TPDES Permit New Application Submittal

Submitted to:

Texas Commission on Environmental Quality Application Review & Processing Team (MC-148) P.O. Box 13087 Austin, Texas 78711-3087

For:

Studio Estates WWTP 1075 Rohde Road Kyle, TX 78640

Owner:

Studio Estates, LLC 7212 Goforth Road Suite 201 Kyle, TX 78640

Issue Date: September 21, 2020



consulting environmental engineers, inc.

150 n. harbin drive – suite 408 • stephenville, tx 76401 phone: (254) 968-8130 fax: (254) 968-8134 email: ceeinc@ceeinc.org registered firm: #F-2323

Studio Estates Exhibit Cross Reference

Exhibit I.D.	Description	<u>Reference</u>
I	Core Data Form 10400	Section 3 (C) page 4 of 21
II	Topographic Map	Item 13, page 11 of 20
III	Affected Landowners Map	Item 1 (a), page 13 of 20
IV	Affected Landowners Cross Reference	Item 1 (b), page 13 of 20
V	Affected Landowners Disk	Item 1 (c), page 13 of 20
VI VI(a)	Photographs Photograph Location map	Item 2, page 14 of 20
VII	Buffer Zone Map	Item 3 (a), page 14 of 20
VIII	SPIF Topographic Map	Item 5, page 16 of 20
IX	Flow Diagram	Item 2 (c), page 2 of 79
Х	Site Drawing	Item 3, page 3 of 79
XI	Close Proximity WWTP Data	Item 3, page 22 of 79
XII	Design Calculations	Item 4, page 24 of 79
XIII	Flood Plain Map	Item 5 (a), page 25 of 79
XIV	Wind Rose	Item 5 (b), page 25 of 79
XV	Sewage Sludge Solids Management	Item 7, page 26 of 79
XVI	Copy of Check	

Studio Estates Core Data Form 10400



TCEQ Core Data Form

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

SECTION I: General Information

2201101												
	r Submission (If other is a					,						
🛛 New Per	mit, Registration or Author	ization (Core Da	ata Form	n should be	submit	tted wi	ith the pro	ogram a	applicatior	ı.)		
Renewal	Renewal (Core Data Form should be submitted with the renewal form)					Other						
2. Customer	stomer Reference Number (if issued) Follow this link to search					3. Regulated Entity Reference Number (if issued)						
CN 6029	78512			<u>or RN numb</u> Itral Registry		R	N					
SECTION II: Customer Information												
4. General Cu	stomer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy) 9/10/2				0/20)20					
New Custo	omer Legal Name (Verifiable wit			Customer			roller of F		•	Regulated	Entit	y Ownership
	ner Name submitted								,	rent and	l act	ive with the
	retary of State (SOS)	•	•			•						
6. Customer	Legal Name (If an individua	l, print last name i	first: eg: l	Doe, John)			If new Cu	stomer	, enter pre	vious Custo	omer	below:
Studio Est			-	,								
	Studio Estates, LLC 7. TX SOS/CPA Filing Number 8. TX State Tax ID (11 digits) 9. Federal Tax ID (9 digits) 10. DUNS Number (# a					Number (if applicable)						
080037257	-	6. TX State Tax ID (11 digits) 15624742720										
							D-					
11. Type of C				Indivi						eral 🗌 Limit	ed	
	City County Federal	State 🗌 Other			Proprie			Other				10
12. Number o	21-100 101-250	251-500	50	1 and high	er		13. Indep	enaer		ed and Op	erate	Q ?
14. Customer	Role (Proposed or Actual) -	- as it relates to th	ne Regula	ated Entity li	sted on	this for	m. Please	check	one of the i	following		
Owner		tor		Owner &	Opera	tor				-		
Occupational Licensee Responsible Party Voluntary Cleanup Applicant Other:												
	7212 Goforth Road	ł										
15. Mailing Address:	Suite 201											
Aur 000.	City Kyle		Sta	ate ΤΣ	ζ.	ZIP	786	40		ZIP + 4	1	4270
16. Country M	Mailing Information (if outs	ide USA)			17.	7. E-Mail Address (if applicable)						
					dav	vid@studioestates.biz						
18. Telephon	e Number		19. Ext	ension or	Code	20. Fax Number (if applicable))		
(512)59	0-4513							()	-		
<u> </u>								I				

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)

 New Regulated Entity
 Update to Regulated Entity Name

 Update to Regulated Entity
 Update to Regulated Entity Name

The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency 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.)

Studio Estates WWTP

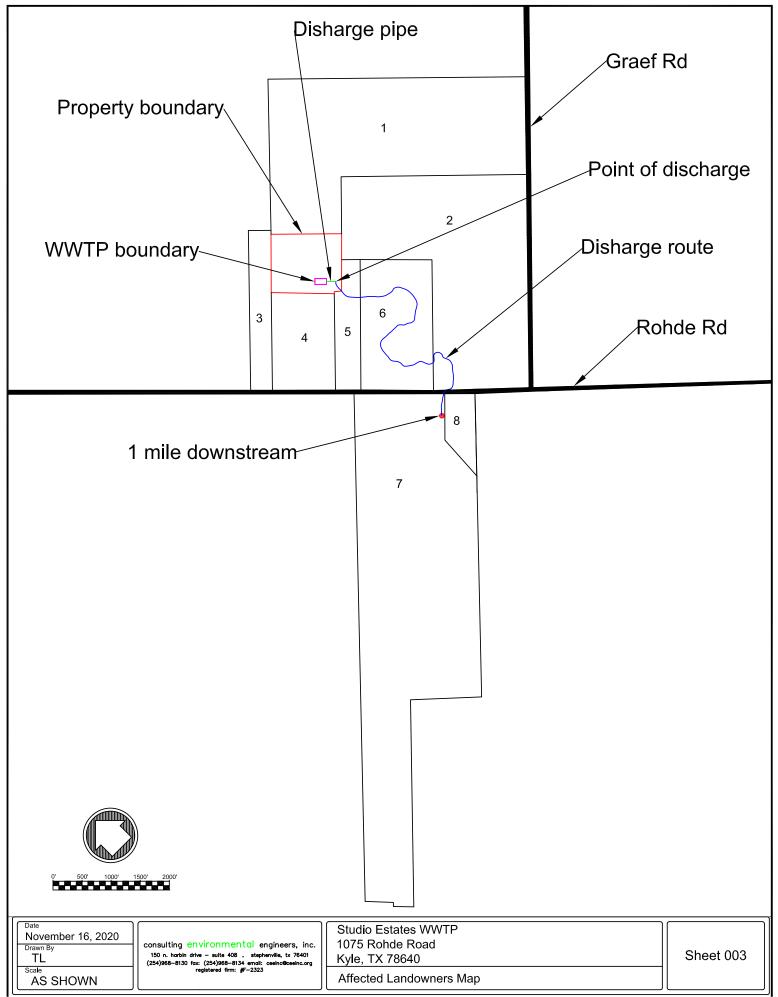
23. Street Address of									
the Regulated Entity: (No PO Boxes)						1			
	City			State		ZIP		ZIP + 4	
24. County	Hays	5							
		Ent	er Physica	Location Descrip	tion if no str	eet addres	s is provided.		
5. Description to hysical Location:	Appro Gofor			miles southeas	st of the in	ntersectio	on of Niederv	vald Strasse	Road and
6. Nearest City							State	Near	rest ZIP Code
Niederwald							ΤХ	786	40
7. Latitude (N) In Deci	mal:	30	0.02111		28. Lo	ongitude (V	V) In Decimal:	-97.76972	
egrees	Minutes			Seconds	Degree	s	Minutes		Seconds
30		01		16		-97		46	11
29. Primary SIC Code	(4 digits)	30. Se	condary S	C Code (4 digits)	31. Prima (5 or 6 digit	ry NAICS (Secondary NA 6 digits)	ICS Code
1521					236115				
33. What is the Primar	y Busines	s of thi	is entity?	(Do not repeat the SIC	or NAICS descr	iption.)			
To provide waste	water to	busin	ess, resta	aurants, wareho	ouses, and	grocery	/retail stores.		
24 Mailing					7212 (Goforth Ro	ad		
34. Mailing Address:					S	uite 201			
Address.	Cit	y	Kyle	State	ТХ	ZIP	78640	ZIP + 4	4270
35. E-Mail Addres	ss:	1						I	
36. Telej	hone Nun	nber		37. Extensi	on or Code		38. Fax M	umber (if appl	icable)
(512) 590-4513	3				() -			
9. TCEQ Programs an rrm. See the Core Data Fo	d ID Numb	Ders Che ons for a	eck all Progra	ams and write in the po dance.	ermits/registra	tion numbers	that will be affecte	d by the updates	submitted on this
] Dam Safety	Dis	stricts		Edwards Aqu	uifer	Emiss	ions Inventory Air	🗌 Industria	I Hazardous Wast
Municipal Solid Waste	Ne Ne	ew Sourc	ce Review Ai			Petrol	eum Storage Tank	D PWS	
Sludge	Sto	orm Wat	er	Title V Air		Tires		Used Oil	
Voluntary Cleanup	🖂 Wa	aste Wat	ter	Wastewater	Agriculture	U Water	Rights	Other:	
	New	Permit	t						
ECTION IV: P	repare	r Infe	ormatio	n					
D. ame: Charles P.					41. Title:	Pres	ident		
2. Telephone Number	43. Ext./	Code	44. F	ax Number	45. E-M	ail Addres	6		
254)968-8130				4)968-8134		aceein			

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:	Consulting Environmental Engineers, Inc.	Job Title:	President	ident			
Name (In Print):	Charles P. Gillespie				(254) 968- 8130		
Signature:	Chil Pi Aller			Date:	12-11-20		

Studio Estates Topographic Map Studio Estates Affected Landowners Map



Studio Estates Affected Landowners Cross Reference

Studio Estates, LLC Wastewater Permit Application Affected Landowners Cross Reference Exhibit IV

- 1. Rudolph & Laura Braune 100 Graef Rd. Kyle, TX 78640
- 2. Triple Ewald Farms, LLC 1601 Rohde Rd. Niederwald, TX 78640
- 3. Stephen L Hopkins Sr. Rohde Rd. Niederwald, TX 78640
- 4. Studio Estates, LLC 1075 Rohde Rd. Kyle, TX 78640
- 5. John T. McCormick Rohde Rd. Kyle, TX 78640
- 6. Rodney & Dianne Dupree & Beverly Elliot 1501 Rohde Rd. Niederwald, TX 78640
- 7. Maxwell Settlement Trust 1500 Rohde Rd. Kyle, TX 78640
- 8. John T. McCormick 1618 Rohde Rd. Kyle, TX 78640

