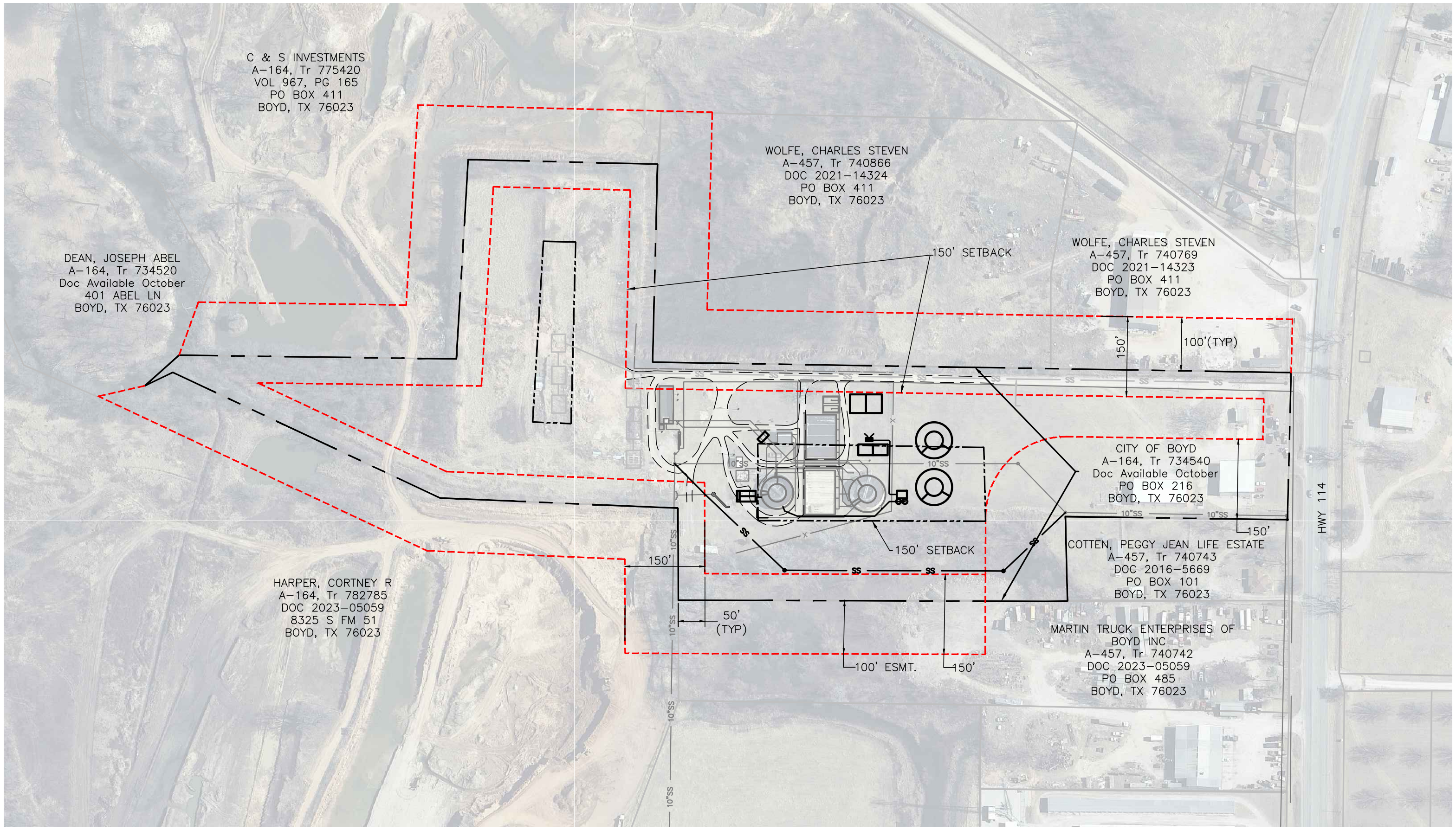
RICK HARPER
PO BOX 919
RHOME, TX 76078

JOSEPH & DONNA DEAN
401 ABEL LANE
BOYD, TX 76023

WILLIAM & PAMELA HUDDLESTON
PO BOX 622
BOYD, TX 76023

RICHARD PIETILA & TRACY SPEAR
1211 HLAVEK
DECATUR, TX 76234

Attachment 3.
Buffer Zone Map



REVISIONS

#	DESCRIPTION	DATE

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3575 Lone Star Circle
Suite 124
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1850
TBPE Reg. No. F–366

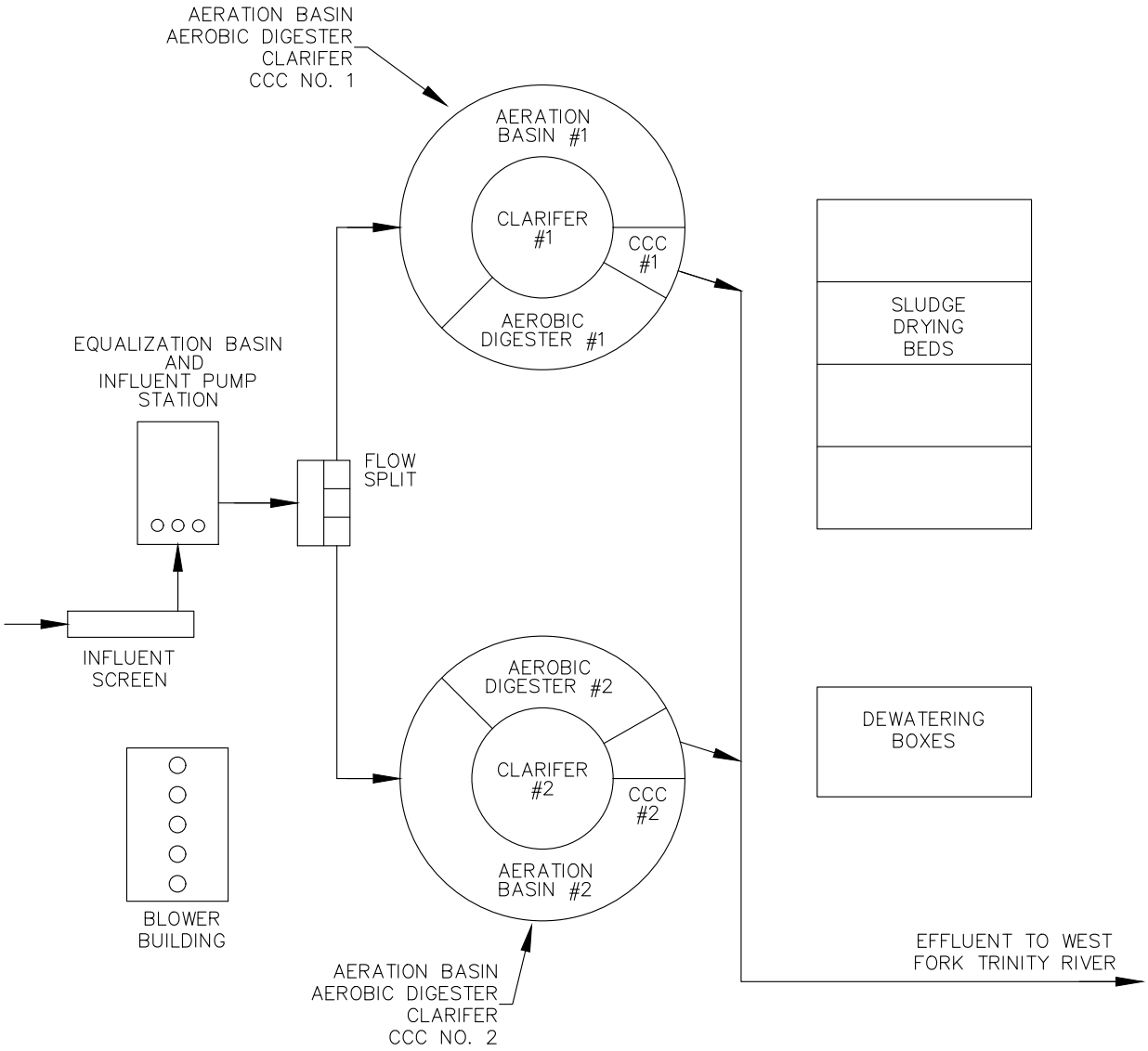
CITY OF BOYD
SITE DRAWING
BUFFER ZONE MAP

