

MUNICIPAL WASTEWATER TPDES PERMIT APPLICATION OASIS OF TEXAS PHASE 1 14625 US Highway 59 N POLK COUNTY, TEXAS

SUBMITTED TO: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER QUALITY DIVISION

October 2023

PREPARED BY:

WWD Engineering

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(512) 288-2111



TPDES Municipal Wastewater Permit Application Oasis of Texas, Phase 1

TABLE OF CONTENTS

I	Application Administrative Report
	Submission Checklist
	Domestic Administrative Report 1.0
	Domestic Administrative Report 1.1
	SPIF

II

Application Technical Report
Domestic Technical Report Worksheet 1.0 Domestic Technical Report Worksheet 1.1 Domestic Technical Report Worksheet 2.0

LIST OF ATTACHMENTS

Attachment No.	<u>Title</u>	Permit Reference
1	Permit Justification	
2	Core Data Form	Admin Report 1.0, 3C
3	USGS Map	Admin Report 1.0, 13
4	Site Plan	Admin Report 1.0, 13
5	Adjacent Landowner Map	Admin Report 1.1, 1
6	Adjacent Landowner List and Labels	Admin Report 1.1, 1
7	Photographs	Admin Report 1.1, 2
8	Photograph Location Map	Admin Report 1.1, 2
9	Buffer Zone Map	Admin Report 1.1, 3
10	Treatment Process Description	Tech Report 1.0, 2A
11	Treatment Unit Sizing	Tech Report 1.0, 2B
12	Treatment Process Flow Diagram	Tech Report 1.0, 2C
13	Site Drawing	Tech Report 1.0, 3
14	Justification for Proposed Facility	Tech Report 1.1, 1B2
15	WWTP within 3 miles	Tech Report 1.1, 1B3
16	Letters to WWTP within 3 miles	Tech Report 1.1, 1B3
17	Design Calculations	Tech Report 1.1, 4
18	Wind Rose	Tech Report 1.1, 5
19	Sewage Sludge Solids Management Plan	Tech Report 1.1, 7
20	PIP Form	Admin Report 1.0, 8F
SPIF Attachment		
SPIF1	USGS Map (8.5x11 or 11x17)	



TCFQ

APPLICANT: The Oasis of Texas, LP

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

PERMIT NUMBER:		text.				
Indicate if each of the following items is included in your application.						
	Y	N		Y	N	
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		
Public Involvement Plan Form	\boxtimes		Flow Diagram	\boxtimes		
Technical Report 1.0	\boxtimes		Site Drawing	\boxtimes		
Technical Report 1.1	\boxtimes		Original Photographs	\boxtimes		
Worksheet 2.0	\boxtimes		Design Calculations	\boxtimes		
Worksheet 2.1		\boxtimes	Solids Management Plan	\boxtimes		
Worksheet 3.0		\boxtimes	Water Balance		\boxtimes	
Worksheet 3.1		\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				
Eon TOEO Has Only						
For TCEQ Use Only						
Segment Number Expiration Date Permit Number			_County _Region		-	



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 Amend	ment 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 ≥0.50 but <1.0 MGD	\$1,250.00 □ \$1,650.00 □	\$1,215.00 □ \$1,615.00 □					
≥1.0 MGD	\$2,050.00 \(\square\)	\$2,015.00 \(\square\)					
Minor Amendment (for any flow	9) \$150.00 □						
Payment Information:							
Mailed Check/Mone	ey Order Number: <u>42</u> 4	<u>40</u>					
Check/Mon	ey Order Amount: <u>550</u>	<u>).00</u>					
Name Printe	ed on Check: <u>WWD En</u>	gineering					
EPAY Voucher Nu	mber: Click here to e	iter text.					
Copy of Payment Vouche	r enclosed?	Yes □					
Section 2. Type of Appli	cation (Instruction	ons Page 29)					
		New TLAP					
☐ Major Amendment <u>with</u> Rer	newal \square	Minor Amendment with Renewal					
☐ Major Amendment <u>without</u>	Renewal \square	Minor Amendment <u>without</u> Renewal					
☐ Renewal without changes		Minor Modification of permit					
For amendments or modification	ns, describe the propo	osed changes: Mikking to minimum text.					
For existing permits:							
Permit Number: WQ00	e to enter text.						
EPA I.D. (TPDES only): TX	ere to enter text.						
Expiration Date:	enter text						
1							

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

Α.	The owner	of the	facility	must appl	v for	the	permit.
4 N.		or arc	IUCIIICY	must appi	y 101	\mathbf{u}	DCI IIII

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

The Oasis of Texas, LP

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

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

CN:

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: William Jack Dillon

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

Title: <u>President</u>

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?

(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the legal documents forming the entity.)

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

CN:

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:

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: 2

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>Ms</u>
	First and Last Name: <u>Erin Banks</u>
	Credential (P.E, P.G., Ph.D., etc.): <u>PE</u>
	Title: Principal
	Organization Name: <u>WWD Engineering</u>
	Mailing Address: 9217 Hwy 290W; Suite 110
	City, State, Zip Code: <u>Austin, TX 78736</u>
	Phone No.: <u>512-288-2111</u> Ext.: Fax No.:
	E-mail Address:
	Check one or both: $oxed{\boxtimes}$ Administrative Contact $oxed{\square}$ Technical Contact
В.	Prefix (Mr., Ms., Miss):
	First and Last Name:
	Credential (P.E, P.G., Ph.D., etc.):
	Title: Click here to enter text.
	Organization Name:
	Mailing Address:
	City, State, Zip Code:
	Phone No.: Fax No.:
	E-mail Address:
	Check one or both: \square Administrative Contact \square Technical Contact

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: William Jack Dillon

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

Title: President

Organization Name: The Oasis of Texas, LP

Mailing Address: PO Box 337

City, State, Zip Code: Moscow, TX 75960

Phone No.: 281-660-6862 Ext.: Fax No.:

E-mail Address: wjackdillon@gmail.com

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

First and Last Name: Michelle Lea Dillon

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

Title:

Organization Name: The Oasis of Texas, LP

Mailing Address: P.O. Box 337

City, State, Zip Code: Moscow, TX 75960

Phone No.: 281-216-1676 Ext.: Fax No.:

E-mail Address: michelleldillon@yahoo.com

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): Mr

First and Last Name: William Jack Dillon

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

Title: President

Organization Name: The Oasis of Texas, LP

Mailing Address: PO Box 337

City, State, Zip Code: Moscow, TX 75960

Phone No.: <u>281-660-6862</u> Ext.: Fax No.:

E-mail Address: wjackdillon@gmail.com

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): Mr

First and Last Name: William Jack Dillon

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

Title: President

Organization Name: The Oasis of Texas, LP

Mailing Address: PO Box 337

City, State, Zip Code: Moscow, TX 75960

Phone No.: 281-660-6862 Ext.:

Fax No.:

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): Ms

First and Last Name: <u>Erin Banks</u> Credential (P.E, P.G., Ph.D., etc.): <u>PE</u>

Title: Principal

Organization Name: WWD Engineering

E-mail Address: wjackdillon@gmail.com

Mailing Address: 9217 Hwy 290W; Suite 110

City, State, Zip Code: Austin, TX 78736

Phone No.: 512-288-2111 Ext.: Fax No.:

E-mail Address: erin.banks@wwdengineering.net

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:

□ Fax

□ Regular Mail

C. Contact person to be listed in the Notices

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

First and	d Last Name: <u>W</u>	illiam Jack I	<u> Dillon</u>	
Credent	ial (P.E, P.G., Ph	n.D., etc.):	ck here to enter text.	
Title: Pre	<u>esident</u>			
Organiza	ation Name: <u>Tł</u>	ne Oasis of T	<u> Texas, LP</u>	
Phone N	o.: <u>281-660-68</u>	62 Ext.:	k here to enter text.	
E-mail: <u>v</u>	vjackdillon@gr	nail.com		
Public V	iewing Inform	nation		
	cility or outfall nust be provide		more than one count	y, a public viewing place for each
Public b	uilding name: <u>l</u>	Livingston M	<u>[unicipal Library</u>	
Location	within the bu	ilding: <u>Front</u>	<u>Desk</u>	
Physical	Address of Bu	ilding: <u>707 N</u>	<u>North Tyler Ave; Livin</u>	gston, TX 77351
City: <u>Liv</u>	<u>ingston</u>		County: Polk	
Contact	Name: <u>Christir</u>	<u>na</u>		
Phone N	o.: <u>936-327-43</u>	52 Ext.:	k here to enter text.	
Bilingua	l Notice Requi	irements:		
	_		ew, major amendm wal applications.	ent, minor amendment or
		•	••	
be neede		nstructions o		e if alternative language notices will rnative language notices will be in
	he following in			lementary and middle schools and an alternative language notices are
	0		n required by the Tex earest to the facility or	as Education Code at the proposed facility?
	Yes	⊠ No		
If no belov	-	f an alternat	ive language notice is	not required; skip to Section 9
	he students wh ngual educatio		_	nool or the middle school enrolled in
	l Yes	□ No		
3. Do the locat		these school	s attend a bilingual e	ducation program at another

D.

E.

			Yes		No
	4.				quired to provide a bilingual education program but the school equirement under 19 TAC §89.1205(g)?
			Yes		No
	5.				uestion 1, 2, 3, or 4, public notices in an alternative language are ge is required by the bilingual program?
F.	Pu	blic Inv	volvement P	lan F	form
	ne	_	nit or major		ement Plan Form (TCEQ Form 20960) for each application for a andment to a permit and include as an attachment.
Se	cti	ion 9. Page	_	d En	tity and Permitted Site Information (Instructions
A.			is currently	regul	lated by TCEQ, provide the Regulated Entity Number (RN) issued
			e TCEQ's Cer currently re		Registry at http://www15.tceq.texas.gov/crpub/ to determine if red by TCEQ.
B.	Na	me of p	project or site	e (the	e name known by the community where located):
	<u>Th</u>	<u>e Oasis</u>	of Texas		
C.	Ov	vner of	treatment fa	cility	r: <u>The Oasis of Texas, LP</u>
	Ov	vnershi	p of Facility:		Public ⊠ Private □ Both □ Federal
D.	Ov	vner of	land where t	reatn	nent facility is or will be:
	Pr	efix (Mr	., Ms., Miss):		here to enter text
	Fir	st and	Last Name: <u>T</u>	he Oa	asis of Texas, LP
	Ma	ailing A	ddress: <u>PO B</u>	ox 33	<u>87</u>
	Ci	ty, State	e, Zip Code: <u>N</u>	Mosco	ow, TX 75960
	Ph	one No	.: <u>281-660-68</u>	<u> 862</u>	E-mail Address: wjackdillon@gmail.com
					same person as the facility owner or co-applicant, attach a lease d easement. See instructions.
		Attach	ment:		o enter text
E.	Ov	vner of	effluent disp	osal	site:
	Pr	efix (Mr	., Ms., Miss):		here to enter text
	Fir	st and	Last Name:		here to enter text.