Studio Estates Affected Landowners Disk



Studio Estates Photographs

WWTP Site Location

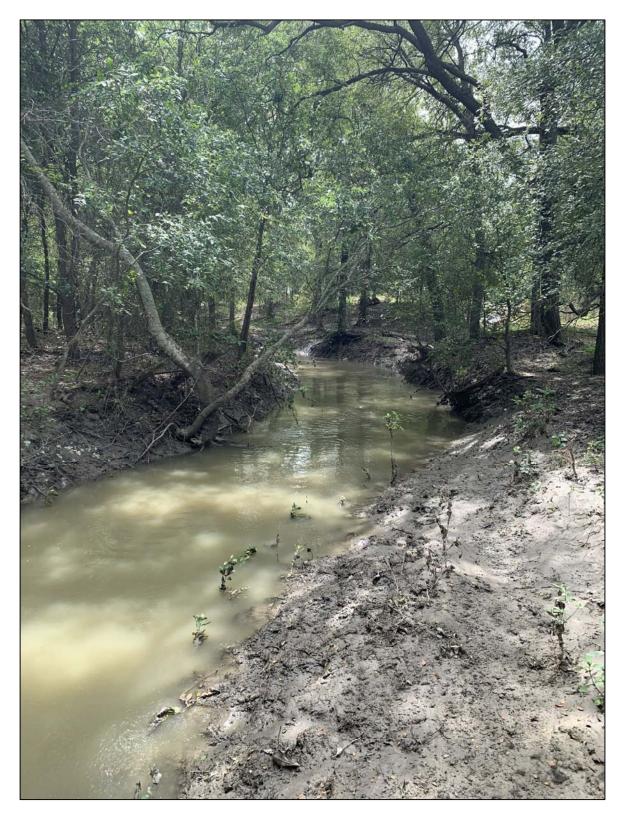
e TS eptember 18, 2020 consulting environmental engineers, inc. 150 n. harbin drive - suite 408 . stephenville, tx 76401 (254)968-8130 fac: (254)968-8134 email: ceeinc@ceeinc.org registered firm: #F-2323	Studio Estates WWTP 721 Rohde Road Kyle, TX 78640 WWTP Site Location Photo	Sheet 004 00014

Upstream

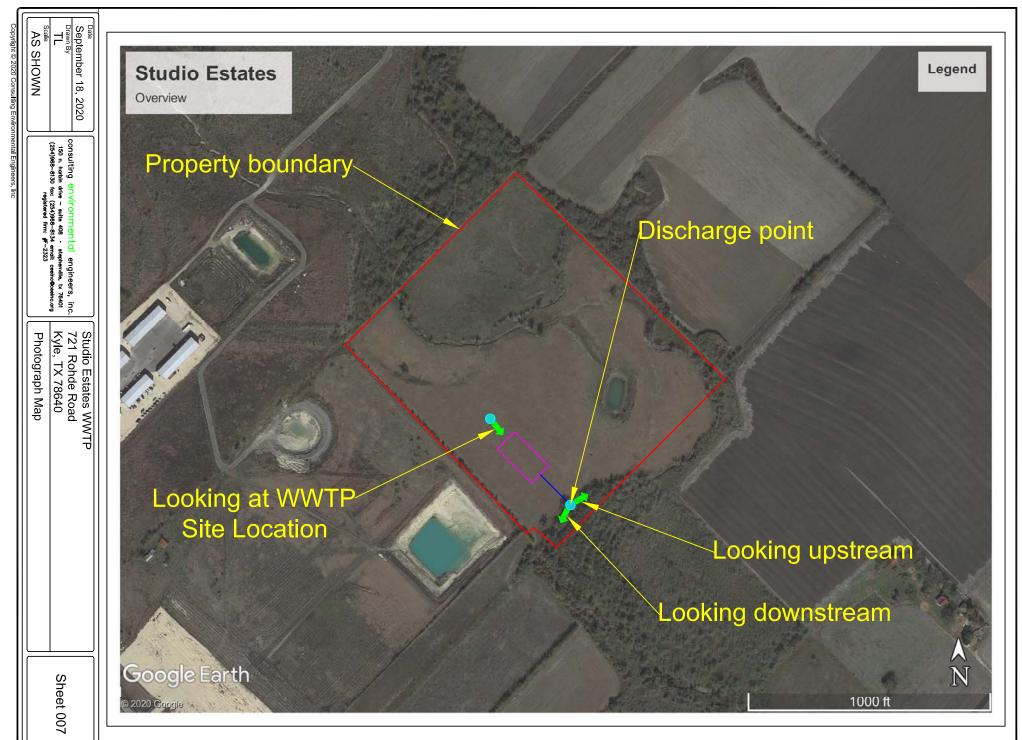


Drawn By TL consulting environmental engineers, inc. 150 n. harbin drive - suite 408 stephenville, tx 76401 (254)9688-8130 fox: (254)968-8134 email: cceinc@cceinc.org NTS 721 Rohde Road Kyle, TX 78640 Sheet 005 Upstream and Downstream Photos