DATE: 24 Sept 2024
SCALE: 1"=100'
PROJECT:
DRAWN BY: AL/HK
APPROV. BY: MLA

SHEET 1 OF 1

Attachment 4.
Flow Diagram(s)

FLOW DIAGRAM #1



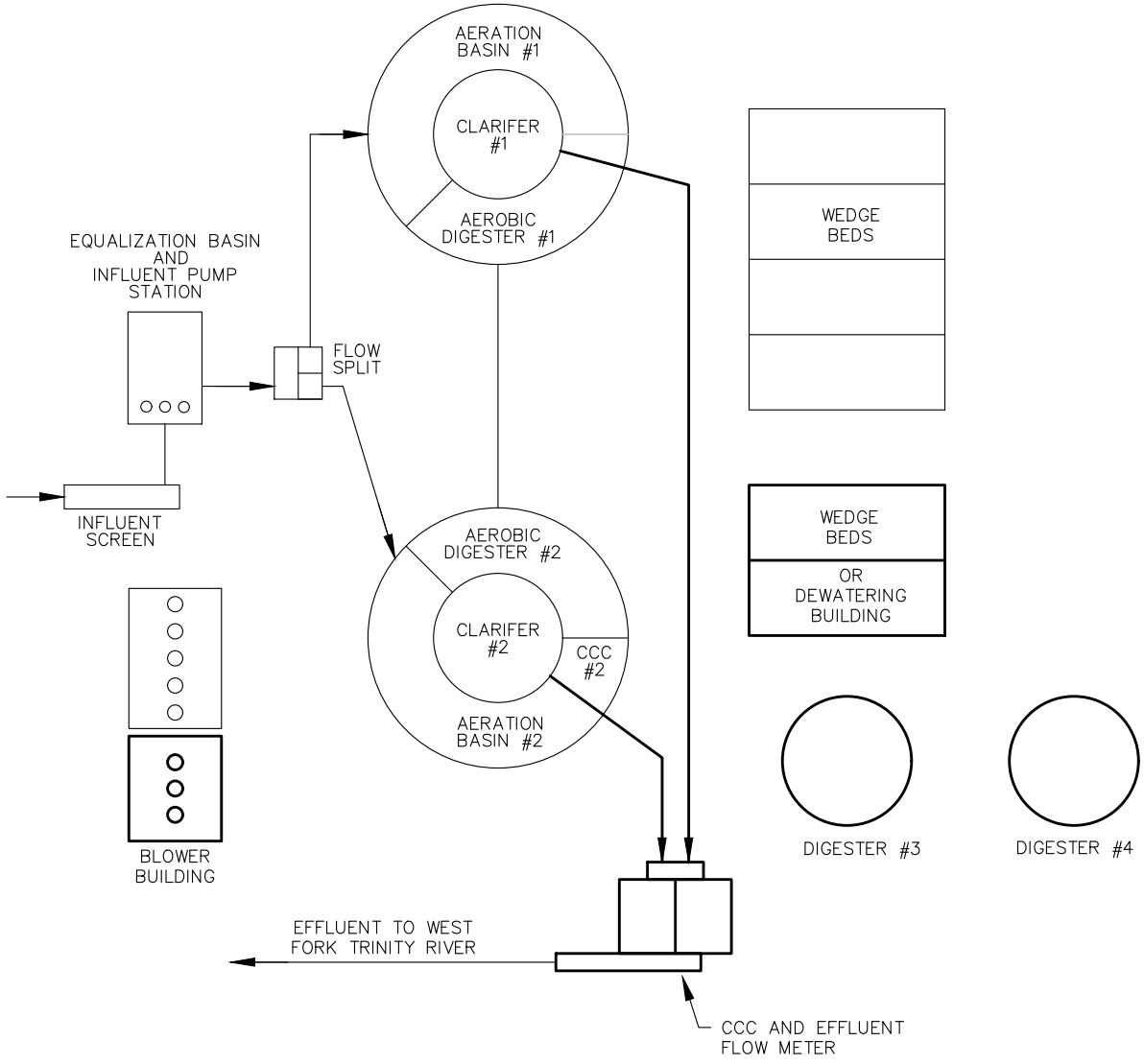
ATTACHMENT #4
FLOW DIAGRAM 1
EXISTING/INTERIM 1 PHASE – 0.24 MGD

CITY OF BOYD

05 Sept 2024

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3575 Lone Star Circle
Suite 124
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1850
TBPE Reg. No. F-368