	Mailing Address:
	City, State, Zip Code: Malahawa managanan ang
	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:
	City, State, Zip Code: Charles to a more rest
	Phone No.: E-mail Address: 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: Wick here to enter text
Sc	ection 10. TPDES Discharge Information (Instructions Page 34)
	Is the wastewater treatment facility location in the existing permit accurate?
	Is the wastewater treatment facility location in the existing permit accurate? \square Yes \boxtimes No
	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:
	Is the wastewater treatment facility location in the existing permit accurate? \square Yes \boxtimes No
	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:
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:
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: 14625 US Hwy 59 North; Moscow, TX 75960
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: ☐ 14625 US Hwy 59 North; Moscow, TX 75960 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:
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: ☐ 14625 US Hwy 59 North; Moscow, TX 75960 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
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: ☐ 14625 US Hwy 59 North; Moscow, TX 75960 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: From the plant site to an unnamed ditch, thence to Sand Creek, thence, for several miles
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: ☐ 14625 US Hwy 59 North; Moscow, TX 75960 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: From the plant site to an unnamed ditch, thence to Sand Creek, thence, for several miles to Long King Creek, Segment 0802B.

	City nearest the disposal site: County in which the disposal site is located:
	Click here to enter text.
7 1.	Yes No If no, or a new or amendment permit application , provide an accurate description of the disposal site location:
	ection 11. TLAP Disposal Information (Instructions Page 36) For TLAPs, is the location of the effluent disposal site in the existing permit accurate?
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.
	For new and amendment applications, provide copies of letters that show proof of contact and the approval letter upon receipt. Attachment:
	If yes , indicate by a check mark if: ☐ Authorization granted ☐ Authorization pending
	□ Yes ⊠ No
	or a flood control district drainage ditch?

Se	ection 12. Miscellaneous Information (Instructions Page 37)
A.	Is the facility located on or does the treated effluent cross American Indian Land? □ Yes □ No
В.	If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate?
	\square Yes \square 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 ⊠ No
	If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application:
	Click here to enter text.
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: <u>See Table of Contents</u>

Section 14. Signature Page (Instructions Page 39)

If co-applicants are necessary, each entity must submit an original, separate signature page. Permit Number: Applicant: The Oasis of Texas, LP 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): William Jack Dillon Signatory title: Owner / President Date: 8-8-23 Signature: (Use blue ink) Subscribed and Sworn to before me by the said william Dillon ,20 23 . day of SEPTEMBER on this MAY ,20 27. 20 day of My commission expires on the_ WILLIAM CHARLES HIGHTOWER Notary Public, State of Texas [SEAL] Comm. Expires 05-20-2027 Notary ID 132019803 POLIL

County, Texas

Section 15. Plain Language Summary (Instructions Page 40)

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

DOMESTIC WASTEWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application. The Oasis of Texas, LP (CN TBD) proposes to operate The Oasis of Texas WWTP (RN TBD) a wastewater treatment plant. The facility will be located at 14625 US Highway 59 North, in Moscow, Polk County, Texas 75960.

The wastewater treatment plant will be for Phase I of the Oasis of Texas residential development for 50,000 gallons per day.

Discharges from the facility are expected to contain TSS and BOD. Domestic wastewater will be treated by an activated sludge wastewater treatment plant.

DOMESTIC ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 41)

	4	41)	
Α.	Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:		
	☐ The applicant's property boundaries		
	\boxtimes	The facility site boundaries within the applicant's property boundaries	
	The distance the buffer zone falls into adjacent properties and the property boundar of the landowners located within the buffer zone		
	The property boundaries of all landowners surrounding the applicant's property (Note: 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 router 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 sludg for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is locate		
		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	
В.		Indicate by a check mark that a separate list with the landowners' names and mailing resses cross-referenced to the landowner's map has been provided.	
C.	Indicate by a check mark in which format the landowners list is submitted:		
		□ USB Drive ⊠ Four sets of labels	
D.	Provide the source of the landowners' names and mailing addresses: <u>Polk County Appraisal District</u>		
Е.	As required by $Texas\ Water\ Code\ \S\ 5.115$, is any permanent school fund land affected by this application?		

No

Yes

	If yes , provide the location and foreseeable impacts and effects this application has on the land(s):		
	Clie	ck here to enter text.	
		on 2. Original Photographs (Instructions Page 44)	
		original ground level photographs. Indicate with checkmarks that the following ation is provided.	
	\boxtimes	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	
	\boxtimes	A plot plan or map showing the location and direction of each photograph	
S	ecti	on 3. Buffer Zone Map (Instructions Page 44)	
A.	info	Fer zone map. Provide a buffer zone map on 8.5×11 -inch paper with all of the following rmation. The applicant's property line and the buffer zone line may be distinguished by g dashes or symbols and appropriate labels.	
	•	The required buffer zone; and Each treatment unit; and	
В.		er zone compliance method. Indicate how the buffer zone requirements will be met. ck all that apply.	
		☐ Ownership	
		Restrictive easement	
		Nuisance odor control	
		□ Variance	
C.		uitable site characteristics. Does the facility comply with the requirements regarding uitable site characteristic found in 30 TAC § 309.13(a) through (d)?	
		⊠ Yes □ No	

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

FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:			
Application type:RenewalMajor AmendmentMinor AmendmentNew			
County: Segment Number:			
Admin Complete Date:			
Agency Receiving SPIF:			
Texas Historical Commission U.S. F	ish and Wildlife		
Texas Parks and Wildlife Department U.S. A			
read ranks and wham's Department 6.5.11	um, corps of Engineers		
This form applies to TPDES permit applications only. (Instr	uctions, Page 53)		
The SPIF must be completed as a separate document. The TCI each agency as required by the TCEQ agreement with EPA. If a addressed or further information is needed, you will be contable before the permit is issued. Each item must be completely ad	any of the items are not completely acted to provide the information		
Do not refer to a response of any item in the permit applicate be provided with this form separately from the administrative application will not be declared administratively complete witts entirety including all attachments.	e report of the application. The		
The following applies to all applications:			
1. Permittee: <u>The Oasis of Texas, LP</u>			
Permit No. WQ00 EPA ID N	No. TX Click here to enter text		
Address of the project (or a location description that incluand county):	ides street/highway, city/vicinity,		
14625 US Hwy 59 North; Polk County, Moscow, TX 75960			

	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: William Jack Dillon	
	Credential (P.E, P.G., Ph.D., etc.):	
	Title: <u>President</u>	
	Mailing Address: PO Box 337	
	City, State, Zip Code: Moscow, TX 75960	
	Phone No.: <u>281-660-6862</u> Ext.: Fax No.:	
	E-mail Address: wjackdillon@gmail.com	
2.	List the county in which the facility is located:	
3. If the property is publicly owned and the owner is different than the permittee/appli		
	please list the owner of the property.	
	$\frac{N/A}{}$	
4. Provide a description of the effluent discharge route. The discharge route must follow the of effluent from the point of discharge to the nearest major watercourse (from the point discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please in the classified segment number.		
	From the plant site to an unnamed ditch, thence to Sand Creek for several miles, thence to	
	Long King Creek Segment 0802B.	
5.	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	

6.	List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features): 120
	120
7.	Describe existing disturbances, vegetation, and land use:
	Grading for site development
	E FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR IENDMENTS TO TPDES PERMITS
8.	List construction dates of all buildings and structures on the property:
	N/A
9.	Provide a brief history of the property, and name of the architect/builder, if known.
	Vacant land, prior history unknown

Disturbance of vegetation or wetlands



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)

Design Flow (MGD):			
2-Hr Peak Flow (MGD):			
Estimated construction start date:			
Estimated waste disposal start date:			
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>0.05</u> 2-Hr Peak Flow (MGD): <u>0.2</u>

A. Existing/Interim I Phase

Estimated construction start date: <u>07/24</u> Estimated waste disposal start date: <u>10/24</u>

D. Current operating phase: N/A

Provide the startup date of the facility: N/A

Section 2. Treatment Process (Instructions Page 51)

A. Treatment process description

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

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

| See attachment 10 |

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**

Port or pipe diameter at the discharge point, in inches: $\underline{6}$

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

See attachment 11

Dimensions (L x W x D)

Units

Table 1.0(1) - Treatment Units

C. Process flow diagrams

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

Attachment: 12

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: 13

The Oasis of Texas Subdivision, Phase 1
Section 4. Unbuilt Phases (Instructions Page 52)
Is the application for a renewal of a permit that contains an unbuilt phase or
phases?
Yes □ No ⊠
If yes, does the existing permit contain a phase that has not been constructed within five years of being authorized by the TCEQ? Yes No
If yes, provide a detailed discussion regarding the continued need for the unbuilt phase. Failure to provide sufficient justification may result in the Executive Director recommending denial of the unbuilt phase or phases.
Click here to enter text.

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? Yes □ No ⊠
If yes, was a closure plan submitted to the TCEQ?
Yes □ No □
If yes, provide a brief description of the closure and the date of plan approval.
Click here to enter text
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
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 TCEQ, if applicable.
Click here to enter text.
B. Buffer zones
Have the buffer zone requirements been met? Yes ⊠ No □
Provide information below, including dates, on any actions taken to meet the conditions of the buffer zone. If available, provide any new documentation

relevant to maintaining the buffer zones.	
Click here to enter text.	
C. Other actions required by the current permit	
Does the <i>Other Requirements</i> or <i>Special Provisions</i> section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc. Yes No	
If yes, provide information below on the status of any actions taken to meet the conditions of an <i>Other Requirement</i> or <i>Special Provision</i> .	
Click here to enter text.	
D. Grit and grease treatment	
1. Acceptance of grit and grease waste	
Does the facility have a grit and/or grease processing facility onsite that	

treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?

Yes □ No ⊠

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

2. Grit and grease processing

Describe below how the grit and grease waste is treated at the facility. In your description, include how and where the grit and grease is introduced to the treatment works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility.

Click here to enter text.
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.
Click here to enter text.
E. Stormwater management
1. Applicability
Does the facility have a design flow of 1.0 MGD or greater in any phase?
Yes □ No ⊠
Does the facility have an approved pretreatment program, under 40 CFR Part 403?

Yes □	No 🗵		
If no to both of the above , then skip to Subsection F, Other Wastes Received.			
2. MSGP co	verage		
	ently permitted unde	e WWTP and dedicated lands for sewage er the TPDES Multi-Sector General Permit	
If yes , please Other Wastes	=	orization Number and skip to Subsection F,	
TXR05		or TXRNE	
If no, do you i	intend to seek cover	age under TXR050000?	
Yes □	No □		
3. Condition	nal 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 No			
If yes , please	explain below then	proceed to Subsection F, Other Wastes	
Received:			
Click here to	enter text.		
4. Existing coverage in individual permit			
Is your storm TPDES or TLA Yes □		ently permitted through this individual	
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	
5. Zero stor	mwater discharge
Do you intend other means? Yes □	to have no discharge of stormwater via use of evaporation or No \square
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 yo	our
treatment plant under this individual permit?	

Yes □ No □

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

Click here to enter text.
Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.
F. Discharges to the Lake Houston Watershed
Does the facility discharge in the Lake Houston watershed? Yes \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 \square No \boxtimes
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 BOD ₅
concentration of the sludge, and the design BOD ₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.
Click here to enter text.

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

2. Acceptance of septic waste
Is the facility accepting or will it accept septic waste?
Yes □ No ⊠
If yes, does the facility have a Type V processing unit?
Yes □ No □
If yes, does the unit have a Municipal Solid Waste permit?
Yes □ No □
If yes to any of the above, provide 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 BOD ₅ concentration of the septic waste, and the design
BOD ₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.
Click here to enter text.
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.