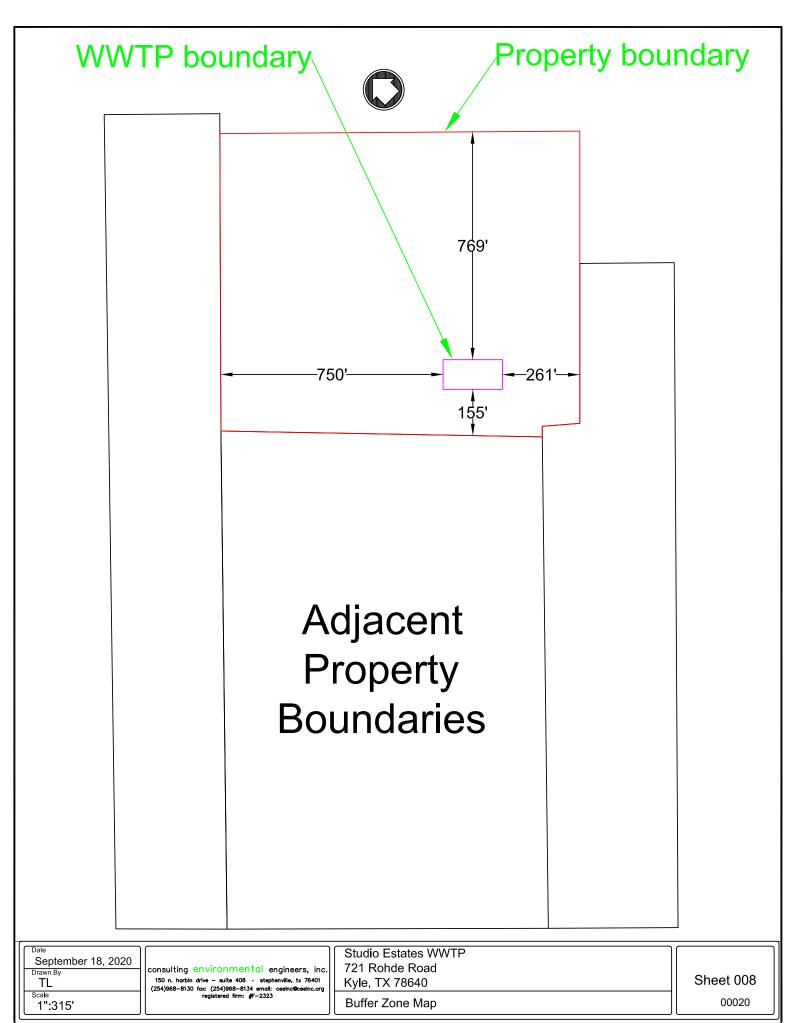
Downstream



Studio Estates Photograph Location Map

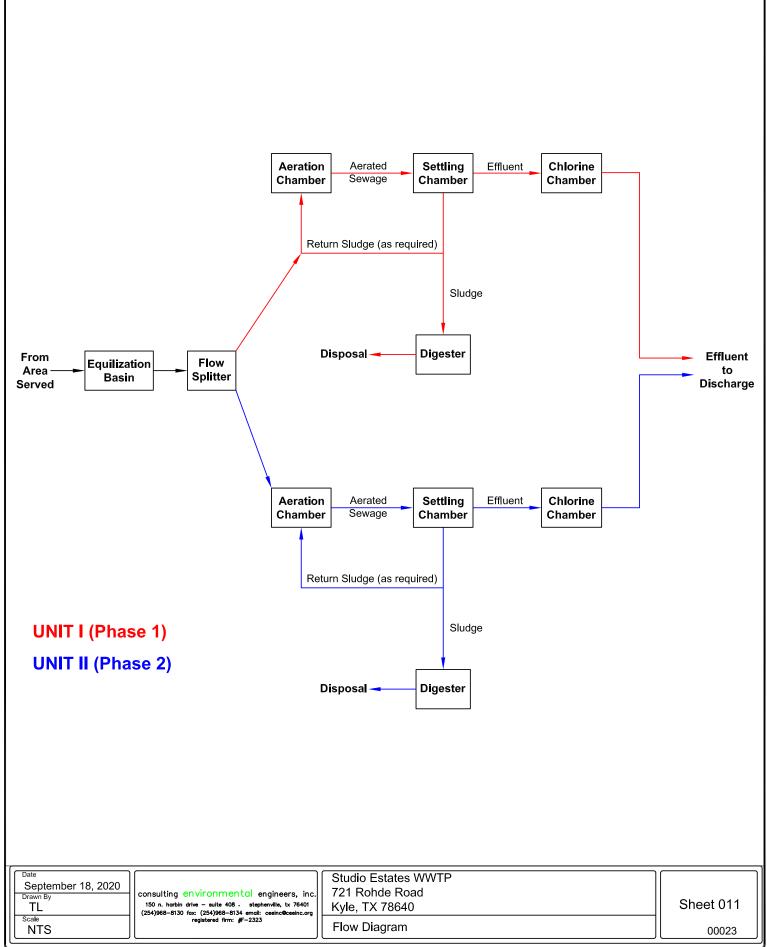


Studio Estates Buffer Zone Map

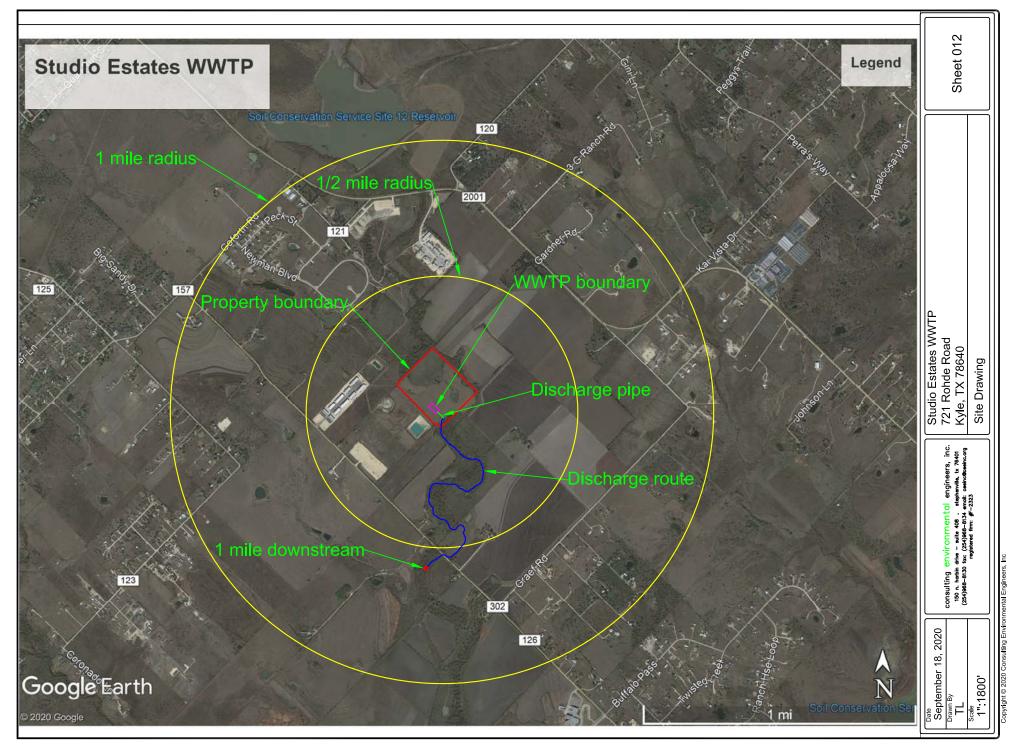


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Studio Estates SPIF Topographic Map Studio Estates Flow Diagram



Studio Estates Site Drawing



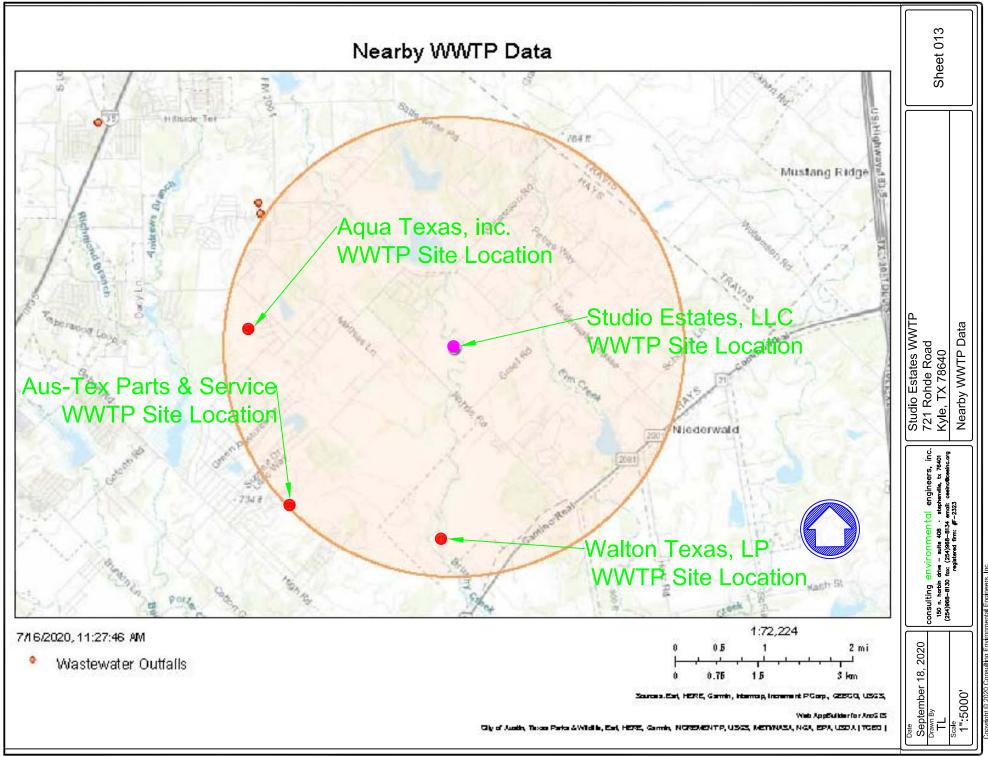
Studio Estates Close Proximity WWTP Data consulting environmental engineers, inc.



150 n. harbin drive – suite 408 • stephenville, tx 76401 phone: (254) 968-8130 email: <u>ceeinc@ceeinc.org</u> registered firm: #F-2323

LIST OF WASTEWATER UTILITIES WITHIN 3 MILES OF THE PROPOSED SERVICE AREA BOUNDARY

- 1. Aqua Texas, Inc.
 - a. WWTP name = Goforth WWTP
 - b. Physical address = 5271 Goforth Road, Kyle, TX 78640
 - c. Mailing address = 1106 Clayton Lane Suite 400W, Austin TX 78723
- 2. Aus-Tex Parts & Service Ltd.
 - a. WWTP name = Railyard WWTP
 - Physical address = 2.6 miles NW of the intersection of State Hwy 21 and County Road 127 in Hays County, Texas
 - c. Mailing address = PO Box 17547, Austin, TX 78760
- 3. Walton Texas, LP.
 - a. WWTP name = Camino Real WWTP
 - Physical address = 1.4 miles SW of the intersection of Rohde Rd and State Hwy 21 in Hays County, Texas.
 - c. Mailing Address = 14614 N Kierland Blvd Suite 120, Scottsdale, AZ 85254





consulting environmental engineers, inc.

150 n. harbin drive – suite 408 ● stephenville, tx 76401 phone: (254) 968-8130 fax: (254) 968-8134 email: ceeinc@ceeinc.org registered firm: #F-2323

July 16, 2020

Aqua Texas, Inc. 1106 Clayton Lane Suite 400W Austin, TX 78723

To Whom It May Concern,

Studio Estates, LLC is applying to obtain approval from the Texas Commission on Environmental Quality (TCEQ) to install and operate a Wastewater Treatment System to service a proposed development located in Kyle, TX. The approximate 200acre property is located at 1075 Rohde Rd, Kyle, Hays County, Texas. The client plans to provide public wastewater service to serve only the proposed development.

Furthermore, based on current information provided by the Texas Commission on Environmental Quality (TCEQ) it appears that Aqua Texas, Inc. has a collection system within the three-mile radius of the proposed wastewater treatment facility. TCEQ requires that a formal request for service be made to any public sewer supply system that is within that radius. Studio Estates, LLC will not be applying for a CCN and will not be selling wastewater service to the public; the proposed wastewater system will be strictly utilized to service the proposed development. I have attached a site map that depicts the proposed location and the proximity to your current location.

We would appreciate your indicating Aqua Texas, Inc. response to this request on the bottom of this letter and returning it via email to <u>ceeinc@ceeinc.org</u> or via mail to Consulting Environmental Engineers Inc., 150 N. Harbin Drive, Suite 408, Stephenville, Texas 76401 at your earliest convenience.

Sincerely. Charles P. Allerin III

Charles P. Gillespie III President

Attachment: Site Location Map

Aqua Texas, Inc.: Please check one (\checkmark)

does wish to provide wastewater service to Studio Estates, LLC and does not consent to Studio Estates, LLC providing wastewater service to only this location.

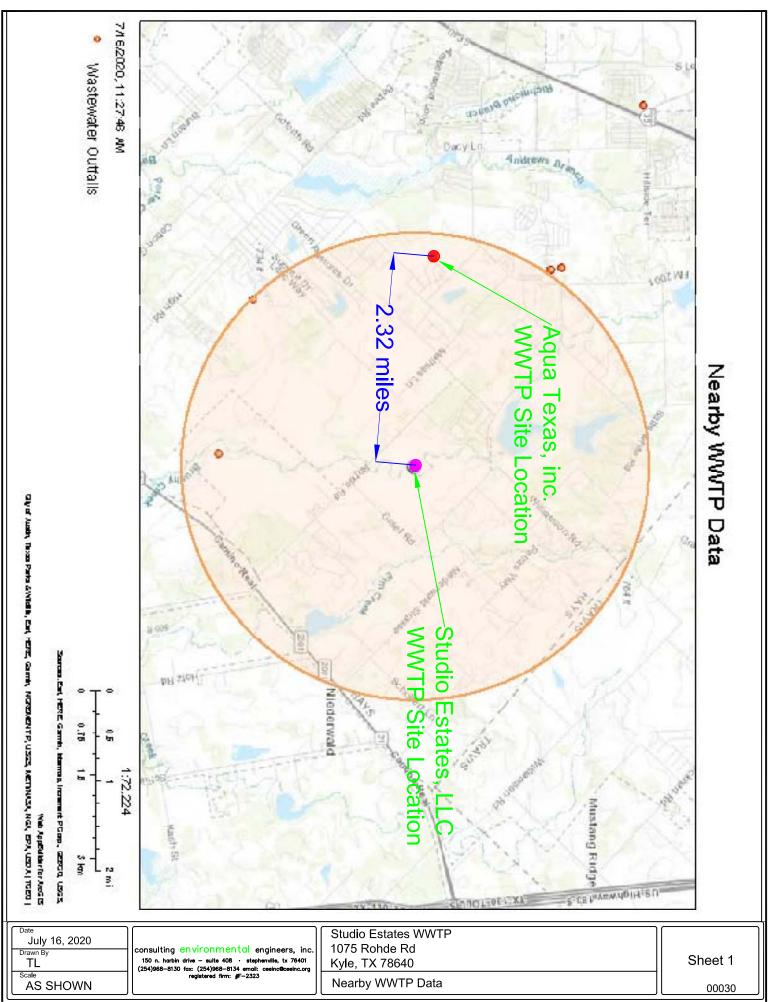
does not wish to provide service to Studio Estates, LLC and we consent to Studio Estates, LLC providing wastewater service to only this location.