FLOW DIAGRAM #2



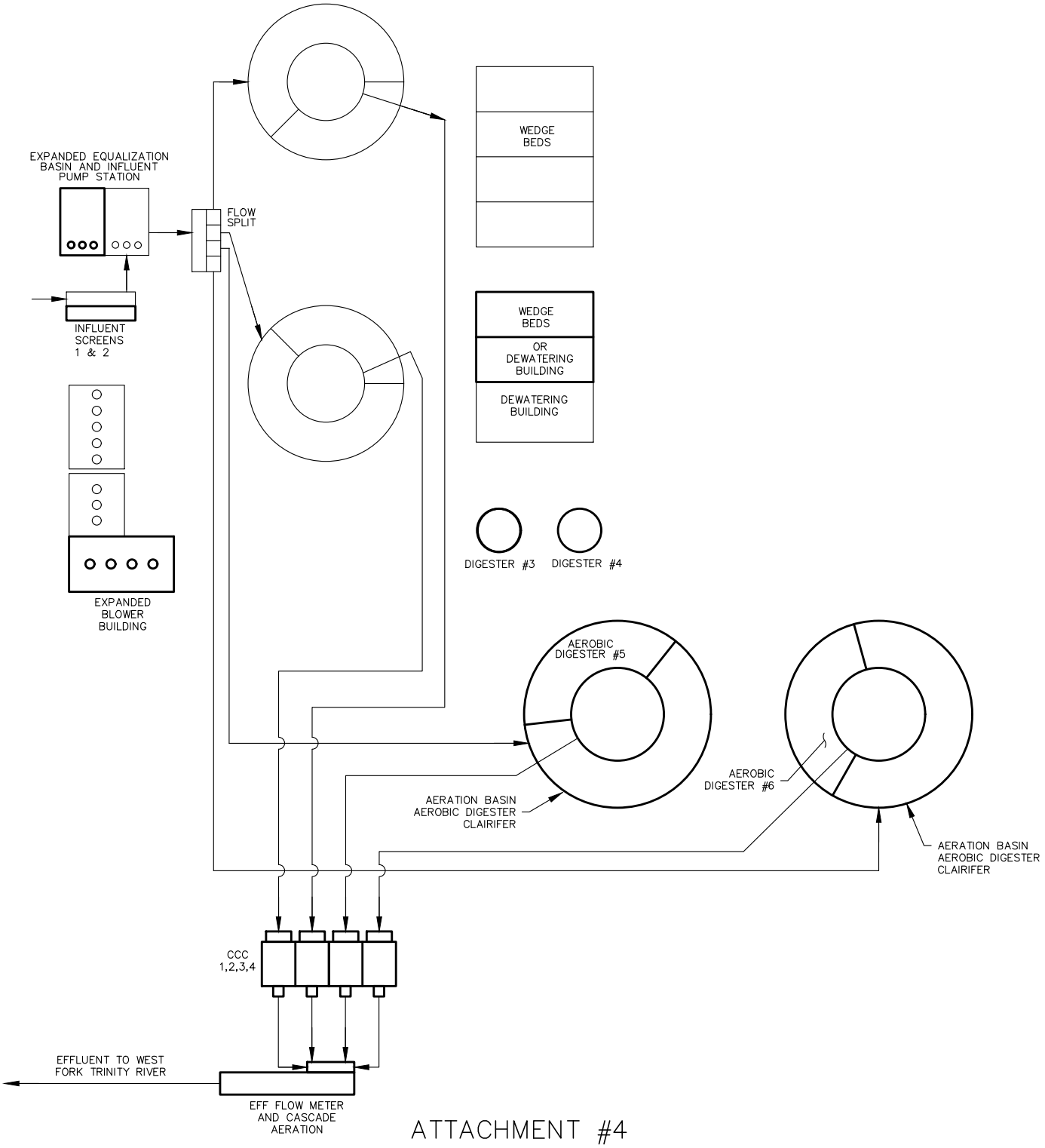
ATTACHMENT #4
FLOW DIAGRAM 2
INTERIM 2 PHASE – 0.48 MGD

CITY OF BOYD

05 Sept 2024

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3575 Lone Star Circle
Suite 124
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1850
TBPE Reg. No. F-368

FLOW DIAGRAM #3



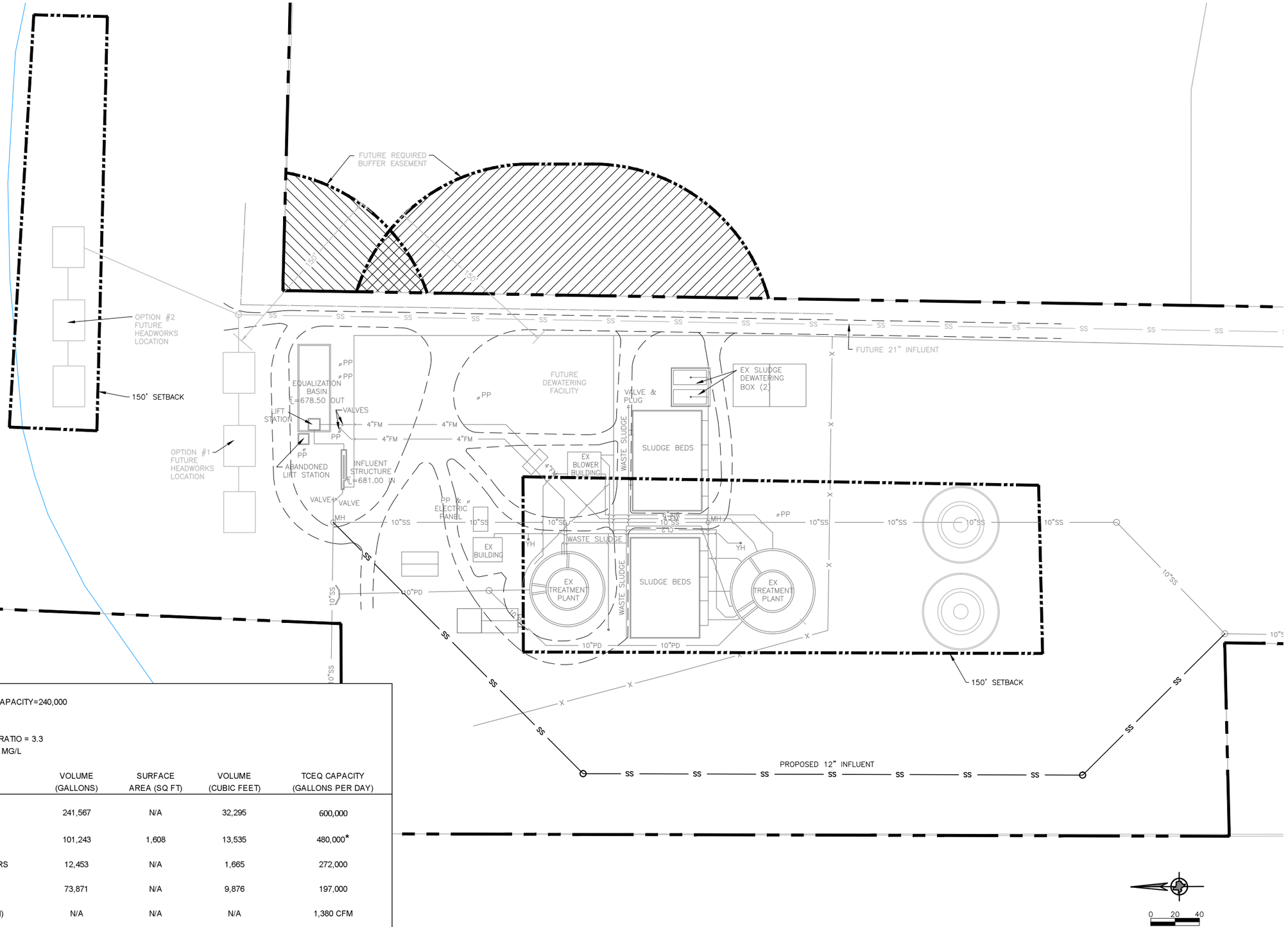
ATTACHMENT #4
FLOW DIAGRAM 3
FINAL PHASE – 0.99 MGD