Click here to enter text.

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

Is the facility in operation? Yes \square No \boxtimes

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.

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

n II	Average	Max	No. of	Sample	Sample
Pollutant	Conc.	Conc.	Samples	Type	Date/Time
CBOD ₅ , mg/l					
Total Suspended Solids, mg/l					
Ammonia Nitrogen, mg/l					
Nitrate Nitrogen, mg/l					
Total Kjeldahl Nitrogen, mg/l					
Sulfate, mg/l					
Chloride, mg/l					
Total Phosphorus, mg/l					
pH, standard units					
Dissolved Oxygen*, mg/l					
Chlorine Residual, mg/l					
E.coli (CFU/100ml) freshwater					
Entercocci (CFU/100ml)					

Pollutant	Average	Max	No. of	Sample	Sample
Tonutant	Conc.	Conc.	Samples	Type	Date/Time
saltwater					
Total Dissolved Solids, mg/l					
Electrical Conductivity,					
μmohs/cm, †					
Oil & Grease, mg/l					
Alkalinity (CaCO ₃)*, mg/l					

^{*}TPDES permits only

†TLAP permits only

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

Pollutant	Average	Max	No. of	Sample	Sample
Ponutant	Conc.	Conc.	Samples	Type	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>TBD</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

follow	ing list. Check all that apply.				
\boxtimes	Permitted landfill				
	Permitted or Registered land application site for beneficial use				
	☐ Land application for beneficial use authorized in the wastewater perm				
	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.				
	Other: Click here to enter text				
В. 3	Sludge disposal site				
Dispos	sal site name: <u>City of Livingston WWTP</u>				
TCEQ]	permit or registration number:				
County	y where disposal site is located: <u>Polk</u>				
C. :	Sludge transportation method				
Metho	d of transportation (truck, train, pipe, other): <u>Truck</u>				
Name	of the hauler: <u>Wastewater Transport Services</u>				
Hauler	registration number: <u>24343</u>				
Sludge	is transported as a:				
]	Liquid $oxtimes$ semi-liquid $oxtimes$ semi-solid $oxtimes$ solid $oxtimes$				

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

Does the existing permit include authorization sludge for beneficial use? Yes No	for land appl	lication of sewage
If yes, are you requesting to continue this authorships for beneficial use? Yes □ No □	orization to l	and apply sewage
If yes, is the completed Application for Permit Sewage Sludge (TCEQ Form No. 10451) attached the instructions for details)? Yes No		
B. Sludge processing authorization		
Does the existing permit include authorization	for any of th	e 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 continue this authorization, is the completed Description: Sewage Sludge Technical Report of attached to this permit application? Yes □ No □	omestic Was	tewater Permit
Section 11. Sewage Sludge Lagoons	(Instructio	ns Page 61)
Does this facility include sewage sludge lago	oons?	
Yes □ No ⊠		
If yes, complete the remainder of this section	n. If no, prod	ceed 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: Mick here to enter text
 USDA Natural Resources Conservation Service Soil Map:
Attachment: Click here to enter text
• Federal Emergency Management Map:
Attachment: Mick here to enter text
• 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
□ None of the above
Attachment: Mak have manuar and
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: Thek here to enter text

Potassium, mg/kg:
pH, standard units:
Ammonia Nitrogen mg/kg:
Arsenic: Click here to enter text
Cadmium: Click here to enter text
Chromium: Hick here to enter text
Copper: Click here to enter text
Lead: Click here to enter text.
Mercury:
Molybdenum: Wick here to enter text
Nickel: Mick here to enter text
Selenium: Click here to enter text
Zinc: Tick here to enter text
Total PCBs:
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:
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 $1x10^{-7}$ cm/sec? Yes \square No \square
If yes, describe the liner below. Please note that a liner is required.
LICK HERE TO EITHER TEXT

D. Site development plan

Provide a detailed description of the methods used to deposit sludge in the

lagoon(s):
Click here to enter text.
Attach the following documents to the application.
 Plan view and cross-section of the sludge lagoon(s)
Attachment: Click here to enter text.
Copy of the closure plan
Attachment: Click here to enter text.
 Copy of deed recordation for the site
Attachment: Hick have to enter text
 Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons
Attachment: Mck here to enter text
 Description of the method of controlling infiltration of groundwater and surface water from entering the site
Attachment: Make the least text
 Procedures to prevent the occurrence of nuisance conditions
Attachment: Makhare to enter text
E. Groundwater monitoring
Is groundwater monitoring currently conducted at this site, or are any wells available for groundwater monitoring, or are groundwater monitoring data otherwise available for the sludge lagoon(s)? Yes \square No \square
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: Mak here to enter text

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 \square No \boxtimes
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:
Click here to enter text
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:		
1 ICCCCITITICITC		

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:
 - o 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
 - o 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 1	Name:	<u>Erin</u>	<u>K.</u>	Ban	KS
Title: WV	VD Eng	ginee	rin	g	

Signature: Tin K Banks	
Date: 10/26/23	

DOMESTIC TECHNICAL REPORT 1.1

The following is required for new and amendment applications

Section 1. Justification for Permit (Instructions Page 66)

\mathbf{A}_{-}	Justification	οf	permit	need
/ L .	Justification	OI	permit	IICCU

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.

Proposed new residential subdivision, the Oasis of Texas, Phase 1, with no wastewater service available to the site.

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 □	No ⊠	Not Applicable \square
If yes, within th	e city limi	its of: Click here to enter text
If yes, attach co	rresponde	ence from the city.
Attachme	nt: Click h	nere to enter text.

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

Attachment:	Click here to enter tex	
rituciniti.		

2. Utility CCN areas

	CN area?	the proposed service area located inside another utility's
	Yes □	No ⊠
of	expenditures	ustification for the proposed facility and a cost analysis that includes the cost of connecting to the CCN facilities of the proposed facility or expansion.
	Attachme	nt: Click here to enter text
3. Ne	earby WWTI	Ps or collection systems
col	llection systen	mestic permitted wastewater treatment facilities or as located within a three-mile radius of the proposed
	Yes ⊠	NO L
an		ist of these facilities that includes the permittee's name ber, and an area map showing the location of these
	Attachme	nt: <u>15</u>
-		pies of your certified letters to these facilities and their concerning connection with their system.
	Attachme	nt: <u>16</u>
sys ha	stem located we ve the capacity	d domestic wastewater treatment facility or a collection within three (3) miles of the proposed facility currently to accept or is willing to expand to accept the volume roposed in this application? No
pei	rmitted waste	analysis of expenditures required to connect to a water treatment facility or collection system located ersus the cost of the proposed facility or expansion.
	Attachmer	nt: Click here to enter text.
Section	2. Organic	Loading (Instructions Page 67)
	s facility in op	
	Yes □	No ⊠

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

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

Page **22** of **80**

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	e average organic strength or BOD ₅ concentration.
Click here to enter text.	

B. Proposed organic loading

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

Table 1.1(1) - Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD ₅ Concentration (mg/l)				
Municipality						
Subdivision	0.05	300				
Trailer park - transient						
Mobile home park						
School with cafeteria						
and showers						
School with cafeteria,						

Source	Total Average Flow (MGD)	Influent BOD ₅ Concentration (mg/l)				
no showers						
Recreational park, overnight use						
Recreational park, day use						
Office building or						
factory						
Motel						
Restaurant						
Hospital						
Nursing home						
Other						
TOTAL FLOW from all	0.05					
sources						
AVERAGE BOD ₅ from all sources		300				

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:
Total Suspended Solids, mg/l:
Ammonia Nitrogen, mg/l:
Total Phosphorus, mg/l:
Dissolved Oxygen, mg/l:

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: 17

Section 5. Facility Site (Instructions Page 68)

A. 100-year floodplain Will the proposed facilities be located above the 100-year frequency flood level? Yes ⊠ No □ **If no.** describe measures used to protect the facility during a flood event. Include a site map showing the location of the treatment plant within the 100-year frequency flood level. If applicable, provide the size and types of protective structures. Provide the source(s) used to determine 100-year frequency flood plain. 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

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

A. Beneficial use authorization

Attach a wind rose. **Attachment**: 18

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

Yes □ No ⊠

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

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 (TCEO Form No. 10056).

Attachment:

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

Attach a solids management plan to the application.

Attachment: 19

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: Mick here to enter text.
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).
Click here to enter text.

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).
Click here to enter text.
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:
A. Receiving water type
Identify the appropriate description of the receiving waters.
□ Stream
☐ Freshwater Swamp or Marsh
Treshwater swamp or marsh
□ Lake or Pond
Surface area, in acres:
Average depth of the entire water body, in feet:
text
Average depth of water body within a 500-foot radius of discharge
point, in feet:
Man-made Channel or Ditch

□ Oper	n Bay
□ Tida	Stream, Bayou, or Marsh
□ Othe	r, specify: Mak here to enter text.
B. Flow cl	naracteristics
following. For characterizes characterize t	tan-made channel or ditch was checked above, provide the rexisting discharges, check one of the following that best the area <i>upstream</i> of the discharge. For new discharges, the area <i>downstream</i> of the discharge (check one). The training most years
	mittent with Perennial Pools - enduring pools with sufficient tat to maintain significant aquatic life uses
□ Perei	nnial - normally flowing
new_discharge	thod used to characterize the area upstream (or downstream for ers). If flow records
□ Histo	orical observation by adjacent landowners
⊠ Pers	onal observation
□ Othe	r, specify:
C. Downs	tream perennial confluences
List the name	s of all perennial streams that join the receiving water within ownstream of the discharge point.
D. Downs	tream characteristics
the discharge	ing water characteristics change within three miles downstream of (e.g., natural or man-made dams, ponds, reservoirs, etc.)? Ses \boxtimes No \square
If yes, discus	s how.

<u>Intern</u>	nittent stream/swale		
E. N	Normal dry weather characte	eristi	cs
conditi		wate	r body during normal dry weather
<u>Dry</u>			
Date ar	nd time of observation: <u>08/23</u>	3	
Was the	e water body influenced by s	torm	water runoff during observations?
	Yes ⊠ No □		
	n 5. General Characteris Page 74)	stics	of the Waterbody (Instructions
A. U	J pstream influences		
			m of the discharge or proposed ollowing? Check all that apply.
	Oil field activities		Urban runoff
	Upstream discharges	\boxtimes	Agricultural runoff
	Septic tanks		Other(s), specify
tex			
B. V	Vaterbody uses		
Observ	ed or evidences of the follow	ing u	ises. Check all that apply.
\boxtimes	Livestock watering		Contact recreation
	Irrigation withdrawal		Non-contact recreation
	Fishing		Navigation

	Domestic water supply		Industrial water supply					
	Park activities		Other(s), specify					
text								
C. V	Vaterbody aesthetics							
	eck one of the following that eiving water and the surroun		describes the aesthetics of the area.					
	Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional							
	•		e vegetation; some development dwellings); water clarity discolored					
	Common Setting: not offen be colored or turbid	sive;	developed but uncluttered; water may					
	Offensive: stream does not developed; dumping areas;		nce aesthetics; cluttered; highly er discolored					

PERMIT PAYMENT SUBMITTAL FORM

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

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

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

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality

Financial Administration Division

Cashier's Office, MC-214

P.O. Box 13088

Austin. Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality

Financial Administration Division

Cashier's Office, MC-214 12100 Park 35 Circle

Austin, Texas 78753

Fee Code: WQP Waste Permit No:

1. Check or Money Order Number: 4240

2. Check or Money Order Amount: \$550.00

3. Date of Check or Money Order: 10/25/23

4. Name on Check or Money Order: WWD Engineering

5. APPLICATION INFORMATION

Name of Project or Site: The Oasis of Texas

Physical Address of Project or Site: 14625 US Hwy 59 N, Moscow, TX 75960

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

Staple Check or Money Order in This Space

ATTACHMENT 1 PERMIT JUSTIFICATION



The owner is intending to develop this Phase 1 of the Oasis of Texas Residential Development with up to 250 homes over a period of 3 years. There is currently no wastewater service available to the site. The owner requested wastewater service from Moscow Water Supply, however, they declined to provide service to the site. The site is not located within any municipality or sewer provider's CCN. The owner has elected to construct a privately owned wastewater treatment plant (WWTP) to process 50,000 gallons per day and discharge into an unnamed intermittent stream (swale) on site.