Comments:

Signed by:_____

Signed for: Aqua Texas, Inc.

Date:_____



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Studio Estates WUTP Kequest for Denice

Signature Confirmation TM : 9410 8036 9930 0124 1607 12 Trans. #: 500124241 Print Date: 07/17/2020 Signature Confirmation: \$2.55 Signature Confirmation: \$2.55 Signature Confirmation: \$2.55 Clectronic Rate) From: CHARLES P GILLESPIE CONSULTING ENVIRONMENTAL ENGINEERS, INC. 150 N HARBIN DR STEPHENVILLE TX 76401-2800 To: AQUA TEXAS, INC. 1106 CLAYTON LN STE 400W AUSTIN TX 78723-2476 * Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service unused postage paid labels can be recursed route as hipping label. Retunds for
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auto-reply@usps.com <auto-reply@usps.com>

Mon 7/20/2020 5:00 PM

To: Consulting Environmental Engineers, Inc. <ceeinc@ceeinc.org>

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consulting environmental engineers, inc.

150 n. harbin drive – suite 408 ● stephenville, tx 76401 phone: (254) 968-8130 fax: (254) 968-8134 email: ceeinc@ceeinc.org registered firm: #F-2323

July 16, 2020

Aus-Tex Parts & Services, Ltd. PO Box 17547 Austin, TX 78760

To Whom It May Concern,

Studio Estates, LLC is applying to obtain approval from the Texas Commission on Environmental Quality (TCEQ) to install and operate a Wastewater Treatment System to service a proposed development located in Kyle, TX. The approximate 200acre property is located at 1075 Rohde Rd, Kyle, Hays County, Texas. The client plans to provide public wastewater service to serve only the proposed development.

Furthermore, based on current information provided by the Texas Commission on Environmental Quality (TCEQ) it appears that Aus-Tex Parts & Services, Ltd. has a collection system within the three-mile radius of the proposed wastewater treatment facility. TCEQ requires that a formal request for service be made to any public sewer supply system that is within that radius. Studio Estates, LLC will not be applying for a CCN and will not be selling wastewater service to the public; the proposed wastewater system will be strictly utilized to service the proposed development. I have attached a site map that depicts the proposed location and the proximity to your current location.

We would appreciate your indicating Aus-Tex Parts & Services, Ltd. response to this request on the bottom of this letter and returning it via email to <u>ceeinc@ceeinc.org</u> or via mail to Consulting Environmental Engineers Inc., 150 N. Harbin Drive, Suite 408, Stephenville, Texas 76401 at your earliest convenience.

Sincerely, Charles P. Silleyin III

Charles P. Gillespie III President

Attachment: Site Location Map

Aus-Tex Parts & Services, Ltd.: Please check one (✓)

does wish to provide wastewater service to Studio Estates, LLC and does not consent to Studio Estates, LLC providing wastewater service to only this location.

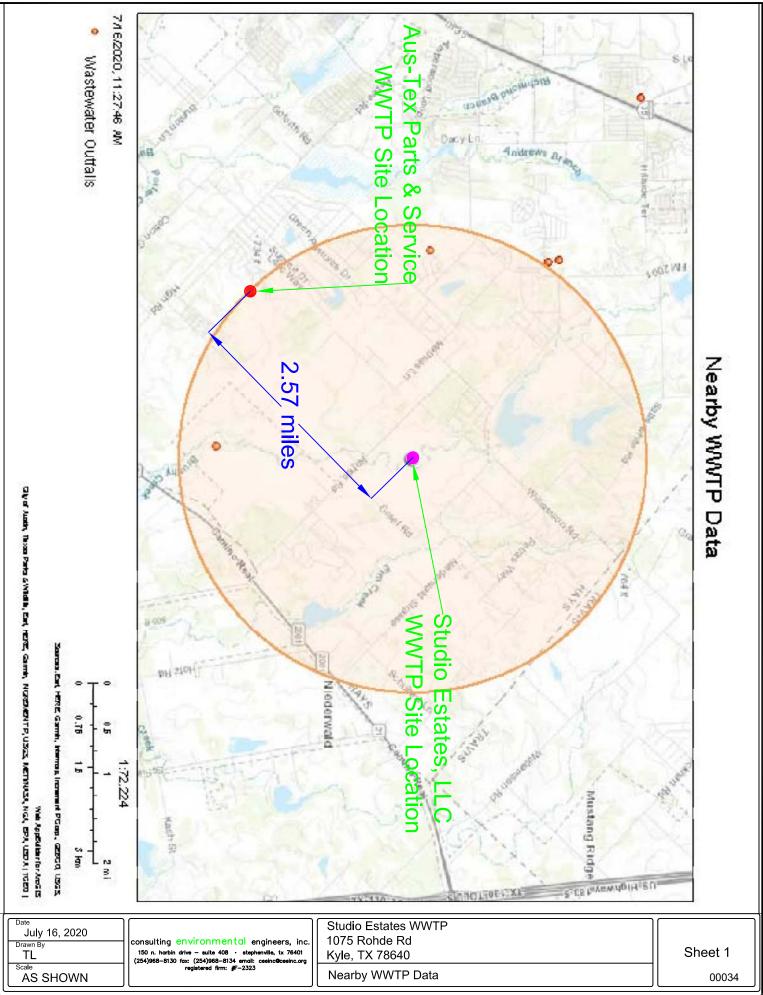
does not wish to provide service to Studio Estates, LLC and we consent to Studio Estates, LLC providing wastewater service to only this location.

Comments: _____

Signed by:

Signed for: Aus-Tex Parts & Services, Ltd.

Date:_____



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Studio Estates WUTP Request for Service

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Del' 20 9:53 AM 7-21-20

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Signed for by C ORTIZ

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auto-reply@usps.com <auto-reply@usps.com> Tue 7/21/2020 10:06 AM

To: Consulting Environmental Engineers, Inc. <ceeinc@ceeinc.org>



Hello CHARLES P GILLESPIE,

Your item was delivered at 9:53 am on July 21, 2020 in AUSTIN, TX 78760. The item was signed for C ORTIZ.

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consulting environmental engineers, inc.

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July 16, 2020

Walton Texas, LP 14614 N Kierland Blvd Suite 120 Scottsdale, AZ 85254

To Whom It May Concern,

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Furthermore, based on current information provided by the Texas Commission on Environmental Quality (TCEQ) it appears that Walton Texas, LP has a collection system within the three-mile radius of the proposed wastewater treatment facility. TCEQ requires that a formal request for service be made to any public sewer supply system that is within that radius. Studio Estates, LLC will not be applying for a CCN and will not be selling wastewater service to the public; the proposed wastewater system will be strictly utilized to service the proposed development. I have attached a site map that depicts the proposed location and the proximity to your current location.

We would appreciate your indicating Walton Texas, LP response to this request on the bottom of this letter and returning it via email to <u>ceeinc@ceeinc.org</u> or via mail to Consulting Environmental Engineers Inc., 150 N. Harbin Drive, Suite 408, Stephenville, Texas 76401 at your earliest convenience.

Sincerely. Charles P. Allerin III

Charles P. Gillespie III President

Attachment: Site Location Map

Walton Texas, LP: Please check one (\checkmark)

does wish to provide wastewater service to Studio Estates, LLC and does not consent to Studio Estates, LLC providing wastewater service to only this location.

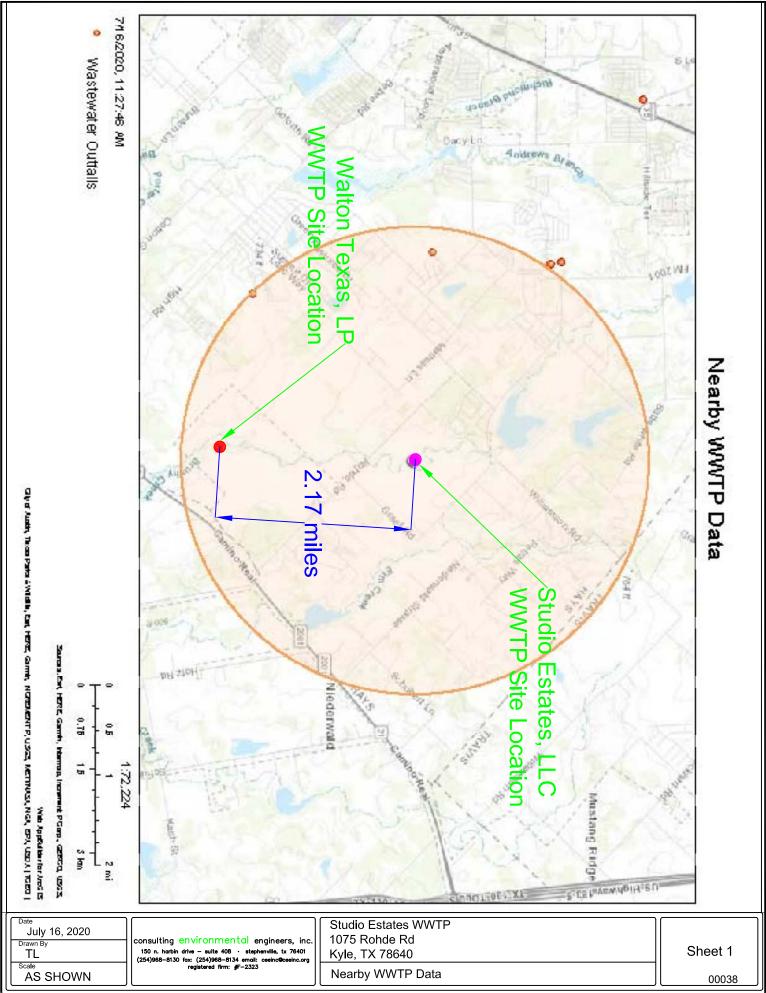
does not wish to provide service to Studio Estates, LLC and we consent to Studio Estates, LLC providing wastewater service to only this location.