CITY OF BOYD

05 Sept 2024

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3575 Lone Star Circle
Suite 124
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1850
TBPE Reg. No. F-368

Attachment 5.
Site Drawing



CITY OF BOYD EXISTING WWTP PERMITTED CAPACITY=240,000 ASSUMPTIONS: PEAK-TO-AVERAGE FLOW RATIO = 3.3 INFLUENT 5-DAY BOD = 300 MG/L				
TREATMENT UNIT	VOLUME (GALLONS)	SURFACE AREA (SQ FT)	VOLUME (CUBIC FEET)	TCEQ CAPACITY (GALLONS PER DAY)
AERATION BASINS	241,567	N/A	32,295	600,000
CLARIFIERS	101,243	1,608	13,535	480,000*
CHLORINE CONTACT CHAMBERS	12,453	N/A	1,665	272,000
DIGESTERS	73,871	N/A	9,876	197,000
BLOWERS (5 @ 345 CFM EACH)	N/A	N/A	N/A	1,380 CFM
* REQUIRES VARIANCE TO DETENTION TIME AT PEAK FLOW				

REVISIONS

#	DESCRIPTION	DATE
.	.	.
.	.	.

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3575 Lone Star Circle
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1804
TBPE Reg. No. F-368

CITY OF BOYD
SITE DRAWING
ATTACHMENT 5
EXISTING/INTERIM 1 PHASE–0.24 MGD

DATE: 09 Sept 2024
SCALE: 1"=40'
PROJECT: _____
DRAWN BY: AL/HK
APPROV. BY: MLA

SHEET 1 OF 3

P:\BOYD\SEWER TREATMENT PLANT\DWG\BOYD_WWTP_INTERIM_SITE PLAN.DWG LAST SAVED BY: HK PLOT DATE: 09 SEPT 2024 © BELCHEFF & ASSOCIATES, INC 2024

FUTURE DEWATERING FACILITY

EX SLUDGE DEWATERING BOX (2)

35'x30' DEWATERING BUILDING

2-28' DIA. AERATION DIGESTERS

DIGESTER #3

DIGESTER #4

PROPOSED BLOWER BUILDING

10'x20 INFLUENT FLOW SPLIT

VALVE & PLUG

SLUDGE BEDS

WASTE SLUDGE

EX BLOWER BUILDING

PP & ELECTRIC PANEL

EX BUILDING

YH

EX TREATMENT PLANT (0.12 MGD)

PROP. SSMH

SLUDGE PS

WAS PS

MH

PROPOSED CHLORINE CONTACT TANK

NOTE:
FOR INTERIM 2 PHASE, ELIMINATE TWO EXISTING CHLORINE CHAMBERS AND USE FOR ADDITIONAL SLUDGE DIGESTION VOLUME. CONSTRUCT NEW CHLORINE CONTACT TANK.

LEGEND

XX"XXX	EXISTING LINE
XXXX	PROPOSED LINE
XXXX	FUTURE LINE

AIR	AIR SUPPLY
CE	CLARIFIER EFFLUENT
CL2	CHLORINE
DR	DRAIN
MGD	MILLION GALLONS PER DAY
MH/SSMH	SANITARY SEWER MANHOLE
PD	PLANT DISCHARGE
PS	PUMP STATION
RAS	RETURN ACTIVATED SLUDGE
SS	SANITARY SEWER
W2	2" WATER LINE
WAS	WASTE ACTIVATED SLUDGE
WW8	WASTE LINE / DRAIN
YH	YARD HYDRANT

0 10 20

REVISIONS

#	DESCRIPTION	DATE
.	.	.
.	.	.

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3075 Lone Star Circle
Suite 104
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1804
TBPE Reg. No. F-368

CITY OF BOYD
SITE DRAWING
ATTACHMENT 5
INTERIM 2 PHASE-0.48 MGD

DATE: 11 Sept 2024
SCALE: 1"=20'
PROJECT: .
DRAWN BY: AL/HK
APPROV. BY: MLA

SHEET 2 OF 3

P:\JOBS\15SEWER\TREATMENT P3_ANY\DWG\WWTP_EXBASE.DWG LAST SAVED BY: HK PLOT DATE: 11 SEPT 2024 © BELCHEFF & ASSOCIATES, INC 2024

FUTURE DEWATERING FACILITY

PP

EX SLUDGE DEWATERING BOX (2)

35'x30' DEWATERING BUILDING

2–28' DIA. AEROBIC DIGESTERS

VALVE & PLUG

10'x20 INFLUENT FLOW SPLIT

4"FM

SLUDGE BEDS

DIGESTER #3

DIGESTER #4

EX BLOWER BUILDING

WASTE SLUDGE

PROPOSED BLOWER BUILDING

PP & ELECTRIC PANEL

6"AIR

Cl2

MH

10"SS

PP

AERATION BASIN #3

68' DIA

33' DIA

CLARIFER #3

DIGESTER #5

EX BUILDING

YH

WASTE SLUDGE

AERATION BASIN #4

68' DIA

33' DIA

CLARIFER #4

DIGESTER #6

PROPOSED CHLORINE CONTACT TANK

EX TREATMENT PLANT (0.12 MGD)

SLUDGE BEDS

EX TREATMENT PLANT (0.12 MGD)

SLUDGE PS

WAS PS

10"PD

SS

WAS

X

LEGEND

XX"XXX	EXISTING LINE
XXXX	PROPOSED LINE
XXXX	FUTURE LINE

AIR	AIR SUPPLY
CE	CLARIFIER EFFLUENT
CL2	CHLORINE
DR	DRAIN
MGD	MILLION GALLONS PER DAY
MH/SSMH	SANITARY SEWER MANHOLE
PD	PLANT DISCHARGE
PS	PUMP STATION
RAS	RETURN ACTIVATED SLUDGE
SS	SANITARY SEWER
W2	2" WATER LINE
WAS	WASTE ACTIVATED SLUDGE
WW8	WASTE LINE / DRAIN
YH	YARD HYDRANT

0 10 20

REVISIONS

#	DESCRIPTION	DATE
.	.	.
.	.	.

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3075 Lone Star Circle
Suite 104
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1804
TBPE Reg. No. F-368