ATTACHMENT 2 CORE DATA FORM





TCEQ Core Data Form

TCEQ Use Only	

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)													
New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)													
Renewal (Core Data Form should be submitted with the renewal form) Other 2. Customer Reference Number (if issued) Follow this link to search 3. Regulated Entity Reference Number (if issued)								:: :					
Z. Customei	Referenc	e Number (<i>IT ISS</i>	suea)	Follow this link to search for CN or RN numbers in		1011	s. Reg	ulate	a Entity	Reference	e Number (i	it issuea)	
CN						egistry**	<u> </u>	RN					
SECTION II: Customer Information													
4. General C	ustomer l	nformation	5. Effective	Date fo	or Cus	stomer	Inform	ation	Upda	tes (mn	n/dd/yyyy)		
New Cus	tomer		\	Jpdate 1	to Cus	stomer I	nforma	tion			Change in	Regulated E	Entity Ownership
		ne (Verifiable wit											
			-	-				-				rrent and	active with the
Texas Sec	retary of	State (SOS)	or Texas C	omptr	oller	of Pu	blic A	ccou	ınts	(CPA)	•		
6. Customer	Legal Nar	ne (If an individua	l, print last name	e first: eg	g: Doe,	John)		<u>If r</u>	iew C	ustomer	, enter previ	ious Custome	er below:
The oasis	of Texa	s, LP											
7. TX SOS/C	PA Filing	Number	8. TX State	Tax ID	(11 digit	ts)		9.	Fede	ral Tax	ID (9 digits)	10. DUN	S Number (if applicable)
08030961	86		32068130	6665				83	3-16	38945			
11. Type of 0	Customer:	☐ Corporati	ion			Individu	ıal		Pa	artnersh	ip: 🗌 Gener	ral 🛭 Limited	
		County 🔲 Federal 🗆	☐ State ☐ Other			Sole Pr	oprieto	rship		Other	:		
12. Number	of Employ ☐ 21-100	ees 101-250	251-500		501 on	nd highe	\r	13		pender	ntly Owned	l and Opera	ited?
		pposed or Actual) -								esa chac		following	
Owner	Titolo (i it	Operation				wner &			11. 1 100	200 01100	K ONC OF THE	Tollowing	
Occupation	nal Licens		nsible Party			oluntary	•		olican	t [Other:		
	PO Bo	x 337											
15. Mailing													
Address:	City	Moscow		St	ate	TX		ZIP	759	060		ZIP + 4	
16. Country		formation (if outsi	ide USA)				17. E-I	Mail A	ddre	SS (if app	licable)		l
		(gmai	,		
18. Telephor	ne Number	•		19. Ex	tensio	on or C						r (if applicat	ble)
(281) 660-6862							() -						
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 Information													
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.)													
The Oasis of Texas													

23. Street Address of	14625 US Hwy 59 North										
the Regulated Entity:											
(No PO Boxes)	City	Moscow	State	TX	ZIP	75960		ZIP + 4			
24. County	Polk	<u> </u>	L	1	1			1			
	1	Enter Physical	Location Descrip	tion if no st	reet addre	ss is provid	ed.				
25. Description to Physical Location:											
26. Nearest City						State		Ne	arest ZIP Code		
Livingston						TX					
27. Latitude (N) In Decir	. Latitude (N) In Decimal:				Longitude (W) In Decimal:		mal:				
Degrees	Minutes	•	Seconds	Degr	ees	s Minutes			Seconds		
30		53	34N		-94	-94		50 15W			
29. Primary SIC Code (4	digits) 30). Secondary Sl	C Code (4 digits)	31. Prima (5 or 6 digi	ary NAICS ts)	Code	32. Secondary NAICS Code (5 or 6 digits)				
6552				237210)						
33. What is the Primary	Business	of this entity?	(Do not repeat the SI	C or NAICS de	scription.)						
Real Estate Develo	pment										
34. Mailing Address:	The Oasis of Texas										
			P	PO Box 337							
	City	Moscov	State	TX	ZIP	759	960	ZIP + 4			
35. E-Mail Address	:	<u>'</u>	-	wjack	dillon@gn	nail.com		•	-		
36. Telephone Number			37. Extensi	37. Extension or Code			38. Fax Number (if applicable)				
(281) 660-6862				() -			
9. TCEQ Programs and II orm. See the Core Data Form				ermits/registra	ation number	rs that will be	affected b	y the update	s submitted on this		
☐ Dam Safety	·		☐ Edwards Aquifer		☐ Emissions Inventory Air			☐ Industrial Hazardous Waste			
Municipal Solid Waste	al Solid Waste New Source Review A		OSSF		Petro	Petroleum Storage Tank		PWS			
Sludge	Storm Water		☐ Title V Air		Tires			Used Oil			
☐ Voluntary Cleanup ☐ Waste Water		te Water	☐ Wastewater Agriculture		☐ Water Rights			Other:			
SECTION IV: Pre	eparer l	<u>Informatio</u>	<u>n</u>								
40. Name: Jack Dillon	on			41. Title: President							
42. Telephone Number	43. Ext./Co	ode 44. F	ax Number	45. E-N	lail Addres	SS					
(281) 660-6862) -	wjack	wjackdillon@gmail.com						
SECTION V: Aut	thorized	d Signatur	<u>.</u>								
ZCIIOI V. MUI	VI 12C	- vigitatul (=								

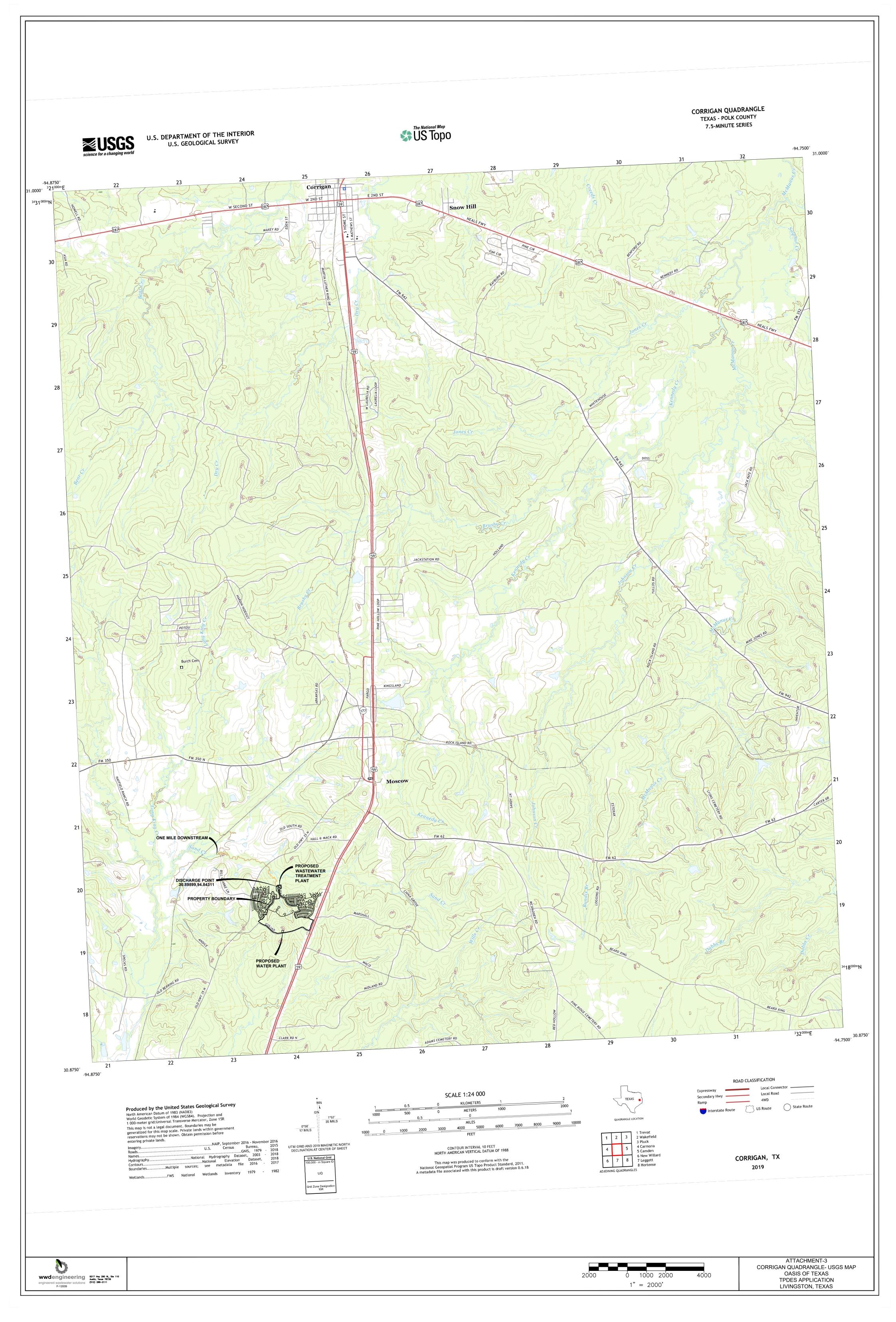
46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified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

Company:	WWD Engineering	Job Title:	President	President			
Name (In Print):	Erin K Banks, PE	Phone:	(512) 288- 2111				
Signature:	Trin K Banks			Date:	8/23/23		

Page 2 of 2 TCEQ-10400 (02/21)