Comments: ____

Signed by:_____

Signed for: Walton Texas, LP

Date:_____



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9 BLVD 1254-2743	CHARLES P GILLESPIE CONSULTING ENVIRONMENTAL ENGINEERS, INC 150 N HARBIN DR STE 408 STEPHENVILLE TX 76401-2800	Signature Confirmation TM : 9410 8036 9930 0124 1607 36 500124241 07/17/2020 07/17/2020 te: 07/20/2020 Total:
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Studio Estates WWTH Request for Service

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To: Consulting Environmental Engineers, Inc. <ceeinc@ceeinc.org>

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Studio Estates Design Calculations

Studio Estates WWTP - Extended Aeration Design Spreadsheet (Phase I)

		INPUT		
	ADF (average daily flow) =	75,000	gallons / / da	y
В	<i>OD</i> (biochemical oxygen demand) =	364	$\frac{mg}{l}$	
		Ουτρυτ		
Ι	Daily Average Organic Load			
	<u>lbs</u> <u>BOD</u> ADF X 8.33 gallon X 1,000,000 lbs.		227	lbs/ /day
11	Peak Flow Organic Load			
	<u> </u>		910	lbs/ day
<i>III</i>	Minimum Clarifier Detention Diam	eter		
	<u>(4)(ADF)(2.2 detention time)</u> √(24hrs)(7.48 gal)(11 ft)(.785)	20.63	ft. dia.	
IV	Peak Flow Clarifier Design Diamet	ter		
	<u>(4)(ADF)</u> √(.785)(900)	20.61	^{ft} Diameter	

V **Digester Volume**

 $\frac{20 \text{ ft}^3}{lb/day} \times \text{ daily average organic load (above Item I)} = 4,548 \text{ ft}^3$ Digester L **Digester Length** 42.56 ft

VI **Chlorine Tank Volume**

> 4 x ADF (7.48 gallons)(1440 minutes) X 20 minutes

557 ft^3 **Chlorine Chamber Length** 7.99427 ft

VII **Aeration Basin Sizing**

daily average organic load (above Item I) $\times \frac{day}{15 \ lbs} \times 1,000 \ ft^3 =$ **15,161** ft^3 **Basin Length** 141.85357 ft

Air Supply For Aeration VIII

daily average organic load (above Item1) X

Air Supply For Digestion IX

digester volume (above Item VII) X 1,000 $\frac{ft^3}{min}{ft^3}$

Total Air Required Χ

air supply for aeration (above itemVIII)		
+ air supply for digestion (above item IX)		c.3 /
+ 40 ft ³ /min (air lifts)	636	$\int ft^3 / m$ in

91 ft^3/min

 $\underline{2.22} \quad ft^3 / min$ Ib BOD

505 ft^{3} m in

(Minimum=3')

Studio Estates WWTP - Extended Aeration Design Spreadsheet (Phase II)

		INPUT		
	ADF (average daily flow) =	75,000	gallons/ / day	y
В	<i>OD</i> (biochemical oxygen demand) =	364	mg / /l	
		OUTPUT		
1	Daily Average Organic Load			
	<u>lbs</u> <u>BOD</u> ADF X 8.33 gallon X 1,000,000 lbs.		227	lbs/ /day
"	Peak Flow Organic Load			
	<u> </u>		910	lbs/ day
	Minimum Clarifier Detention Diam	eter		
	<u>(4)(ADF)(2.2 detention time)</u> √(24hrs)(7.48 gal)(11 ft)(.785)	20.63	ft. dia.	
IV	Peak Flow Clarifier Design Diamet	er		
	<u>(4)(ADF)</u> √(.785)(900)	20.61	^{ft} Diameter	

V **Digester Volume**

 $\frac{20 \text{ ft}^3}{lb/day} \times \text{ daily average organic load (above Item I)} = 4,548 \text{ ft}^3$ Digester L **Digester Length** 42.56 ft

VI **Chlorine Tank Volume**

> 4 x ADF (7.48 gallons)(1440 minutes) X 20 minutes

557 ft^3 **Chlorine Chamber Length** 7.99427 ft

(Minimum=3')

VII **Aeration Basin Sizing**

daily average organic load (above Item I) $\times \frac{day}{15 \ lbs} \times 1,000 \ ft^3 =$ **15,161** ft^3 **Basin Length** 141.85357 ft

Air Supply For Aeration VIII

 $\underline{2.22} \quad ft^{3} / min$ daily average organic load (above Item1) X Ib BOD

Air Supply For Digestion IX

digester volume (above Item VII) X 1,000 $\frac{ft^3}{min}{ft^3}$

Total Air Required Χ

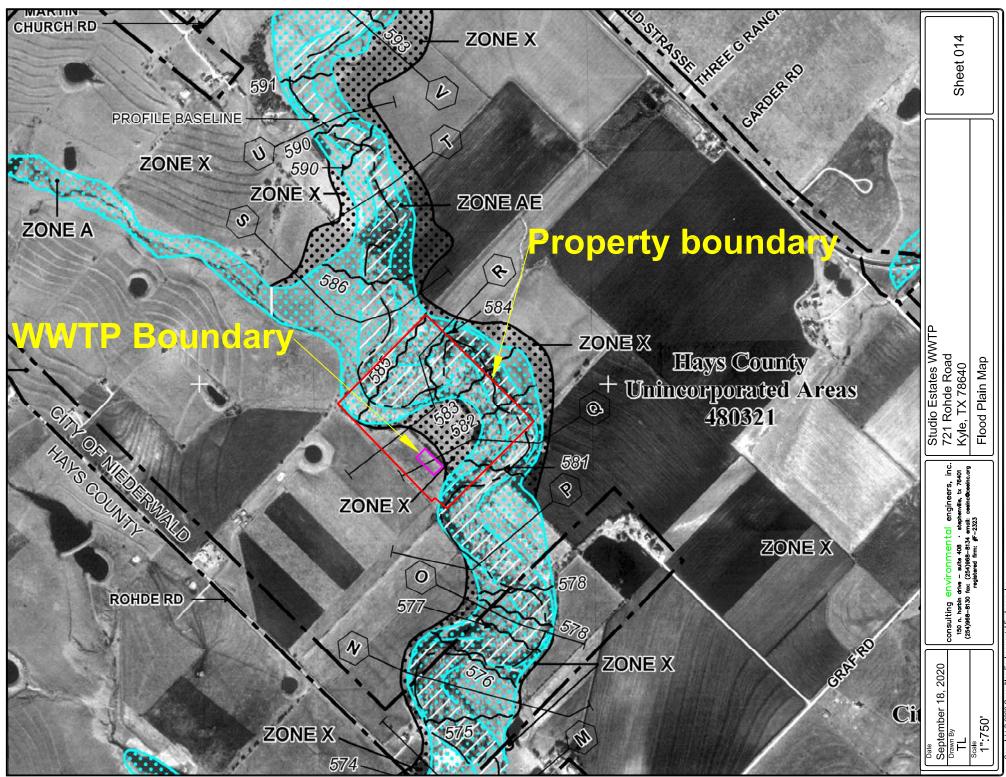
air supply for aeration (above itemVIII)		
+ air supply for digestion (above item IX)		c.3 /
+ 40 ft ³ /min (air lifts)	636	ft^3 m in

505 ft^{3} m in

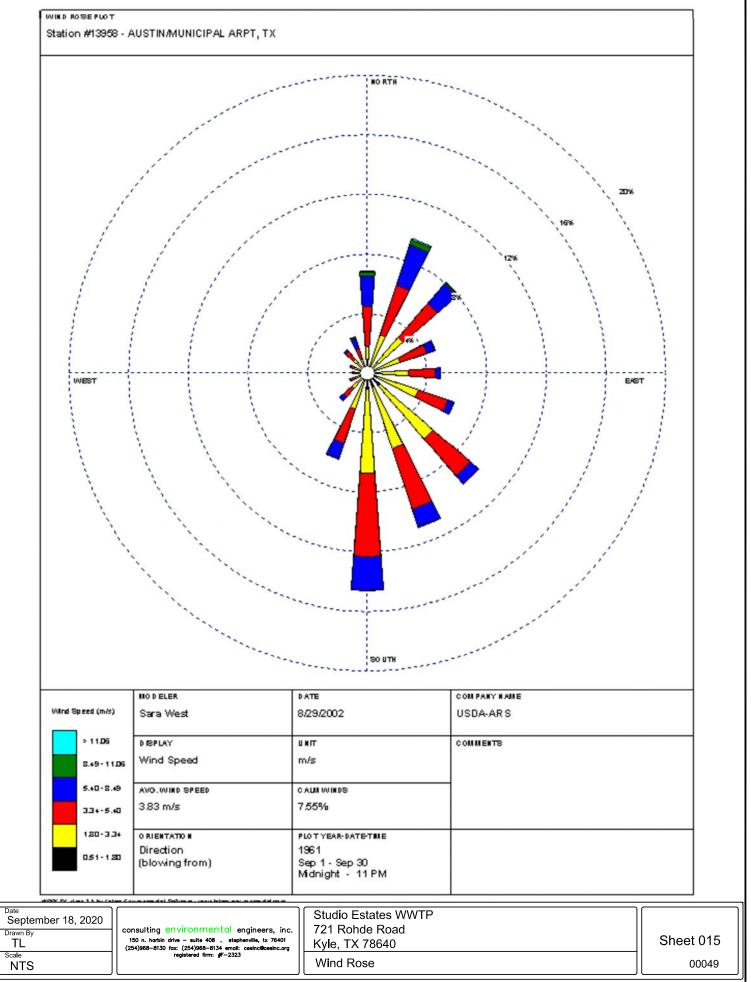
91 ft^3/min

2

Studio Estates Flood Plain Map



Studio Estates Wind Rose



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Studio Estates Sewage Sludge Solids Management



consulting environmental engineers, inc.

150 n. harbin drive – suite 408 ● stephenville, tx 76401 phone: (254) 968-8130 fax: (254) 968-8134 email: ceeinc@ceeinc.org registered firm: #F-2323

Sludge Management Calculation Sheet (Phase I)

Permittee	1 <u></u>	Studio Estates WWT	- -		
Influent BOD	2_	<u>364 </u> mg/l			
Effluent BOD	3_	20 mg/l			
Average Daily Flow	4_	75000 gallon/day			
Influent TSS	5_	20 mg/l			
Average Daily Organic Load	6	227.00 lbs/day			
Required Digester Volume	7	4540 cubic feet			
BOD Removal	8	215.17 lbs/day			
Solids Generated		100%	75%	50%	25%
BOD Removed	9	215.17	161.38	107.59	53.79
BOD Removed Non-Volatile TSS	9 10	215.17 12.50	161.38 9.37	107.59 6.25	53.79 3.12
Non-Volatile TSS	10	12.50	9.37	6.25	3.12
Non-Volatile TSS Solids Produced (lbs)	10 11	12.50 107.59	9.37 80.69	6.25 53.79	3.12 26.90

Sludge will be wasted from the RAS flow stream to the aerobic digester. Sludge solids will be stabilized in the digester; supernatant will be decanted from the digester and returned to the facility headworks for treatment.