CITY OF BOYD
SITE DRAWING
ATTACHMENT 5
FINAL PHASE–0.99 MGD

DATE: 11 Sept 2024
SCALE: 1"=20'
PROJECT: .
DRAWN BY: AL/HK
APPROV. BY: MLA

SHEET 3 OF 3

P:\BOYD\SEWER\TREATMENT PLANT\DWG\WWTP_EXBASE.DWG LAST SAVED BY: HK PLOT DATE: 11 SEPT 2024 © BELCHEFF & ASSOCIATES, INC 2024

Attachment 6.
Original Photographs

CITY OF BOYD
WWTP PERMIT AMENDMENT APPLICATION WITH RENEWAL
TPDES PERMIT NO. WQ0010131-001
as of August 2024

NEW CCC LOCATION

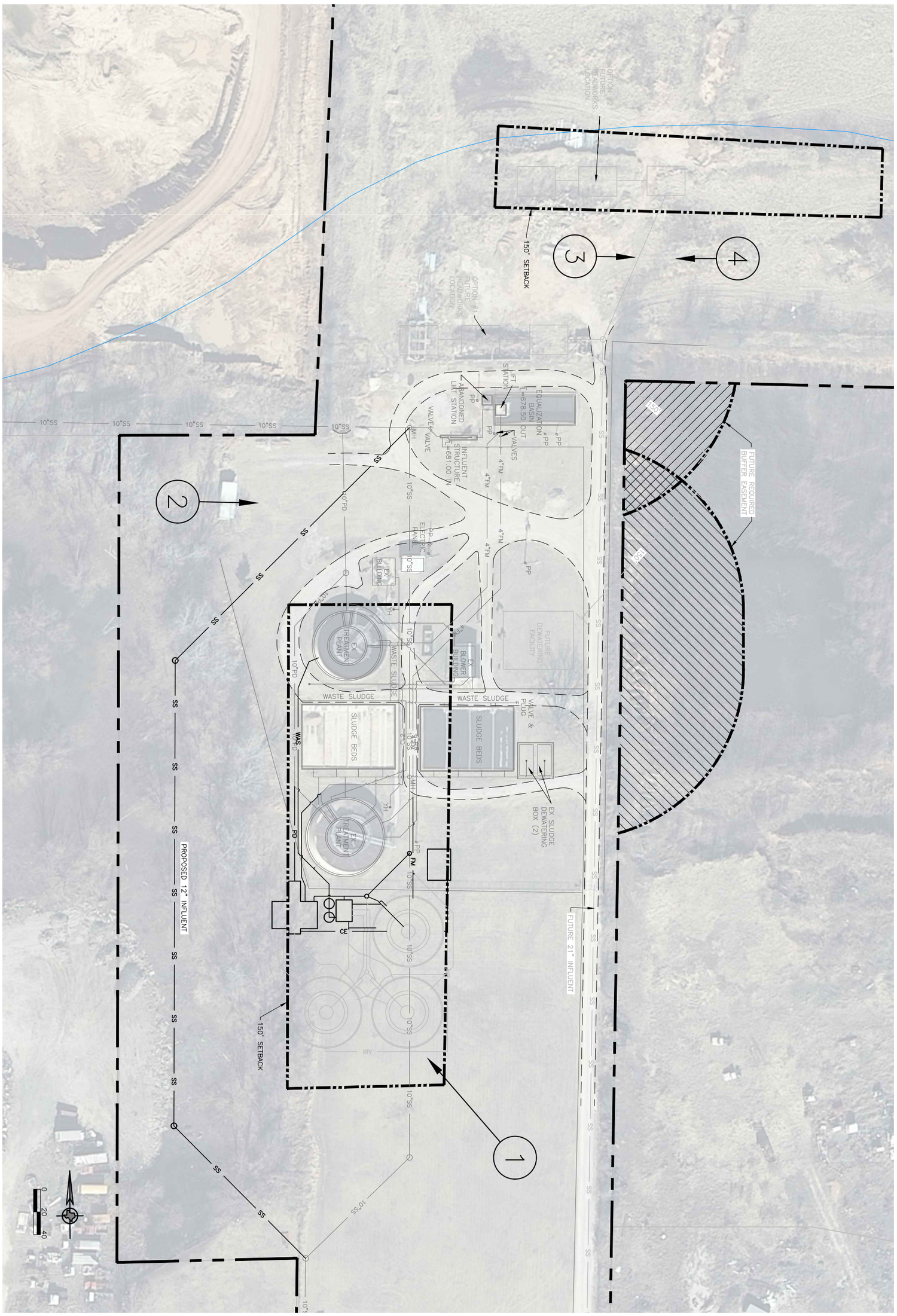
NEW STRUCTURE LOCATION

OUTFALL UPSTREAM

OUTFALL DOWNSTREAM

BELCHEFF & ASSOCIATES, INC.
(F368)

P:\BOYD\SEWER\TREATMENT PLANT\DWG\BOYD_WWTP_INTERIM-SITE PLAN.DWG LAST SAVED BY: HK PLOT DATE: 02 OCT 2024 © BELCHEFF & ASSOCIATES, INC 2024



SHEET 1 OF 3

DATE: 02 Oct 2024
SCALE: 1"=40'
PROJECT: _____
DRAWN BY: AL/HK
APPROV. BY: MLA

CITY OF BOYD
SITE DRAWING
ATTACHMENT 6
PHOTO LOCATIONS

Belcheff & Associates, Inc.
Municipal Engineering and Program Management
3575 Lone Star Circle
Suite 124
Fort Worth, Texas 76177
Phone: 817.431.1800
Fax: 817.431.1850
TBPE Reg. No. F-368

REVISIONS

#	DESCRIPTION	DATE

CITY OF BOYD
WASTEWATER TREATMENT PLANT
PERMIT AMENDMENT WITH RENEWAL APPLICATION

TPDES PERMIT NO. WQ0010131-001

Attachment 7.
Design Calculations

CITY OF BOYD
WWTP PERMIT AMENDMENT WITH RENEWAL APPLICATION
ATTACHMENT 7
TPDES PERMIT NO. WQ0010131-001

DESIGN CALCULATIONS - EXISTING/INTERIM I PHASE (0.24 MGD, 600 lbs BOD5/day)

Influent Quality Characteristics - The raw sewage quality characteristics used for design purposes are as follows:

Parameter	Concentration
BOD5	300 mg/l
TSS	240 mg/l

Influent Flow Characteristics - The hydraulic design of the facility must ensure that the plant will operate under the most extreme conditions anticipated. The plant process and hydraulic design for this facility are as follows:

Flow	Gallons Per Day	Gallons Per Minute
Average Daily Flow (Qave)	240,000	167
Peak 2-Hour Flow (Qpk)	960,000	666

Loading	Pounds Per Day
BOD5	600
TSS	480

Process Design - The treatment plant has been designed to produce an effluent quality in compliance with the proposed permitted parameters of: BOD5 = 20 mg/l; TSS = 20 mg/l; Dissolved Oxygen = 2 mg/l. The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after detention time of at least 20 minutes based on peak flow.