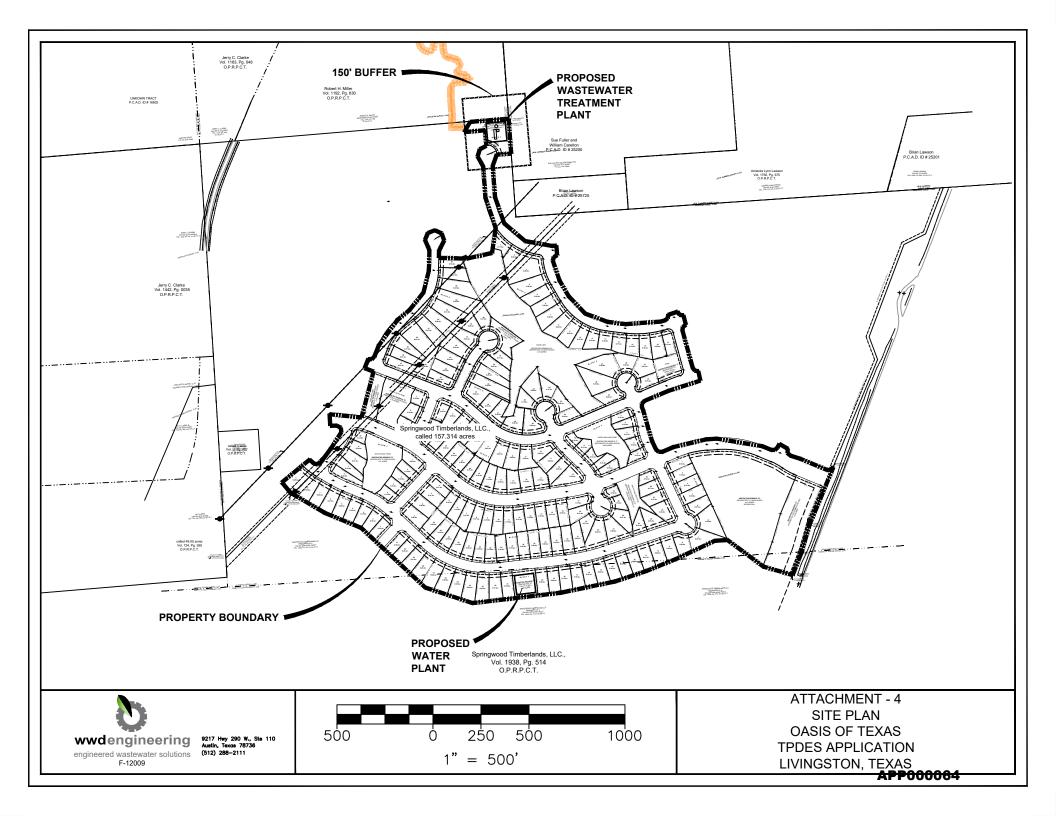
ATTACHMENT 3 USGS MAP





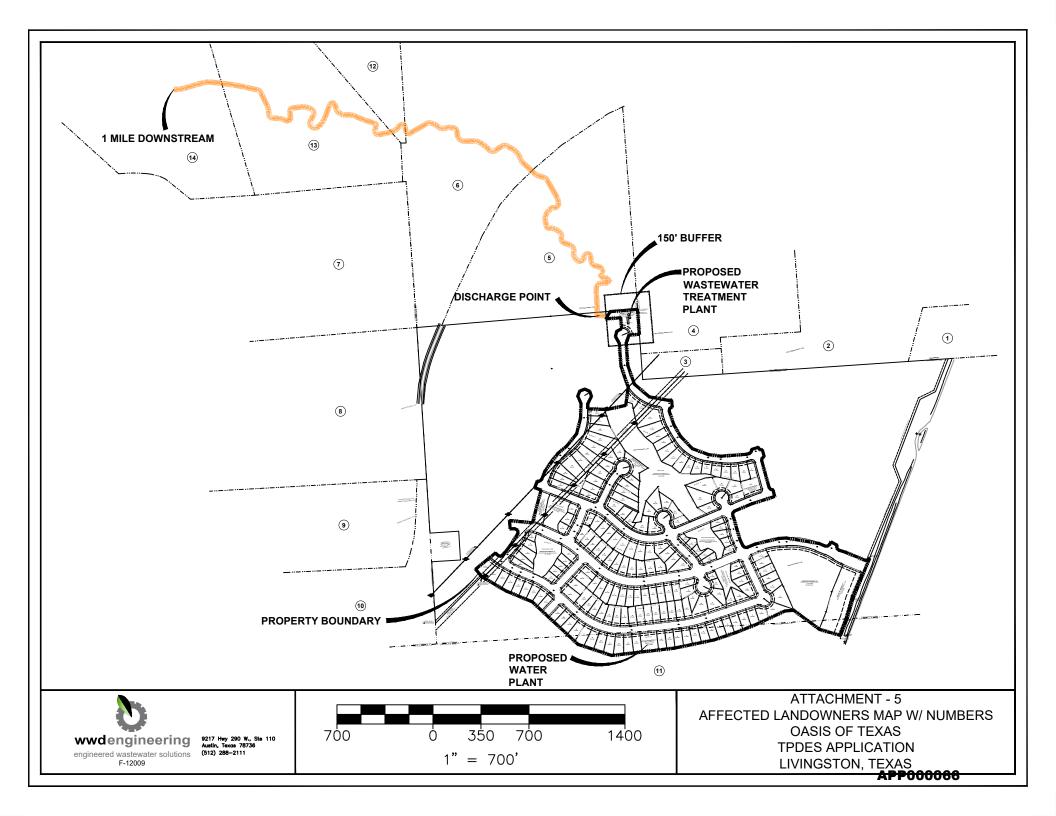
ATTACHMENT 4 SITE PLAN





ATTACHMENT 5 ADJACENT LANDOWNER MAP





ATTACHMENT 6 ADJACENT LANDOWNER LIST AND LABELS



1 Brian Lawson 3084 Hwy 287 West Corrigan TX 75939 2 Amanda Lynn Jones Lawson 3084 Hwy 287 West Corrigan TX 75939 3 Brian Lawson 3084 Hwy 287 West Corrigan TX 75939

4 Sue Fuller & William Carleton 1531 Ash Georgetown TX 78626 5 Robert H Miller 3300 Cherry Ln Austin TX 78703 6 Jerry C Clarke PO Box 150706 Lufkin TX 75915

7 N/A N/A N/A N/A N/A 8 Jerry C Clarke PO Box 150706 Lufkin TX 75915 9 N/A N/A N/A N/A N/A

10 N/A N/A N/A N/A N/A 11 Oak Mountian Timberco 31 Inverness Center Pkwy Ste 200 Bermingham AL 35242 12 Jerry C Clarke PO Box 150706 Lufkin TX 75915

13 Jerry C Clarke PO Box 150706 Lufkin TX 75915 14 Jerry C Clarke PO Box 150706 Lufkin TX 75915

ATTACHMENT 7 PHOTOS





PHOTO 1 – Discharge Point Looking Upstream



PHOTO 2 – Discharge Point Looking Downstream



PHOTO 3 – WWTP Site from North

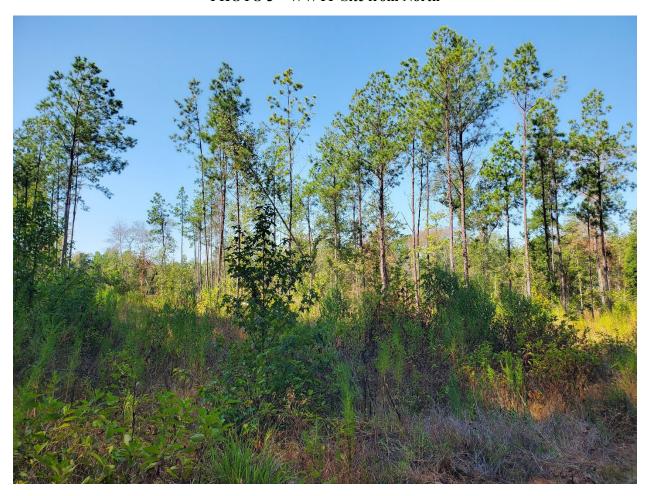


PHOTO 4 – WWTP Site from East



PHOTO 5 – WWTP Site from West

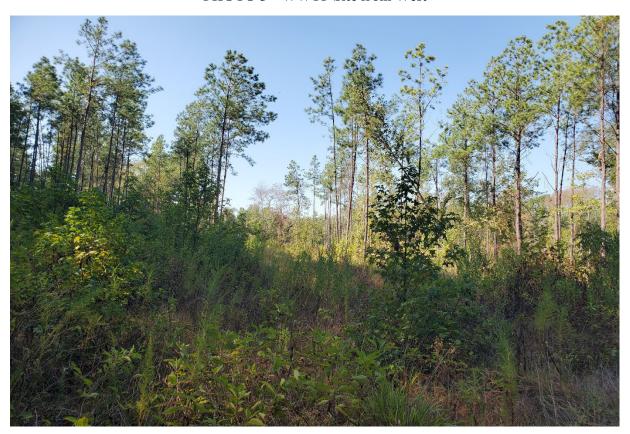
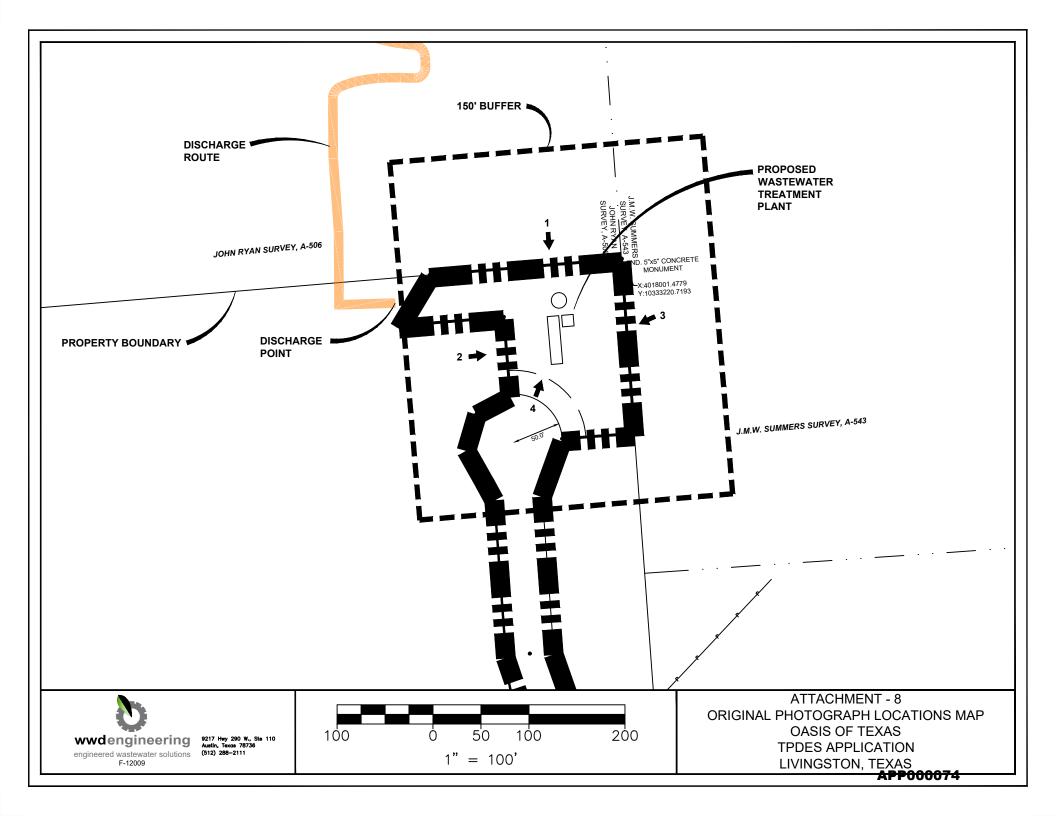