Liquid digested sludge will be removed from the digester for disposal on a regular basis as required. The calculated mean cell residence time for the digester storage volume of 20,000 gallons will be approximately 20 days at 100% capacity. Generated waste will be hauled by an approved transporter to a permitted site.

Studio Estates WWTP



<u>consulting environmental engineers, inc.</u>

150 n. harbin drive – suite 408 ● stephenville, tx 76401 phone: (254) 968-8130 fax: (254) 968-8134 email: ceeinc@ceeinc.org registered firm: #F-2323

Sludge Management Calculation Sheet (Phase II)

Permittee	1 <u>:</u>	Studio Estates WWT	<u>P</u>		
Influent BOD	2_	<u>364</u> mg/l			
Effluent BOD	3_	<u>20 </u> mg/l			
Average Daily Flow	4_	75000 gallon/day	1		
Influent TSS	5_	<u>20 </u> mg/l			
Average Daily Organic Load	6	227.00 lbs/day			
Required Digester Volume	7	4540 cubic feet			
BOD Removal	8	215.17 lbs/day			
Solids Generated		100%	75%	50%	25%
Solids Generated		100%	75%	50%	25%
Solids Generated BOD Removed	9	100% 215.17	75% 161.38	50% 107.59	25% 53.79
	9 10				
BOD Removed		215.17	161.38	107.59	53.79
BOD Removed Non-Volatile TSS	10	215.17 12.50	161.38 9.37	107.59 6.25	53.79 3.12
BOD Removed Non-Volatile TSS Solids Produced (lbs)	10 11	215.17 12.50 107.59	161.38 9.37 80.69	107.59 6.25 53.79	53.79 3.12 26.90

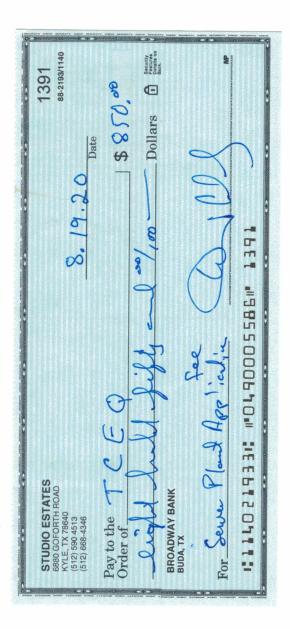
Sludge will be wasted from the RAS flow stream to the aerobic digester. Sludge solids will be stabilized in the digester; supernatant will be decanted from the digester and returned to the facility headworks for treatment.

Liquid digested sludge will be removed from the digester for disposal on a regular basis as required. The calculated mean cell residence time for the digester storage volume of 20,000 gallons will be approximately 20 days at 100% capacity. Generated waste will be hauled by an approved transporter to a permitted site.

Studio Estates WWTP

Studio Estates Copy of Check

cee



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: Studio Estates, LLC

PERMIT NUMBER:

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

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

For TCEQ Use Only

Segment Number _	County	
Expiration Date	Region	
Permit Number		



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT 1.0

If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 29)

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

Flow	New/Major Ame	ndm	ent 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	v) \$150.00 🗆		
Payment Information:			
Mailed Check/Mon	ey Order Number:		
Check/Mon	ey Order Amount:	<u>\$85</u>	0.00
Name Print	ed on Check: <u>Studi</u>	o Es	tates, LLC
EPAY Voucher Nu	umber:		ler text.
Copy of Payment Vouche	er enclosed?		Yes 🗆
Section 2. Type of Appli	cation (Instrue	ctio	ns Page 29)
⊠ New TPDES			New TLAP
□ Major Amendment <u>with</u> Rep	newal		Minor Amendment <u>with</u> Renewal
□ Major Amendment <u>without</u>	Renewal		Minor Amendment <u>without</u> Renewal
□ Renewal without changes			Minor Modification of permit
For amendments or modificatio	ns, describe the pr	ropo	sed changes:
For existing permits:			
Permit Number: WQ00	e to enter text.		
EPA I.D. (TPDES only): TX	ere to enter text		

Section 3. Facility Owner (Applicant) and Co–Applicant Information (Instructions Page 29)

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

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

Studio Estates, LLC

(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 <u>http://www15.tceq.texas.gov/crpub/</u>

CN: <u>602978512</u>

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., Ms., Miss): Mr.

First and Last Name: David Cuddy

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

Title: President

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?

<u>N/A</u>

(*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: <u>http://www15.tceq.texas.gov/crpub/</u>

CN:

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., Ms., Miss):
First and Last Name:
Credential (P.E, P.G., Ph.D., etc.):
Title: Dick here to enter text

Provide a brief description of the need for a co-permittee:

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.

Attachment: I

Section 4. Application Contact Information (Instructions Page 30)

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., Ms., Miss): <u>Mr.</u>					
	First and Last Name: <u>David Cuddy</u>					
	Credential (P.E, P.G., Ph.D., etc.):					
	Title: <u>President</u>					
	Organization Name: <u>Studio Estates, LLC</u>					
	Mailing Address: <u>7212 Goforth Road Suite 201</u>					
	City, State, Zip Code: <u>Kyle, TX 78640</u>					
	Phone No.: <u>512-590-4513</u> Ext.: Fax No.:					
	E-mail Address: <u>david@studioestates.biz</u>					
	Check one or both: 🛛 Administrative Contact 🗖 Technical Contact					
B.	Prefix (Mr., Ms., Miss): <u>Mr.</u>					
	First and Last Name: <u>Charles Gillespie</u>					
	Credential (P.E, P.G., Ph.D., etc.):					
	Title: <u>President</u>					
	Organization Name: Consulting Environmental Engineers, Inc					
	Mailing Address: <u>150 N. Harbin Dr. Ste. 408</u>					
	City, State, Zip Code: <u>Stephenville, TX 76401</u>					
	Phone No.: <u>254-968-8130</u> Ext.: Fax No.: <u>254-968-8134</u>					
	E-mail Address: <u>ceeinc@ceeinc.org</u>					
	Check one or both: Administrative Contact Check one or both: Check on					

Section 5. Permit Contact Information (Instructions Page 30)

Provide two names of individuals that can be contacted throughout the permit term.

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

	First and Last Name: <u>David Cuddy</u>
	Credential (P.E, P.G., Ph.D., etc.):
	Title: <u>President</u>
	Organization Name: <u>Studio Estates, LLC</u>
	Mailing Address: <u>7212 Goforth Road Suite 201</u>
	City, State, Zip Code: <u>Kyle, TX 78640</u>
	Phone No.: <u>512-590-4513</u> Ext.: Fax No.:
	E-mail Address: <u>david@studioestates.biz</u>
B.	Prefix (Mr., Ms., Miss): <u>Ms.</u>
	First and Last Name: <u>Raschell Spillers</u>
	Credential (P.E, P.G., Ph.D., etc.):
	Title: <u>General Manager</u>
	Organization Name: <u>Studio Estates, LLC</u>
	Mailing Address: <u>7212 Goforth Road Suite 201</u>
	City, State, Zip Code: <u>Kyle, TX 78640</u>
	Phone No.: <u>512-909-7888</u> Ext.: Fax No.:
	E-mail Address: <u>raschellspillers@yahoo.com</u>

Section 6. Billing Information (Instructions Page 30)

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., Ms., Miss): <u>Mr.</u>			
First and Last Name: <u>David Cuddy</u>			
Credential (P.E, P.G., Ph.D., etc.):			
Title: <u>President</u>			
Organization Name: <u>Studio Estates, LLC</u>			
Mailing Address: <u>7212 Goforth Road Suite 201</u>			
City, State, Zip Code: <u>Kyle, TX 78640</u>			
Phone No.: <u>512-590-4513</u> Ext.: Fax No.:			
E-mail Address: david@studioestates.biz			

Section 7. DMR/MER Contact Information (Instructions Page 31)

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

Prefix (Mr., Ms., Miss): <u>Ms.</u>
First and Last Name: <u>Raschell Spillers</u>
Credential (P.E, P.G., Ph.D., etc.):
Title: <u>General Manager</u>
Organization Name: <u>Studio Estates, LLC</u>
Mailing Address: <u>7212 Goforth Road Suite 201</u>
City, State, Zip Code: <u>Kyle, TX 78640</u>
Phone No.: <u>512-909-7888</u> Ext.: Fax No.:
E-mail Address: raschellspillers@yahoo.com

DMR data is required to be submitted electronically. Create an account at:

https://www.tceq.texas.gov/permitting/netdmr/netdmr.html.

Section 8. Public Notice Information (Instructions Page 31)

A. Individual Publishing the Notices

Prefix (Mr., Ms., Miss): <u>Mr.</u>				
First and Last Name: <u>Charles Gillespie</u>				
Credential (P.E, P.G., Ph.D., etc.):				
Title: <u>President</u>				
Organization Name: <u>Consulting Environmental Engineers, Inc.</u>				
Mailing Address: <u>150 N. Harbin Dr. Ste 408</u>				
City, State, Zip Code: <u>Stephenville, TX 76401</u>				
Phone No.: <u>254-968-8130</u> Ext.: Fax No.: <u>254-968-8134</u>				
E-mail Address: <u>ceeinc@ceeinc.org</u>				

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:

- E-mail Address ceeinc@ceeinc.org
- □ Fax
- 🛛 Regular Mail

C. Contact person to be listed in the Notices

Prefix (Mr., Ms., Miss): <u>Mr.</u>

First and Last Name: David Cuddy

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

Title: <u>President</u>

Organization Name: <u>Studio Estates, LLC</u>

Phone No.: <u>512-590-4513</u> Ext.:

E-mail: <u>david@studioestates.biz</u>

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: <u>San Marcus Public Library</u>

Location within the building: <u>Front Desk</u>

Physical Address of Building: <u>625 E Hopkins St</u>

City: <u>San Marcos</u>

County: <u>Hays</u>

Contact Name: <u>Adam Landry</u>

Phone No.:(<u>512)-393-8200</u> Ext.:

E. Bilingual Notice Requirements:

This information **is required** for **new, major amendment, and renewal applications**. It is not required for minor amendment or minor modification 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 🗆 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? <u>Spanish</u>

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 33)

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

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

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

Studio Estates WWTP

C. Owner of treatment facility: <u>Studio Estates, LLC</u>

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

Prefix (Mr., Ms., Miss):

First and Last Name: Studio Estates, LLC

Mailing Address: 7212 Goforth Road Suite 201

City, State, Zip Code: Kyle, TX 78640

Phone No.: <u>512-590-4513</u> E-mail Address: <u>david@studioestates.biz</u>

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:

E. Owner of effluent disposal site:

Prefix (Mr., Ms., Miss): First and Last Name: <u>N/A</u> Mailing Address: City, State, Zip Code: Phone No.: E-mail Address:

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:

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

Prefix (Mr., Ms., Miss):				
First and Last Name: <u>N/A</u>				
Mailing Address: Address and a second s				
City, State, Zip Code: Chelebore to enter the state				
Phone No.: E-mail Address:				

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:

Section 10. TPDES Discharge Information (Instructions Page 34)

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:				
New Permit - 1075 Rohde Road Kyle, TX 78640				

- **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:

New Permit- The effluent will flow to Brushy Creek, thence to Plum Creek Classified Segment #1810.