The anticipated operating range for MLSS is 3,000 mg/l to 6,000 mg/l.

Aeration Basin	
TCEQ maximum organic loading	35 lbs/day/1000 cubic feet
Total aeration volume available	32,295 cubic feet
Organic loading in aeration basin	18.6 lbs/day/1000 cubic feet

Clarifier	
TCEQ Ch317 Maximum surface loading (Qpk)	1,400 gallons/day/square foot
TCEQ Ch317 minimum detention time (Qpk)	1.3 hours
TCEQ Ch217 Maximum surface loading (Qpk)	1,200 gallons/day/square foot
TCEQ Ch217 minimum detention time	1.8 hours

(Qpk)	
TCEQ maximum weir loading (Qpk)	20,000 gallons/day/foot
Clarifier 1(Ch317) surface area	804 square feet (total)
Clarifier 1 (Ch317) side-water depth	7.33 feet
Clarifier 1 (Ch317) volume	5,895 cubic feet (44,096 gallons) (total)
Clarifier 1(Ch317) surface loading (Qpk)	597 gallons / day / sq. ft.
Clarifier 2(Ch217) surface area	804 square feet (total)
Clarifier 2(Ch217) side-water depth	9.5 feet
Clarifier 2(Ch217) volume	7,640 cubic feet (57,150 gallons)
Clarifier 2(Ch217) surface loading (Qpk)	597 gallons / day / sq. ft.
Detention time (Qpk)	2.5 hours
Weir length	170 feet (total)
Weir loading (Qpk)	5,647 gallons/day/foot

Aerobic Digester	
TCEQ design volume	20 cubic feet/lb BOD5/day
TCEQ minimum sludge retention time	15 days
Digester sludge retention time	48 days
Digester volume	10,400 cubic feet (total)
Available volume	17.3 cubic feet/lb BOD5/day
Max. sludge flow	1,632 gallons/day
Min. retention time	48 days

Air Requirements	
TCEQ minimum aeration requirements	1,800 SCF/lb BOD5
TCEQ minimum digester requirements	30 SCFM/1000 cubic feet of digester volume
Aeration required	750 SCFM
Digester air required	312 SCFM
Total Air Required (incl 12% for air lifts)	1,189 SCFM
Air provided	1,380 SCFM

PLANT DESIGN FEATURES

A. STANDBY POWER SYSTEM

The plant is equipped with an existing standby power unit. The diesel engine package is in excellent condition and has sufficient capacity to handle the existing loads of all components:

B. ALARM FEATURES

The plant will be equipped with an audible alarm and light. The alarm light is for pump high level alarm.

C. DESIGN FEATURES FOR OPERATING FLEXIBILITY

1. BAR SCREEN
   The mechanical bar screen is designed so that it can be removed from service for cleaning or repairs. A bypass channel with manually cleaned bar screen is included.

2. AERATION BASINS (Two Units)
   The aeration basins can be individually isolated for draining, cleaning or repairs. The two trains operate in parallel.

3. FINAL CLARIFIERS (Two Units)
   The final clarifiers can be individually isolated for draining, cleaning or repairs. Flow-split will allow diversion to any or all units.

D. EQUIPMENT DUPLICITY

1. BLOWERS
   A total of 5 with four required to meet design aeration rate, and one standby unit.

E. OVERFLOW PREVENTION

All units are designed with free board which will allow time for eliminating any line blockage problem.

CITY OF BOYD
WWTP PERMIT AMENDMENT WITH RENEWAL APPLICATION
ATTACHMENT 7
TPDES PERMIT NO. WQ0010131-001

DESIGN CALCULATIONS - INTERIM II PHASE (0.48 MGD, 1,200 lbs BOD5/day)

Influent Quality Characteristics - The raw sewage quality characteristics used for design purposes are as follows:

Parameter	Concentration
BOD5	300 mg/l
TSS	240 mg/l

Influent Flow Characteristics - The hydraulic design of the facility must ensure that the plant will operate under the most extreme conditions anticipated. The plant process and hydraulic design for this facility are as follows:

Flow	Gallons Per Day	Gallons Per Minute
Average Daily Flow (Qave)	480,000	333
Peak 2-Hour Flow (Qpk)	1,584,000	1,099

Loading	Pounds Per Day
BOD5	1,200
TSS	960

Process Design - The treatment plant has been designed to produce an effluent quality in compliance with the proposed permitted parameters of: BOD5 = 20 mg/l; TSS = 20 mg/l; Dissolved Oxygen = 2 mg/l. The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after detention time of at least 20 minutes based on peak flow.

The anticipated operating range for MLSS is 3,000 mg/l to 6,000 mg/l.

Aeration Basin	
TCEQ maximum organic loading	45 lbs/day/1000 cubic feet
Total aeration volume available	32,295 cubic feet
Organic loading in aeration basin	37.2 lbs/day/1000 cubic feet

Clarifier	
TCEQ Ch317 Maximum surface loading (Qpk)	1,400 gallons/day/square foot
TCEQ Ch317 minimum detention time (Qpk)	1.3 hours
TCEQ Ch217 Maximum surface loading (Qpk)	1,200 gallons/day/square foot
TCEQ Ch217 minimum detention time (Qpk)	1.8 hours

TCEQ maximum weir loading (Qpk)	20,000 gallons/day/foot
Clarifier 1(Ch317) surface area	804 square feet (total)
Clarifier 1 (Ch317) side-water depth	7.33 feet
Clarifier 1 (Ch317) volume	5,895 cubic feet (44,096 gallons) (total)
Clarifier 1(Ch317) surface loading (Qpk)	985 gallons / day / sq. ft.
Clarifier 2(Ch217) surface area	804 square feet (total)
Clarifier 2(Ch217) side-water depth	9.5 feet
Clarifier 2(Ch217) volume	7,640 cubic feet (57,150 gallons)
Clarifier 2(Ch217) surface loading (Qpk)	985 gallons / day / sq. ft.
Clarifier 1 (Ch317) Detention time (Qpk)	1.3 hours
Clarifier 2(Ch217) Detention time (Qpk)	1.7 hours*
Weir length	170 feet (total)
Weir loading (Qpk)	9,318 gallons/day/foot

Aerobic Digester	
TCEQ design volume	20 cubic feet/lb BOD5/day
TCEQ minimum sludge retention time	15 days
Digester sludge retention time	55 days
Digester volume	24,020 cubic feet (total)
Available volume	20 cubic feet/lb BOD5/day
Max. sludge flow	3,260 gallons/day
Min. retention time	55 days

Air Requirements	
TCEQ minimum aeration requirements	1,800 SCF/lb BOD5
TCEQ minimum digester requirements	30 SCFM/1000 cubic feet of digester volume
Aeration required	1,500 SCFM
Digester air required	721 SCFM
Total Air Required (incl 12% for air lifts)	2,487 SCFM
Air provided	2,580 SCFM

PLANT DESIGN FEATURES

A. STANDBY POWER SYSTEM

The plant is equipped with an existing standby power unit. The diesel engine package will be upgraded to handle the increased loads of the following components:

1. Additional Blowers to increase from 1,380 to 2,580 SCFM
2. Sludge Dewatering Building
3. Enlarged Headworks and Influent Pump Station

B. ALARM FEATURES

The plant will be equipped with an audible alarm and light. The alarm light is for pump high level alarm.