PHOTO 6 – WWTP Site from South

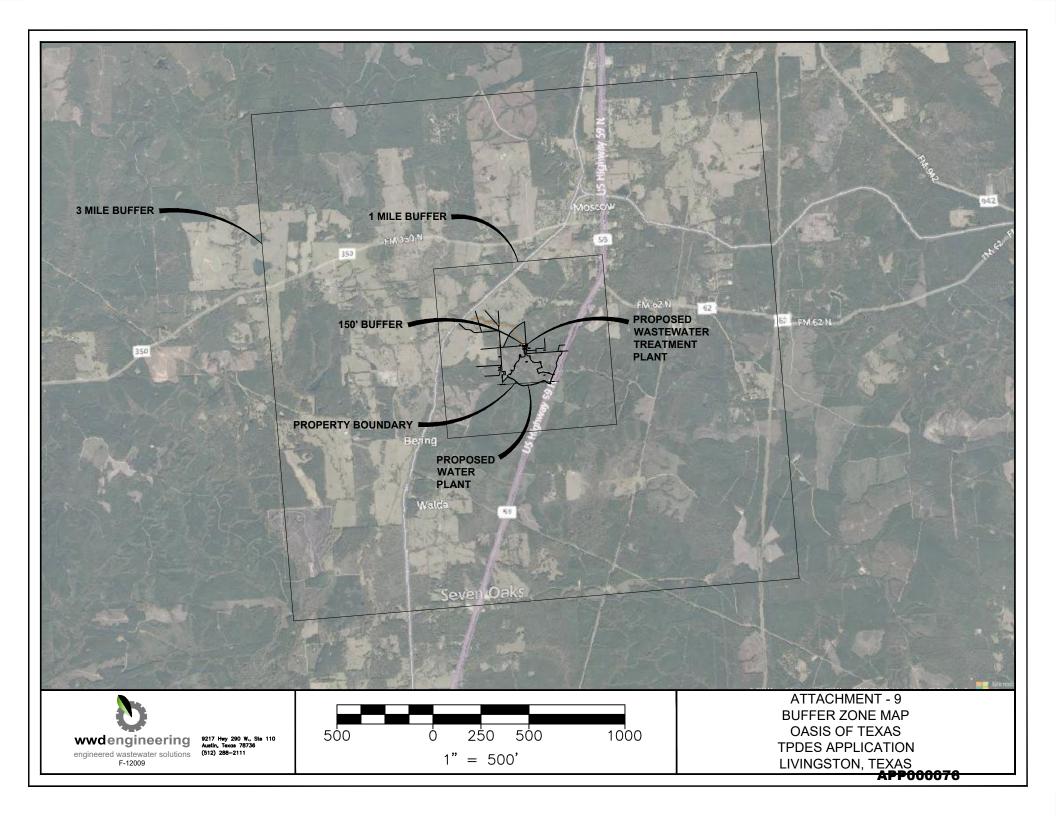
ATTACHMENT 8 PHOTOGRAPH LOCATION MAP





ATTACHMENT 9 BUFFER ZONE MAP





ATTACHMENT 10 TREATMENT PROCESS DESCRIPTION



PROCESS DESCRIPTION:

The proposed wastewater treatment facility shall be designed to employ the activated sludge process with disinfection. Raw sewage will be conveyed into the preliminary treatment system consisting of a manual screen to remove any large solids that may be detrimental to the biological process and/or the mechanical equipment employed therein. From the screening process, screened wastewater will then be conveyed to the aerobic reactor, which will be designed to operate in the conventional activated sludge mode. Mixed liquor from the aerobic reactor shall flow by gravity into a mechanical final clarifier, where solids separation will take place. From the clarifier, the clarified effluent shall enter a chlorine contact chamber for disinfection prior to storage and discharge.

The settled sludge from the clarifier is conveyed back to the aerobic reactor as return activated sludge, as well as conveyed to an aerobic digester as waste activated sludge. Digested sludge is wet hauled for disposal.



ATTACHMENT 11 TREATMENT UNIT SIZES



WWTP Unit Descriptions and Dimensions

50,000 gpd

1 Digester 12 ft (W) x 12 ft (H) x 20 ft (L) = $2,520 \text{ ft}^3$

1 Aeration Basin 12 ft (W) x 12 ft (H) x 30 ft (L) = $3,780 \text{ ft}^3$

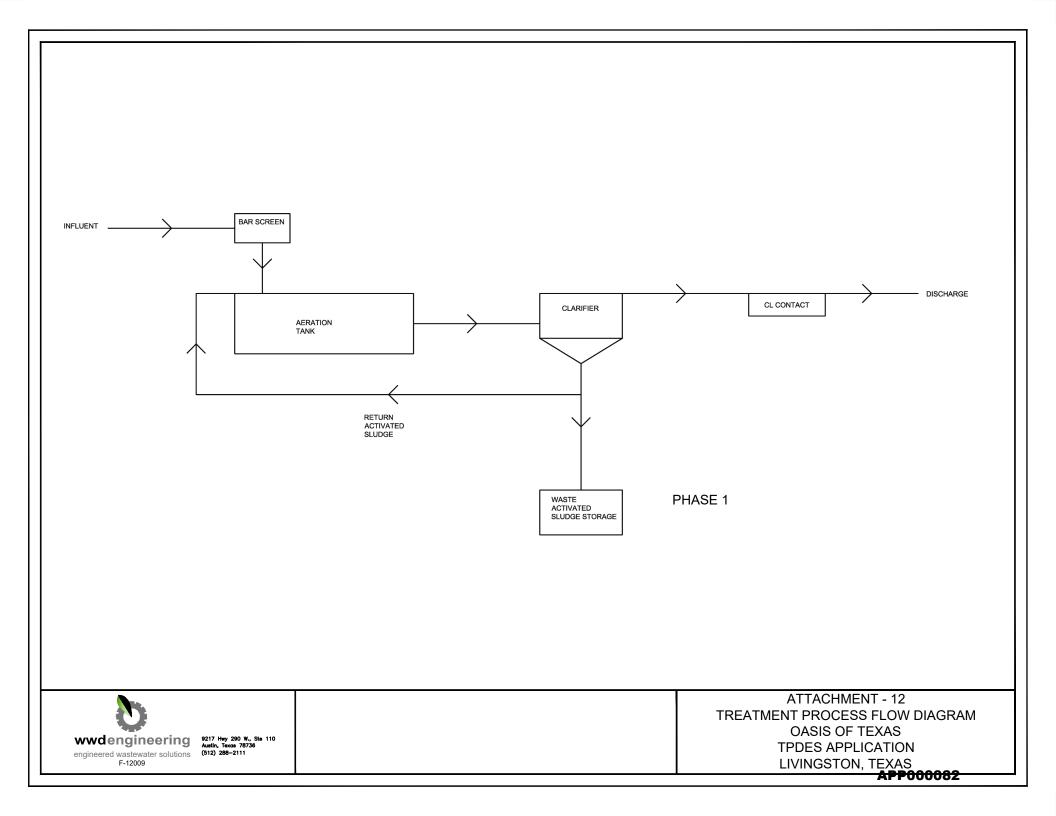
1 Chlorine Contact 12 ft (W) x 5 ft (H) x 12 ft (L) = 720 ft^3

1 Clarifier 16 ft (Dia) x 12.0 ft (H) = $2,010.6 \text{ ft}^3$

Note: D – depth, W – width, L – length, Dia - Diameter

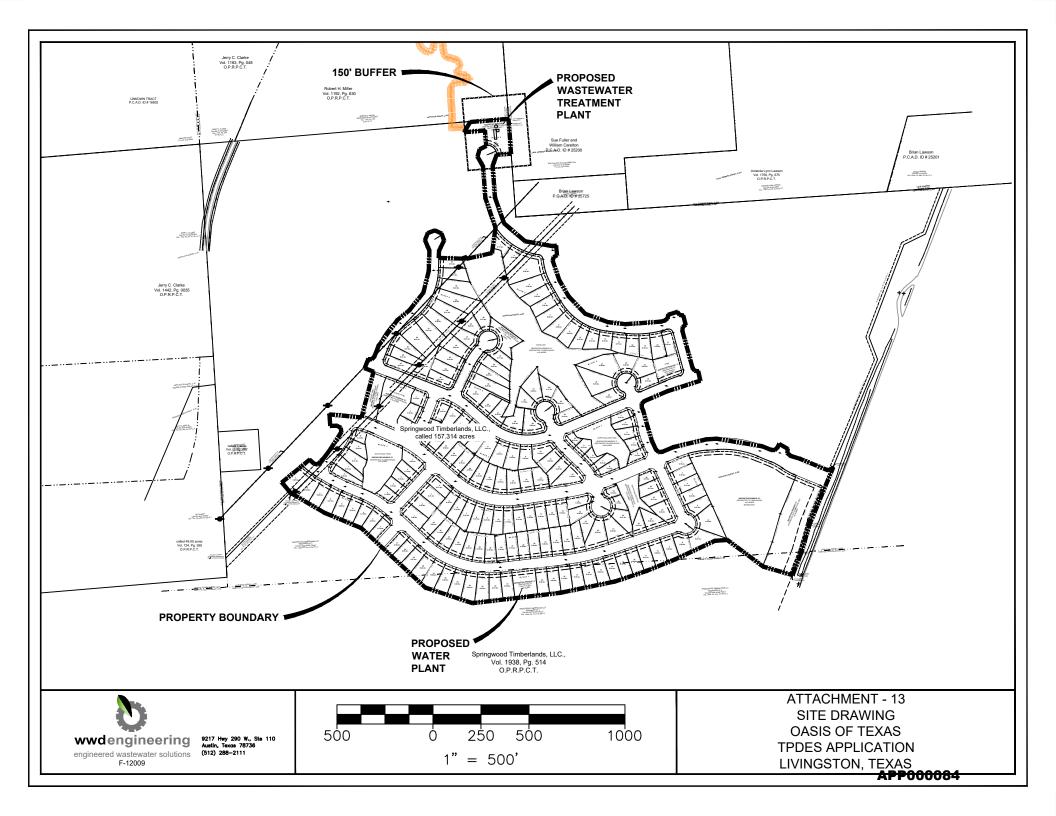
ATTACHMENT 12 TREATMENT PROCESS FLOW DIAGRAM