City nearest the outfall(s): <u>Kyle</u>

County in which the outfalls(s) is/are located: <u>Hays</u>

Outfall Latitude: <u>30.020634</u>

Longitude: <u>-97.770046</u>

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 gran	ed □	Authorization pending
--------------------	------	-----------------------

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

Attachment:

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.

<u>N/A</u>

Section 11. TLAP Disposal Information (Instructions Page 36)

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:

- **B.** City nearest the disposal site:
- **C.** County in which the disposal site is located:
- **D.** Disposal Site Latitude:

Longitude:

- E. For TLAPs, describe the routing of effluent from the treatment facility to the disposal site:
- **F.** For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained:

Section 12. Miscellaneous Information (Instructions Page 37)

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

🗆 Yes 🖾 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?
 - \Box Yes \Box No \boxtimes 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.

Click here to enter text.		

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

Yes	\boxtimes	No
 100		1.0

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

D. Do you owe any fees to the TCEQ?

🗆 Yes 🖾 No

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

Account number:

Amount past due:

- **E.** Do you owe any penalties to the TCEQ?
 - 🗆 Yes 🖾 No

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

Enforcement order number:

Amount past due:

Section 13. Attachments (Instructions Page 38)

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.
- 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
- □ Other Attachments. Please specify:

Section 14. Signature Page (Instructions Page 39)

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

Permit Number: New Permit

Applicant: Studio Estates, LLC

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): David Cuddy

Signatory title: President

Signature:

(Use blue ink)

	~	
Subscribed and Sworn to bef	Fore me by the said David Cu	didu
on this 10	day of november	. 20 20
My commission expires on th		, 2021

Notary Public

County, Texas



Date: 11.10.20

Studio Estates WWTP

DOMESTIC ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 41)

- A. Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:
 - The applicant's property boundaries
 - The facility site boundaries within the applicant's property boundaries
 - The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
 - 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).)
 - The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
 - 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.** 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:
 - \boxtimes Readable/Writeable CD \square Four sets of labels
- **D.** Provide the source of the landowners' names and mailing addresses: <u>Hays CAD</u>
- **E.** As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?
 - 🗆 Yes 🛛 No

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

Section 2. Original Photographs (Instructions Page 44)

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

- At least one original photograph of the new or expanded treatment unit location
- 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
- A plot plan or map showing the location and direction of each photograph

Section 3. Buffer Zone Map (Instructions Page 44)

- **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
 - □ 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)?



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:	
Application type:RenewalMa	ajor AmendmentNinor AmendmentNew
County:	Segment Number:
Admin Complete Date:	
Agency Receiving SPIF:	
Texas Historical Commission	U.S. Fish and Wildlife
Texas Parks and Wildlife Depart	ment U.S. Army Corps of Engineers

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

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

Do not refer to a response of any item in the permit application form. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee: <u>Studio Estates, LLC</u>

Permit No. WQ00 ____

EPA ID No. TX

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

1075 Rohde Road Kyle, TX 78640

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): <u>Mr.</u>

First and Last Name: <u>David Cuddy</u> Credential (P.E, P.G., Ph.D., etc.): Title: <u>Owner</u> Mailing Address: <u>7212 Goforth Road Suite 201</u> City, State, Zip Code: <u>Kyle, TX 78640</u> Phone No.: <u>512-590-4513</u> Ext.: Fax No.: E-mail Address: <u>david@studioestates.biz</u>

- 2. List the county in which the facility is located: <u>Hays</u>
- If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.
- 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 will flow to Brushy Creek, thence to Plum Creek Classified Segment #: 1810.

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

100-300 acres of construction will be done to develop a multitude of office buildings, warehouses, restaurants, and grocery/retail stores.

7. Describe existing disturbances, vegetation, and land use: Currently undeveloped.

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

- 8. List construction dates of all buildings and structures on the property: <u>N/A</u>
- 9. Provide a brief history of the property, and name of the architect/builder, if known. <u>N/A</u>

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	BY OVERNIGHT/EXPRESS MAIL
Texas Commission on Environmental Quality	Texas Commission on Environmental Quality
Financial Administration Division	Financial Administration Division
Cashier's Office, MC-214	Cashier's Office, MC-214
P.O. Box 13088	12100 Park 35 Circle
Austin, Texas 78711-3088	Austin, Texas 78753

Fee Code: WQP Waste Permit No:

- 1. Check or Money Order Number:
- 2. Check or Money Order Amount: <u>\$850.00</u>
- 3. Date of Check or Money Order:
- 4. Name on Check or Money Order: Studio Estates, LLC
- 5. APPLICATION INFORMATION

Name of Project or Site: <u>Studio Estates WWTP</u>

Physical Address of Project or Site: <u>1075 Rohde Road Kyle, TX 78640</u>

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

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ATTACHMENT 1

INDIVIDUAL INFORMATION

Section 1. Individual Information (Instructions Page 50)

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):
Full legal name (first, middle, last):
Driver's License or State Identification Number:
Date of Birth:
Mailing Address:
City, State, and Zip Code:
Phone Number: Fax Number:
E-mail Address:
CN: Click here to enter text.
For Commission Use Only:
Customer Number:
Regulated Entity Number:
Permit Number:



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY **DOMESTIC WASTEWATER PERMIT APPLICATION**

DOMESTIC TECHNICAL REPORT 1.0

The Following Is Required For All Applications Renewal, New, And Amendment

Section 1. Permitted or Proposed Flows (Instructions Page 51)

A. Existing/Interim I Phase

Design Flow (MGD): <u>0.075</u> 2- Hr Peak Flow (MGD): <u>0.3</u> Estimated construction start date: <u>09/21/2021</u> Estimated waste disposal start date: <u>12/21/2021</u>

B. Interim II Phase

Design Flow (MGD): 2- Hr Peak Flow (MGD): Estimated construction start date: Estimated waste disposal start date:

C. Final Phase

Design Flow (MGD): <u>0.15</u> 2- Hr Peak Flow (MGD): <u>0.6</u> Estimated construction start date: <u>09/21/2022</u> Estimated waste disposal start date: <u>12/21/2022</u>

D. Current operating phase:

Provide the startup date of the facility: <u>12/21/2021</u>

Section 2. Treatment Process (Instructions Page 51)

A. Treatment process description

Provide a detailed description of the treatment process. Include the type of

Studio Estates WWTP - New Permit

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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 in the permit, a description of** *each phase* **must be provided**. Process description:

Effluent will flow from source, to a prepackaged activated sludge plant using continuous aeration treatment. Sewage passes through a bar screen to an aeration chamber and then to a clarifier. Sludge is transferred to a holding chamber and supernatant is moved through a chlorine contact chamber to discharge.

Port or pipe diameter at the discharge point, in inches: $\underline{4}$

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**.

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Aeration Basin	2	142' x 11.25' x 9.5'`
Digester	2	43' x 11.25' x 9.5'
Clarifier (Round)	2	21' diameter
Chlorine Chamber	2	8' x 11.25' x 9.5'

 Table 1.0(1) - Treatment Units

C. Process flow diagrams

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

Attachment: <u>IX</u>

Section 3. Site Drawing (Instructions Page 52)

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: \underline{X}

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

Studio Estates WWTP – will serve a multitude of proposed office buildings. restaurants, warehouses, and grocery/retail stores.

Section 4. Unbuilt Phases (Instructions Page 52)

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

phases?

No 🖂 Yes □

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

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.

Section 5. Closure Plans (Instructions Page 53)

Have any treatment units been taken out of service permanently, or will any units be taken out of service in the next five years? No 🖂

Yes \square

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.

Section 6. Permit Specific Requirements (Instructions Page 53)

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 \square No \boxtimes (New Permit)

If yes, provide the date(s) of approval for each phase:

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 TCEO, if applicable.

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

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relevant to maintaining the buffer zones.

N/A

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 \Box No \boxtimes (New Permit)

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

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.

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 512–239–0000. 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.

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 512–239–0000.

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

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?

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TCEQ-10054 (06/01/2017) Domestic Wastewater Permit Application, Technical Reports 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

or TXRNE

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:

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 here 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.

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. 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 \square No \boxtimes

If yes, a Sewage Sludge Solids Management Plan is required. See Example 5 in the instructions.

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

1. Acceptance of sludge from other WWTPs

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

Yes □ No ⊠

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

In addition, provide the date that the plant started accepting sludge or is anticipated to start accepting sludge, an estimate of monthly sludge

acceptance (gallons or millions of gallons), an estimate of the BOD₅

concentration of the sludge, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Note: Permits that accept sludge from other wastewater treatment plants Studio Estates WWTP – New Permit 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 ⊠

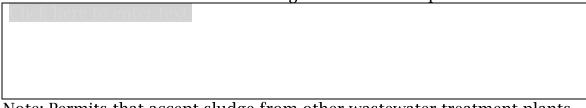
If yes, does the facility have a Type V processing unit?

Yes □ No ⊠

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

Yes 🗆 🛛 No 🖂

If yes to any of the above, provide a the date that the plant started accepting septic waste, or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the septic waste, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.



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 the facility accepting or will it 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.

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

Is the facility in operation?

Yes \Box No \boxtimes (New Proposed System)

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). *Water treatment facilities* discharging filter backwash water, complete Table 1.0(3).