C. DESIGN FEATURES FOR OPERATING FLEXIBILITY

1. BAR SCREEN
   The mechanical bar screen is designed so that it can be removed from service for cleaning or repairs. A bypass channel with manually cleaned bar screen is included.

2. AERATION BASINS (Two Units)
   The aeration basins can be individually isolated for draining, cleaning or repairs. The three trains will operate in parallel.

3. FINAL CLARIFIERS (Two Units)
   The final clarifiers can be individually isolated for draining, cleaning or repairs. Flow-split will allow diversion to any or all units.

D. EQUIPMENT DUPLICITY

1. BLOWERS
   New blowers will be installed for a total of 8 with six required to meet design aeration rate, and two standby units.

E. OVERFLOW PREVENTION

All units are designed with free board which will allow time for eliminating any line blockage problem.

CITY OF BOYD
WWTP PERMIT AMENDMENT WITH RENEWAL APPLICATION
ATTACHMENT 7
TPDES PERMIT NO. WQ0010131-001

DESIGN CALCULATIONS - FINAL PHASE (0.98 MGD, 2,452 lbs BOD5/day)

Influent Quality Characteristics - The raw sewage quality characteristics used for design purposes are as follows:

Parameter	Concentration
BOD5	300 mg/l
TSS	240 mg/l

Influent Flow Characteristics - The hydraulic design of the facility must ensure that the plant will operate under the most extreme conditions anticipated. The plant process and hydraulic design for this facility are as follows:

Flow	Gallons Per Day	Gallons Per Minute
Average Daily Flow (Qave)	980,000	680
Peak 2-Hour Flow (Qpk)	3,230,000	2,242

Loading	Pounds Per Day
BOD5	2,452
TSS	1,962

Process Design - The treatment plant has been designed to produce an effluent quality in compliance with the proposed permitted parameters of: BOD5 = 20 mg/l; TSS = 20 mg/l; Dissolved Oxygen = 2 mg/l. The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after detention time of at least 20 minutes based on peak flow.

The anticipated operating range for MLSS is 3,000 mg/l to 6,000 mg/l.

Aeration Basin	
TCEQ maximum organic loading	45 lbs/day/1000 cubic feet
Total aeration volume available	83,077 cubic feet
Organic loading in aeration basin	29.5 lbs/day/1000 cubic feet

Clarifier	
TCEQ Ch317 Maximum surface loading (Qpk)	1,400 gallons/day/square foot
TCEQ Ch317 minimum detention time (Qpk)	1.3 hours
TCEQ Ch217 Maximum surface loading (Qpk)	1,200 gallons/day/square foot
TCEQ Ch217 minimum detention time (Qpk)	1.8 hours
TCEQ maximum weir loading (Qpk)	20,000 gallons/day/foot

Clarifier 1(Ch317) surface area	804 square feet
Clarifier 1 (Ch317) side-water depth	7.33 feet
Clarifier 1 (Ch317) volume	5,895 cubic feet (44,096 gallons)
Clarifier 1(Ch317) surface loading (Qpk)	1,004 gallons / day / sq. ft.
Clarifier 1 (Ch317) Detention time (Qpk)	1.3 hours
Clarifier 2 (Ch217) surface area	804 square feet
Clarifier 2 (Ch217) side-water depth	9.5 feet
Clarifier 2 (Ch217) volume	7,640 cubic feet (57,150 gallons)
Clarifier 2 (Ch217) surface loading (Qpk)	1,004 gallons / day / sq. ft.
Clarifier 2 (Ch217) Detention time (Qpk)	1.7 hours*
Clarifier 3+4 (Ch217) surface area	1,710 square feet (total)
Clarifier 3&4 (Ch217) side-water depth	12 feet
Clarifier 3&4 (Ch217) volume	20,528 cubic feet (153,549 gallons)
Clarifier 3+4 (Ch217) surface loading (Qpk)	944 gallons / day / sq. ft.
Clarifier 3+4 (Ch217) Detention time (Qpk)	2.3 hours
Weir length	350 feet (total)
Weir loading (Qpk)	9,229 gallons/day/foot

Aerobic Digester

TCEQ design volume	20 cubic feet/lb BOD5/day
TCEQ minimum sludge retention time	15 days
Digester sludge retention time	56 days
Digester volume	49,932 cubic feet (total)
Available volume	20 cubic feet/lb BOD5/day
Max. sludge flow	6,717 gallons/day
Min. retention time	*56 days*

Air Requirements

TCEQ minimum aeration requirements	1,800 SCF/lb BOD5
TCEQ minimum digester requirements	30 SCFM/1000 cubic feet of digester volume
Aeration required	3,065 SCFM
Digester air required	1,500 SCFM
Total Air Required (incl 12% for air lifts)	2,487 SCFM
Air provided	5,113 SCFM

PLANT DESIGN FEATURES

F. STANDBY POWER SYSTEM

The plant is equipped with an existing standby power unit. The diesel engine package will be upgraded to handle the increased loads of the following components:

1. Additional Blowers to increase from 2,580 to 5,160 SCFM
2. 2 Additional Final Clarifiers
3. Expanded Sludge Dewatering Building
4. Enlarged Headworks and Influent Pump Station

G. ALARM FEATURES

The plant will be equipped with an audible alarm and light. The alarm light is for pump high level alarm.

H. DESIGN FEATURES FOR OPERATING FLEXIBILITY

1. BAR SCREEN
   The mechanical bar screen is designed so that it can be removed from service for cleaning or repairs. A bypass channel with manually cleaned bar screen is included.

2. AERATION BASINS (Four Units)
   The aeration basins can be individually isolated for draining, cleaning or repairs. The four trains will operate in parallel.

3. FINAL CLARIFIERS (Four Units)
   The final clarifiers can be individually isolated for draining, cleaning or repairs. Flow-split will allow diversion to any or all units.

I. EQUIPMENT DUPLICITY

1. BLOWERS
   New blowers will be installed for a total of 12 with ten required to meet design aeration rate, and two standby units.