ATTACHEMNT 13 SITE DRAWING





ATTACHMENT 14 JUSTIFICATION FOR PROPOSED FACILITY

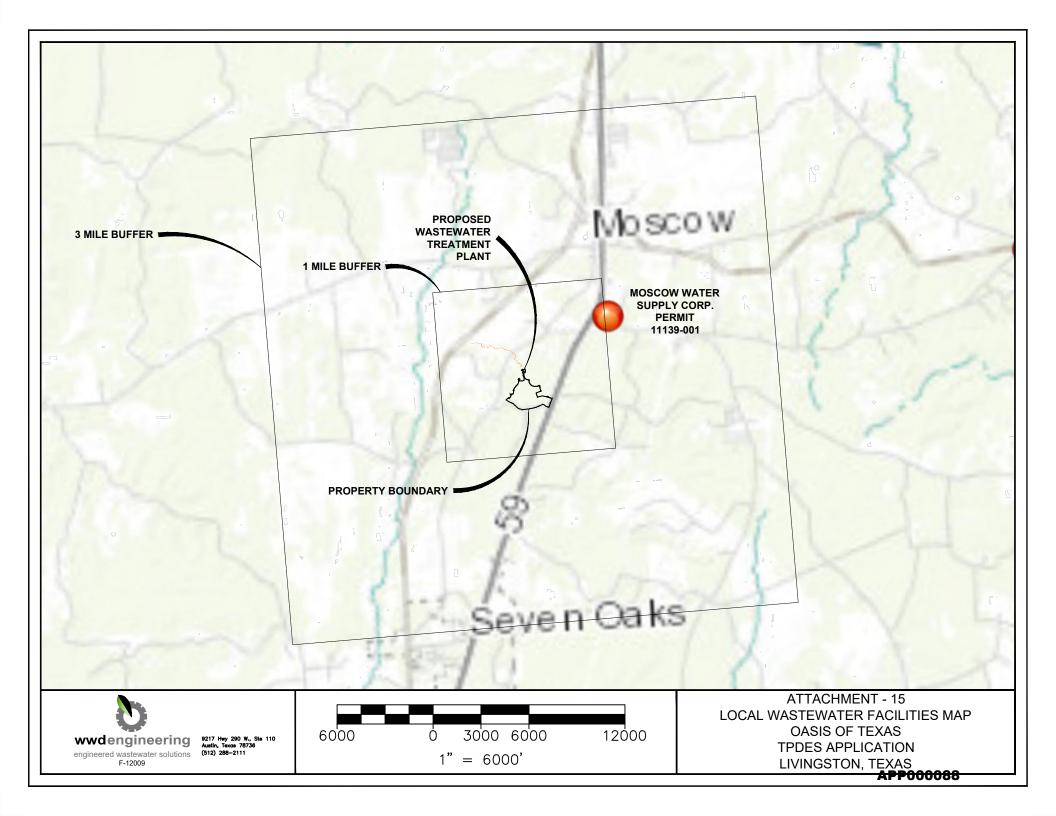


The owner is intending to develop this Phase 1 of the Oasis of Texas Residential Development with up to 250 homes over a period of 3 years. There is currently no wastewater service available to the site. The owner requested wastewater service from Moscow Water Supply, however, they declined to provide service to the site. The site is not located within any municipality or sewer provider's CCN. The owner has elected to construct a privately owned wastewater treatment plant (WWTP) to process 50,000 gallons per day and discharge into an unnamed intermittent stream/swale on site.



ATTACHEMNT 15 WWTP WITHIN 3 MILES





ATTACHMENT 14 LETTERS TO LOCAL WWTPs



Moscow Water Supply Corporation

22653 FM 350 North

P.O. Box 250

Moscow, Texas 75960

936-398-4966 - office

936-873-8966 - fax

moscowwater@yahoo.com

September 20, 2023

To Whom it May Concern:

The Moscow Water Supply Board of Directors voted in a past meeting (approximately 2019) that MWS would not supply the water in the future to "The Oasis" subdivision that would be built south of Moscow. The current board members agree with the decision made by the past board members.

Sincerely,

James Toler, President

Mike Parrish, Sec/Tres

William Glass

Amaia Aab

J.J. Sedtal

ATTACHMENT 17 DESIGN CALCULATIONS





Permit Package for Phases I

Project Name: The Oasis of Texas

Project Location: Mosco, TX

WWTP: 50,000 GPD

Company Name: WWD Engineering

Date: Sep 25, 2023

Submitted By:
John Barry
Director, Utilities BD
(520) 591-0232
john.barry@waterfleet.com

Waterfleet.com

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Overview

WaterFleet shall provide one complete mixed activated sludge Wastewater Treatment Plant (WWTP) ready for operation in accordance with the requirements as outlined in the Basis of Design below. The complete system shall include all necessary equipment required for a fully operational WWTP in accordance with current 217 design criteria.

Basis Of Design

Parameters	Unit	Influent	Projected
			Effluent
Average Daily Flow Rate	GPD	50,000	
Peak Hourly (2-hr) Flow Rate	GPD	200,000	
Influent Temp	°C	25-35	
Biochemical Oxygen Demand - BOD5	mg/L	300	10
Total Suspended Solids - TSS	mg/L	300	15
Total Nitrogen - TN	mg/L	65	3
Ammonia – NH3	mg/L	45	
Total Phosphorous - TP	mg/L	9	
Alkalinity	mg/L	400	
рН		6.5-8.5	

Permit Package

- 1. Plant Description
- 2. Process Narrative
- 3. Layout Drawing
- 4. Design Calculations



1. Plant Description:

The Proposed CMAS System will consist of the following tankage and equipment sized for each phase of this project.

Sludge Holding Chamber

1	Sludge holding chamber (Air supplied from main blower motor)
1	Supernatant decant assembly w/ swivel pipe
SET	2" Coarse bubble diffusers
	Combination Chamber Design: 12'x12'x50'

Aeration Tank

1	Manual bar screen
1	Aeration chamber
3	3 Regenative Blower
1	Air manifold system w/ diffuser drop assemblies
SET	2" Coarse bubble air diffusers
1	CP-1 Electrical control console enclosed in NEMA 4X Housing
	Combination Chamber Design: 12'x12'x50'

Clarifier Chamber

1	Circular, mechanical clarifier chamber
1	Sludge return assembly, w/ mechanical scraping arm
1	Scum return assembly, w/ mechanical raking arm
1	Clarifier mechanical drive unit
	Chamber size: 12'H x 16'D

Disinfection

1	Chlorine contact chamber
1	Chlorinator
1	Chart Recorder
1	Flow Meter
	Chamber size: 12'L x 12'W x 5"H

Service Walkway and Handrails

1	Non-skid galvanized walkway grating and access stairway
1	1 1/4in Walkway / stairway handrail assembly w/ Kee Safety Klamps

Corrosion Prevention

1	Interior surface sandblast – See spec
1	Interior surface coating – See spec
1	Exterior surface sandblast – See spec
1	Exterior surface coating – See spec
1	Schedule 40 piping coating – See spec



2. Process Narrative

The proposed wastewater treatment facility shall be designed to employ the activated sludge process with disinfection. Raw sewage will be conveyed into the preliminary treatment system consisting of a manual screen to remove any large solids that may be detrimental to the biological process and/or the mechanical equipment employed therein. From the screening process, screened wastewater will then be conveyed to the aerobic reactor, which will be designed to operate in the conventional activated sludge mode. Mixed liquor from the aerobic reactor shall flow by gravity into a mechanical final clarifier, where solids separation will take place. From the clarifier, the clarified effluent shall enter a chlorine contact chamber for disinfection prior to storage and discharge.

The settled sludge from the clarifier is conveyed back to the aerobic reactor as return activated sludge, as well as conveyed to an aerobic digester as waste activated sludge. Digested sludge is wet hauled for disposal.



3. Layout Drawing

Combintation
Tank 12'x12' x 50'

Clarifier Chamber 12'x16' Dia

Chlorine Contact Tank 12'x12'x5'



The Oasis Of Texas Phase i

Footprint

DRAWN BY
DESIGNED BY
CHECKED BY
APPROVED BY



4. Design Calculations

DESIGN BASIS CUSTOMER: Waterfleet PROJECT NAME: The Oasis of Texas PROJECT TYPE: **WWTP** PLANT TYPE: MODULAR - Standard QUOTE #: 0 DATE: 9/26/2023 PROVIDED SPECS: FLOW 50.000 GPD BOD 300 MG/L BOD 300 MG/L NH3 45 MG/L PEAK Q REQ'D EFFLUENT 10 BOD **SECONDARY 15 TSS SECONDARY** 3 NH3 **PROJECT PARAMETERS:** *ALL PARAMETERS BASED ON TNRCC 217 RULE FOR C. MIX WITH NITRIFICATION* LBS BOD 125.1 CFT AERATION 3.6 1000/CFT AERATION 3.574.3 TOTAL CFT AERATION 26.735.7 DETENTION TIME AERATION (DAYS) 0.5 **AERATION VOLUME:** LOADING 35 LBS/1000 CU FT VOLUME (LBS BOD / LOADING) 3,574 CU FT **DIGESTER VOLUME:** LOADING 20 **VOLUME (LBS BOD X LOADING)** 2,502 CU FT **CLARIFIER MINIMUMS** GPD@ PEAK 1,200 Surface Loading Per Sq/Ft TCEQ rule 217.15(c)(1) GPD@ ADF 300 Surface Loading Per Sq/Ft HRS DETENTION @ PEAK 1.8 TCEQ rule 217.15(c)(1) **SWD** 10 SURFACE @ PEAK: 167 SQ FT SURFACE @ ADF: 167 SQ FT CHECK VOLUME (CU FT): 1.667 CU FT CHECK VOLUME (GALLONS): **12,467 GALLONS**

15,000 GALLONS CONTROL

167 SQ FT BASE ON VOLUME

VOLUME REQUIRED

SURFACE REQUIRED

APP000099

	CLARIFII	ER DIMENSIONS		
AREA ^0.5	14.57			
USE MINIMUM	16.00 FT			
VOLUME (CU FT):	2,011	CU FT		
VOLUME (GALLONS):	15,039	GALLONS		
DETENTION @ADF	7.2	HOURS		
	CHL	ORINE TANK		
MINUTE @ PEAK:	20	ĺ		
VOLUME (CU FT):	2,778	GALLONS		
VOLUME (GALLONS):	371	CU FT		
AERATION AREA:	SWD	WIDTH	LENGTH	LENGTH USED
, = 13 111 011 7 11 11	10.5	12.0	28.4	29
	SWD	WIDTH	LENGTH	LENGTH USED
DIGESTER AREA:	10.5	12.0	19.9	20
			_	
CHLORINE TANK AREA:	LENGTH	WIDTH	DEPTH	DEPTH USED
	12.0	12.0	2.6	5.0
OUTSIDE RING IF BULLSEYE	49.0	588.0	754.7	OD USED 31.0
DESCRIPTION:				
		BLOWER		
AERATION AIR=3,200 X LBS BOD/1440: DIGESTER AIR=30 X 1000 CU FT:		CFM CFM		
AIRLIFTS BASED ON 10 CFM EACH:		CFM		
TOTAL AIR REQUIRED	393	CFM		
Design:	0.05	Va/M3 Tract1	(Cause - ACOE //A/E	- MOD #0.
Solids Production "Normal Domestic" Wastewater	0.25	Kg/M ³ Treated	(Source: ASCE/WEF Volume #3; Page 17- "Estimating Solids Q	-20
Max allowed conc. of WAS flow:	2%	dava	3	,
Detention time Application:	40	days		
Conv multiplier	1.5	(Design BOD/204	4 ("normal" BOD conce	ntration))
Solids Production	0.37	Kg/M3 Treated		
	0.07	g, 1 oatou		

M ³ @ 0.075 MGD	189,250 189.3	l/day M3 per day
Dry Weight Solids	153	Kg/day lbs./day 40 days of dry wt. solids
	18,376	Solids to dispose allowing for 50% reduction in digestion/decanting Gallons of volume required assuming 2% concentration (Ft ³ Required)

ATTACHMENT 18 WIND ROSE

NOT AVAILABLE



ATTACHMENT 19 SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN



Sewage Sludge Solids Management Plan

	-
Allowable sludge volume	18,715 gallons
BOD5 removal influent concentration	300 mg/l
Effluent concentration	10 mg/l
Net removal	290 mg/l

1100 10110101	230 1119/1				
Solids generated		100%flow	75% flow	50% flow	25% flow
Pounds BOD5/day removed		120.93	90.6975	60.465	30.2325
Pounds of dry sludge produced*		42.3255	31.7441	21.1628	10.5814
Pounds of wet sludge produced**		2116.275	1587.21	1058.14	529.069
Gallons of wet sludge produced		253.75	190.313	126.875	63.4375
Days between sludge removal ***		73.75369 days	98.3383 days	147.507 days	295.015 days

^{*} Assuming 0.35 pounds of dry sludge produced per pound of BOD5 removed

50,000 gpd

Oasis

^{**} Assuming 2% solids

^{***} Due to variabilities in the dynamics of sludge buildup in Treatment Systems, it is porposed that this system be monitored on a weekly basis to determine the actual sludge build-up within the system. This system will be pumped upon the determination of the need for pumping as delineated by tank monitoring.