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

Iuble 1.0(2) - Pollutari Dollutant	Average	Max	No. of	Sample	Sample
Pollutant	Conc.	Conc.	Samples	Туре	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					
<i>E.coli</i> (CFU/100ml) freshwater					
Entercocci (CFU/100ml) saltwater					
Total Dissolved Solids, mg/l					
Electrical Conductivity,					
µmohs/cm, †					

Table 1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities

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Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Oil & Grease, mg/l					
Alkalinity (CaCO ₃)*, mg/l					

*TPDES permits only

†TLAP permits only

Table 1.0(3) – Pollutant Analysis for Water Treatment Facilities

Pollutant	Average	Max	No. of	Sample	Sample
Pollulall	Conc.	Conc.	Samples	Туре	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 60)

Facility Operator Name: <u>Licensed operator will be determined upon permit</u> <u>approval.</u>

Facility Operator's License Classification and Level:

Facility Operator's License Number:

Section 9. Sewage Sludge Management and Disposal (Instructions Page 60)

A. Sludge disposal method

Identify the current or anticipated sludge disposal method or methods from the following list. Check all that apply.

- ☑ Permitted landfill
- Permitted or Registered land application site for beneficial use

Studio Estates WWTP - New Permit

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				-	
	Land application for	homoficial was	authorized in	the transformator	normit
1 1	Land application to	' nenericiai iise	annorizeo in	ine wasiewaier	nermi
<u> </u>	Lana application for	beneficial abe	uuunoniizeu m	the mastemater	Permit

- Permitted sludge processing facility
- □ Marketing and distribution as authorized in the wastewater permit
- Composting as authorized in the wastewater permit
- □ Permitted surface disposal site (sludge monofill)
- Surface disposal site (sludge monofill) authorized in the wastewater permit
- Transported to another permitted wastewater treatment plant or permitted sludge processing facility. If you selected this method, a written statement or contractual agreement from the wastewater treatment plant or permitted sludge processing facility accepting the sludge must be included with this application.
- \Box Other:

B. Sludge disposal site

Disposal site name: <u>To be determined</u>.

TCEQ permit or registration number: County where disposal site is located:

C. Sludge transportation method

Method of transportation (truck, train, pipe, other): <u>Truck</u>

Name of the hauler: <u>TCEQ approved hauler to be determined.</u>

Hauler registration number:

Sludge is transported as a:

Liquid 🗆	semi–liquid 🖂	semi–solid [
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Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

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

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solid \square

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 61)

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:

• USDA Natural Resources Conservation Service Soil Map:

Attachment:

• Federal Emergency Management Map:

Studio Estates WWTP – New Permit

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Attachment:

• Site map:

Attachment:

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
- \Box None of the above

Attachment:

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:

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:

Total Kjeldahl Nitrogen, mg/kg:
Total Nitrogen (=nitrate nitrogen + TKN), mg/kg:
Phosphorus, mg/kg:
Potassium, mg/kg:
pH, standard units:
Ammonia Nitrogen mg/kg:
Arsenic: Makhara to entertext
Cadmium: Click here to enter text.

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Chromium: Click here to enter text.
Copper: Contract Cont
Lead: Click here to enter text
Mercury: Click here to enter text
Molybdenum:
Nickel: Click here to enter text.
Selenium: Chiele honor to the total
Zinc:
Total PCBs: Children and the second
Provide the following information: Volume and frequency of sludge to the lagoon(s):
Total dry tons stored in the lagoons(s) per 365–day period:
enter text.
Total dry tons stored in the lagoons(s) over the life of the unit:

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec?

Yes 🗆 🛛 No 🗆

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

D. Site development plan

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

Attach the following documents to the application.

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

Attachment:

• Copy of the closure plan

Attachment:

• Copy of deed recordation for the site

Attachment:

• Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

Attachment:

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

Attachment:

• Procedures to prevent the occurrence of nuisance conditions

Attachment:

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:

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 63)

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:

Click here to enter text.		

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:

Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

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: hisk here to enter text

Section 14. Laboratory Accreditation (Instructions Page 64)

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: David Cuddy

Title: <u>Owner/President</u>

Signature: Date: 8.19.20

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DOMESTIC TECHNICAL REPORT 1.1

The following is required for new and amendment applications

Section 1. Justification for Permit (Instructions Page 66)

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.

<u>The proposed WWTP will be used to serve a multitude of proposed office</u> buildings, restaurants, warehouses, and grocery/retail stores.

B. Regionalization of facilities

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 \Box No \boxtimes Not Applicable \Box

If yes, within the city limits of:

If yes, attach correspondence from the city.

Attachment:

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:

2. Utility CCN areas

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

Yes \Box No \boxtimes

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:

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 that includes the permittee's name and permit number, and an area map showing the location of these facilities.

Attachment: XI

If yes, attach copies of your certified letters to these facilities **and** their response letters concerning connection with their system.

Attachment: XI

Does a permitted domestic wastewater treatment facility or a collection system located within three (3) miles of the proposed facility currently have the capacity to accept or is willing to expand to accept the volume of wastewater proposed in this application?

Yes □ No ⊠

If yes, attach an analysis of expenditures required to connect to a permitted wastewater treatment facility or collection system located within 3 miles versus the cost of the proposed facility or expansion.

Attachment:

Section 2. Organic Loading (Instructions Page 67)

Is this facility in operation?

Yes □ No ⊠

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

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TCEQ-10054 (06/01/2017) Domestic Wastewater Permit Application, Technical Reports **If yes**, provide organic loading information in Item A, Current Organic Loading

A. Current organic loading

Facility Design Flow (flow being requested in application):

Average Influent Organic Strength or BOD₅ Concentration in mg/l:

Average Influent Loading (lbs/day = total average flow X average BOD₅ conc. X 8.34):

Provide the source of the average organic strength or BOD₅ concentration.

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.

Source	Total Average Flow (MGD)	Influent BOD ₅ Concentration (mg/l)
Municipality		
Subdivision		
Trailer park - transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		

 Table 1.1(1) - Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD ₅ Concentration (mg/l)		
Recreational park, overnight use				
Recreational park, day use				
Office building or factory	0.01315	300		
Motel	0.01125	300		
Restaurant	0.01	1000		
Hospital				
Nursing home	0.0072	300		
Other	0.069375	300		
TOTAL FLOW from all sources	0.075			
AVERAGE BOD ₅ from all sources		364		

Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 68)

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:

Total Phosphorus, mg/l:

Dissolved Oxygen, mg/l: 2

Other:

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B. Interim II Phase Design Effluent Quality

Biochemical Oxygen Demand (5–day), mg/l:
Total Suspended Solids, mg/l:
Ammonia Nitrogen, mg/l:
Total Phosphorus, mg/l:
Dissolved Oxygen, mg/l:
Other: Click bere to enter text.

C. Final Phase Design Effluent Quality

Biochemical Oxygen Demand (5–day), mg/l: <u>20</u>		
Total Suspended Solids, mg/l: <u>20</u>		
Ammonia Nitrogen, mg/l:		
Total Phosphorus, mg/l:		
Dissolved Oxygen, mg/l: <u>2</u>		

Other:

D. Disinfection Method

Identify the proposed method of disinfection.

Chlorine: $\underline{1}$ mg/l after $\underline{20}$ minutes detention time at peak flow

Dechlorination process:

- Ultraviolet Light: discussed and seconds contact time at peak flow
- \Box Other:

Section 4. Design Calculations (Instructions Page 68)

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

Attachment:	Click here to	text

Section 5. Facility Site (Instructions Page 68)

A. 100-year floodplain

Will the proposed facilities be located <u>above</u> 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.

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

FEMA Map No. 48209C0295F

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:

If no, provide the approximate date you anticipate submitting your application to the Corps:

B. Wind rose

Attach a wind rose. Attachment: \underline{XIV}

Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 69)

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?

Studio Estates WWTP – New Permit TCEQ-10054 (06/01/2017) Page 25 of 79 Domestic Wastewater Permit Application, Technical Reports Yes □ No ⊠

If yes, attach the completed Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)

Attachment:

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 a completed DOMESTIC WASTEWATER PERMIT APPLICATION: SEWAGE SLUDGE TECHNICAL REPORT (TCEQ Form No. 10056).

Attachment:

Section 7. Sewage Sludge Solids Management Plan (Instructions Page 69)

Attach a solids management plan to the application. Attachment: XV

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 TECHNICAL REPORT WORKSHEET 2.0

RECEIVING WATERS

The following is required for all TPDES permit applications

Section 1. Domestic Drinking Water Supply (Instructions Page 73)

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 yes, provide the following:

Owner of the drinking water supply:

Distance and direction to the intake:

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

Attachment:

Section 2. Discharge into Tidally Affected Waters (Instructions Page 73)

Does the facility discharge into tidally affected waters?

Yes 🗆 🛛 No 🖾

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:

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).

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).

Section 3. Classified Segments (Instructions Page 73)

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 75)

Name of the immediate receiving waters: <u>Unnamed tributary</u>

A. Receiving water type

Identify the appropriate description of the receiving waters.

- ⊠ Stream
- Freshwater Swamp or Marsh
- □ Lake or Pond

Surface area, in acres:

Average depth of the entire water body, in feet:

Average depth of water body within a 500–foot radius of discharge point, in feet:

□ Man-made Channel or Ditch

Open Bay

Tidal Stream, Bayou, or Marsh

Other, specify:

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 \boxtimes 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 \boxtimes
- Other, specify:

C. Downstream perennial confluences

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

Unnamed tributary thence to Brushy Creek.

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 \square No 🖂

If yes, discuss how.

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Click here to	o enter text.			

E. Normal dry weather characteristics

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

The creek is intermittent with shallow perennial pools.

Date and time of observation: 09/16/2020

Was the water body influenced by stormwater runoff during observations?

Yes □ No ⊠

Section 5. General Characteristics of the Waterbody (Instructions Page 74)

A. Upstream influences

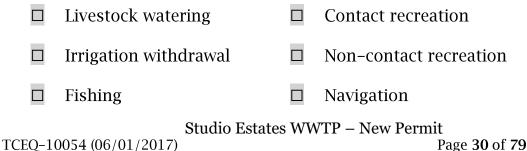
Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

- Oil field activitiesUrban runoff
- Upstream discharges
 Agricultural runoff
- □ Septic tanks

 \Box Other(s), specify

B. Waterbody uses

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



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Domestic water supply		Industrial water supply
Park activities	\boxtimes	Other(s), specify <u>None observed</u>

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