J. OVERFLOW PREVENTION

All units are designed with free board which will allow time for eliminating any line blockage problem.

Attachment 8.
Solids Management Plan

CITY OF BOYD
WWTP PERMIT AMENDMENT WITH RENEWAL APPLICATION
ATTACHMENT 8-SOLIDS MANAGEMENT PLANS
TPDES PERMIT NO. WQ0010131-001

CITY OF BOYD
SLUDGE PRODUCTION CALCULATIONS
SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN-EXISTING/INTERIM I PHASE (0.24 MGD, 600 LBS BOD$_5$/DAY)

Dimensions and capacities of aerobic digester

TCEQ design volume	20 cubic feet/lb BOD5/day
TCEQ minimum sludge retention time	15 days
Digester volume	10,400 cubic feet (17.3 cubic feet/lb BOD$_5$/day)
Digester dimensions	1 unit @ 38 feet X 15 feet X 9.5 feet deep & 1 unit @ 40 feet X 16.25 feet X 9.5 feet deep
Digester sludge retention time	22 days

BOD5 removal Influent concentration = 300 mg/1
Effluent concentration = 20 mg/1
Net removal = 280 mg/1

Solids generated	100% flow	75% flow	50% flow	25% flow
Pounds BOD5/day removed	560	420	280	140
Pounds of dry sludge produced*	177	133	89	44
Pounds of wet sludge produced**	13,615	10,211	6,808	3,404
Volume of wet sludge produced	1,632 gal	1,224 gal	816 gal	408 gal

* Assuming 0.315 pounds of dry sludge produced per pound of BOD5 removed.
** Assuming 1.3% solids

MLSS operating range = 5,440 mg/1 (see page 3 design calculations)

Sludge will stay in the digester, clear liquor will be decanted off the digester and returned to the headworks. Sludge is wasted from the final clarifiers to the aerobic digester. Some sludge from the clarifier is also returned to the aeration basins.

Removal schedule (days)	100%flow	75% flow	50% flow	25% flow
Days between sludge removal	48	64	95	191

Sludge will be removed from the digester when the digester is full of thickened solids. Digested sludge will be treated with polymer and pumped to the dewatering box in the existing phase and to the proposed rotary or screw press in the final phase. Then sludge will be hauled by a registered transporter to the designated landfill for disposal.

CITY OF BOYD
WWTP PERMIT AMENDMENT WITH RENEWAL APPLICATION
ATTACHMENT 8-SOLIDS MANAGEMENT PLANS
TPDES PERMIT NO. WQ0010131-001

SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN- INTERIM II PHASE (0.48 MGD, 1,200 LBS BOD_5/DAY)

Dimensions and capacities of aerobic digester

TCEQ design volume	20 cubic feet/lb BOD5/day
TCEQ minimum sludge retention time	15 days
Digester volume	24,020 cubic feet (17.3 cubic feet/lb BOD_5/day)
Digester dimensions	1 unit @ 38 feet X 15 feet X 9.5 feet deep & 1 unit @ 40 feet X 16.25 feet X 9.5 feet deep & 2 units @ 28 feet diameter X 10 feet deep
Digester sludge retention time	22 days

BOD5 removal Influent concentration = 300 mg/1
Effluent concentration = 20 mg/1 Net removal = 280 mg/1

Solids generated	100% flow	75% flow	50% flow	25% flow
Pounds BOD5/day removed	1,121	840	560	280
Pounds of dry sludge produced*	353	265	177	90
Pounds of wet sludge produced**	27,160	20,370	13,580	6,790
Volume of wet sludge produced	3,260 gal	2,445 gal	1,630 gal	815 gal

* Assuming 0.315 pounds of dry sludge produced per pound of BOD5 removed.
** Assuming 1.3% solids

MLSS operating range = 5,440 mg/1 (see page 3 design calculations)

Sludge will stay in the digester, clear liquor will be decanted off the digester and returned to the headworks. Sludge is wasted from the final clarifiers to the aerobic digester. Some sludge from the clarifier is also returned to the aeration basins.

Removal schedule (days)	100%flow	75% flow	50% flow	25% flow
Days between sludge removal	55	83	110	220

Sludge will be removed from the digester when the digester is full of thickened solids. Digested sludge will be treated with polymer and pumped to the dewatering box in the existing phase and to the proposed rotary or screw press in the final phase. Then sludge will be hauled by a registered transporter to the designated landfill for disposal.

CITY OF BOYD
WWTP PERMIT AMENDMENT WITH RENEWAL APPLICATION
ATTACHMENT 8-SOLIDS MANAGEMENT PLANS
TPDES PERMIT NO. WQ0010131-001

SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN-FINAL PHASE (0.99 MGD, 2,477 LBS BOD_5/DAY)

Dimensions and capacities of aerobic digester

TCEQ design volume	20 cubic feet/lb BOD5/day
TCEQ minimum sludge retention time	15 days
Digester volume	49,932 cubic feet (20 cubic feet/lb BOD_5/day)
Digester dimensions	1 unit @ 38 feet X 15 feet X 9.5 feet deep & 1 unit @ 40 feet X 16.25 feet X 9.5 feet deep & 2 units @ 28 feet diameter X 10 feet deep & 4 units @ 24.7 feet X 17.5 feet X 15 feet deep
Digester sludge retention time	56 days

BOD5 removal — Influent concentration = 300 mg/1
Effluent concentration = 20 mg/1
Net removal = 280 mg/1

Solids generated	100% flow	75% flow	50% flow	25% flow
Pounds BOD5/day removed	2,312	1,734	1,156	578
Pounds of dry sludge produced*	728	546	366	182
Pounds of wet sludge produced**	56,018	42,014	28,010	14,005
Volume of wet sludge produced	6,717 gal	5,038 gal	3,360 gal	1,680 gal

* Assuming 0.315 pounds of dry sludge produced per pound of BOD5 removed.
** Assuming 1.3% solids

MLSS operating range = 5,440 mg/1 (see page 3 design calculations)

Sludge will stay in the digester, clear liquor will be decanted off the digester and returned to the headworks. Sludge is wasted from the final clarifiers to the aerobic digester. Some sludge from the clarifier is also returned to the aeration basins.

Removal schedule (days)	100%flow	75% flow	50% flow	25% flow
Days between sludge removal	56	75	112	224

Sludge will be removed from the digester when the digester is full of thickened solids. Digested sludge will be treated with polymer and pumped to the dewatering box in the existing phase and to the proposed rotary or screw press in the final phase. Then sludge will be hauled by a registered transporter to the designated landfill for disposal.

Attachment 9.
Wind Rose

CITY OF BOYD

WWTP PERMIT AMENDMENT WITH RENEWAL APPLICATION

ATTACHMENT 9. WIND ROSE

TPDES PERMIT NO. WQ0010131-001