ATTACHMENT 20 PUBLIC INVOLVEMENT PLAN FORM





Public Involvement Plan Form for Permit and Registration Applications

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

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

Section 1. Preliminary Screening

New Permit or Registration Application

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

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

Section 2. Secondary Screening

Requires public notice,

Considered to have significant public interest, and

Located within any of the following geographical locations:

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

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

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

TCEQ-20960 (02-09-2023) Page 1 of 4

Section 3. Application Information

Type of Application (check all that apply):

Air Initial Federal Amendment Standard Permit Title V

Waste Industrial and Hazardous Waste Municipal Solid Waste Scrap Tire

> Radioactive Material Licensing Underground Injection Control

Water Quality

Texas Pollutant Discharge Elimination System (TPDES)

Texas Land Application Permit (TLAP)

State Only Concentrated Animal Feeding Operation (CAFO)

Water Treatment Plant Residuals Disposal Permit

Class B Biosolids Land Application Permit

Domestic Septage Land Application Registration

Water Rights New Permit

New Appropriation of Water

New or existing reservoir

Amendment to an Existing Water Right

Add a New Appropriation of Water

Add a New or Existing Reservoir

Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

TCEQ-20960 (02-09-2023) Page 2 of 4

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools. Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information. (City) (County) (Census Tract) Please indicate which of these three is the level used for gathering the following information. County Census Tract (a) Percent of people over 25 years of age who at least graduated from high school (b) Per capita income for population near the specified location (c) Percent of minority population and percent of population by race within the specified location (d) Percent of Linguistically Isolated Households by language within the specified location (e) Languages commonly spoken in area by percentage (f) Community and/or Stakeholder Groups (g) Historic public interest or involvement

Section 5. Community and Demographic Information

Section 6. Planned Public Outreach Activities

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

Yes No

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

No

If Yes, please describe.

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

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

Yes No

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

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

Publish in alternative language newspaper

Posted on Commissioner's Integrated Database Website

Mailed by TCEQ's Office of the Chief Clerk

Other (specify)

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

Yes No

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

Yes No

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

TCEQ Regional Office

TCEQ Central Office

Public Place (specify)

Section 7. Voluntary Submittal

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

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

Yes

What types of notice will be provided?

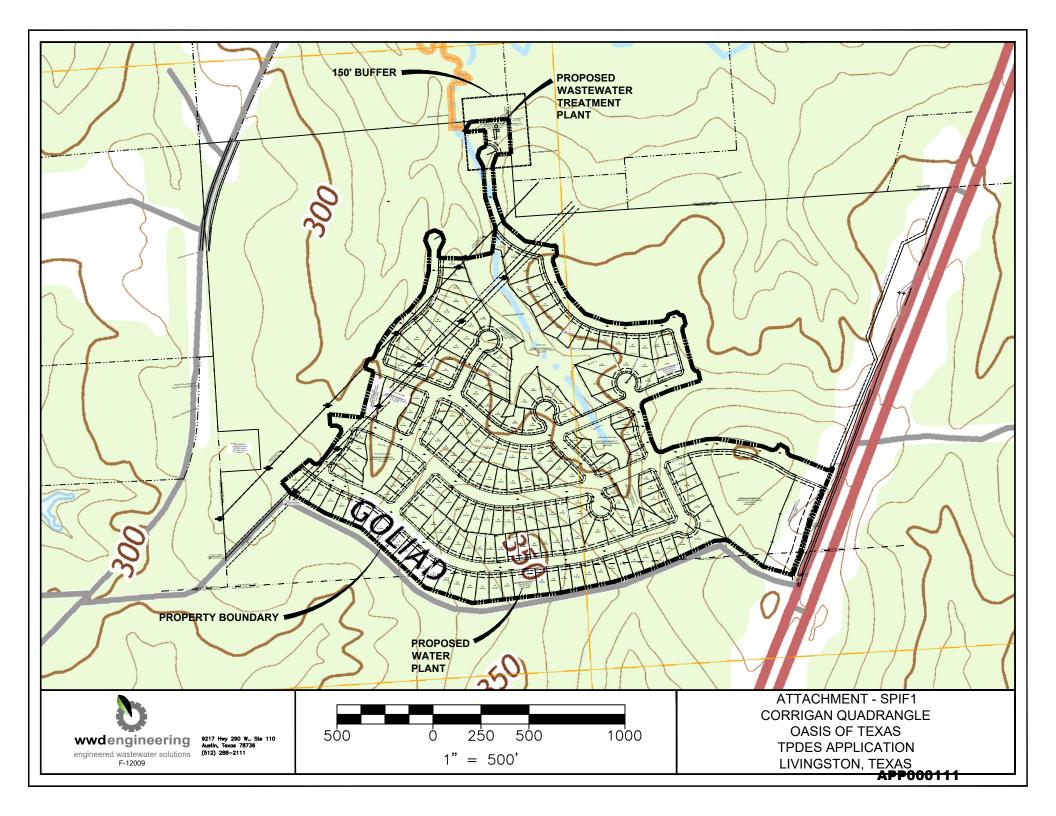
Publish in alternative language newspaper

Posted on Commissioner's Integrated Database Website

Mailed by TCEO's Office of the Chief Clerk

Other (specify)









Privacy Policy

Data Selector

See Data Values

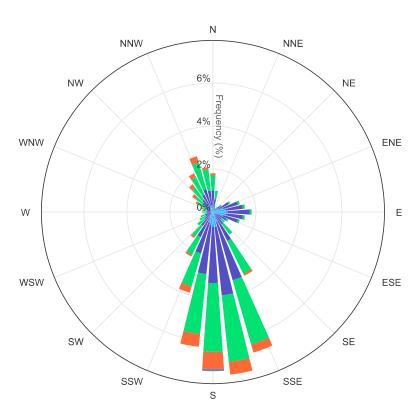
Data CSV Version

Product Description

Send Feedback

HUNTSVILLE MUNI AP (TX) Wind Rose

Feb. 1, 1997 - Apr. 1, 2024 Sub-Interval: Jan. 1 - Dec. 31, 0 - 23



Wind Speed (mph)

1.3 - 4

4 - 8

8 - 13

13 - 19

19 - 25

25 - 32

32 - 3939 - 47

47 -

Click and drag to zoom

HUNTSVILLE MUNI AP (TX) - Wind Frequency Table (percentage)

Latitude: 30.7439 Longitude: -95.5861 Elevation: 366 ft.

Element : Mean Wind

Speed

Start Date : Feb. 1, 1997 End Date : Apr. 1, 2024 # of Days : 9922 of 9922

obs : poss : 179860 of

238128

Sub Interval Windows

Start End
Date Jan. 1 Dec. 31
Hour 0 23

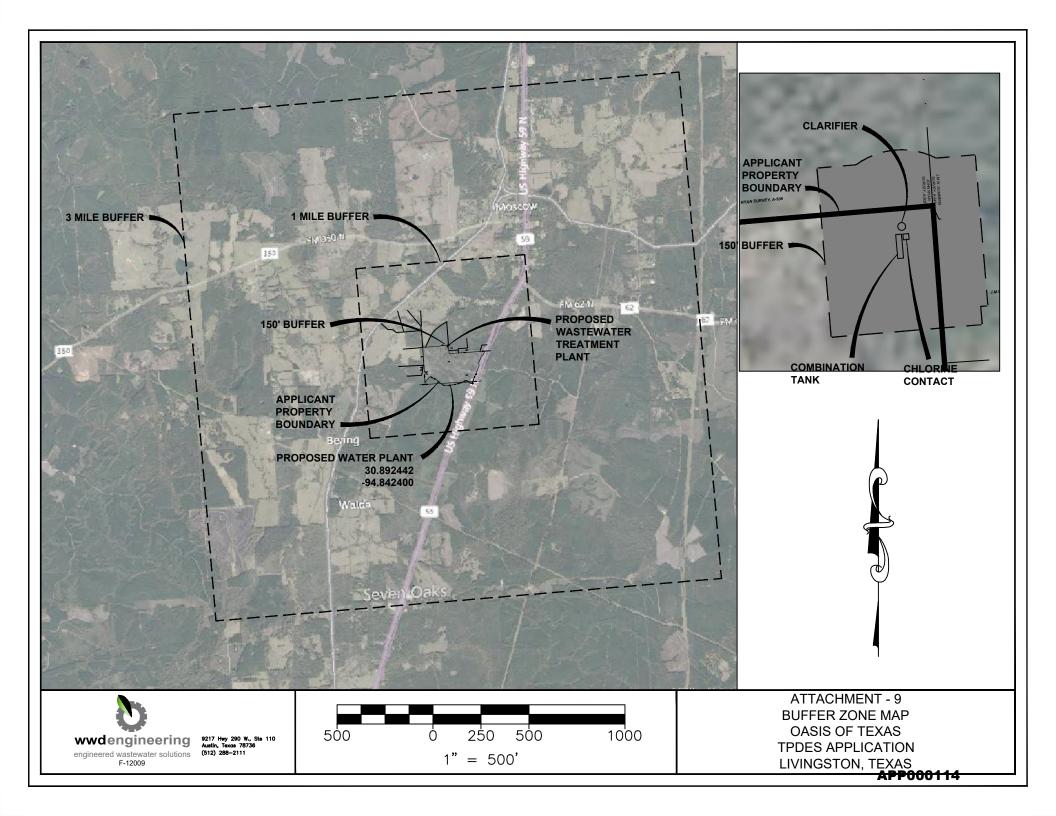
(Greater than or equal to initial interval value and Less than ending interval value.)

Range 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 Total (mph) 4-8 0.7 0.4 0.1 0.1 0.1 0.3 0.5 0.7 0.8 1.0 0.8 0.7 0.5 0.4 0.6 1.3 2.8 3.2 2.6 2.3 1.5 1.0 0.6 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.3 0.4 0.5 0.7 0.8 0.7 28.2 $47 - 0.0 \$ Total(%) 1.8 1.1 0.3 0.1 0.2 0.5 0.9 1.3 1.5 1.9 1.4 1.2 0.8 0.7 1.4 3.4 6.9 7.8 7.4 6.3 3.9 2.3 1.5 0.9 0.7 0.5 0.4 0.4 0.5 0.6 0.9 1.3 1.7 2.1 2.6 2.1 69.5 Calm 30.4 (<1.3)

Ave Speed 7.1 6.9 6.7 6.7 5.9 5.6 5.5 5.1 4.9 4.9 4.8 4.9 5.4 6.2 7.1 7.9 8.0 8.0 8.6 8.3 7.8 7.5 7.4 7.4 7.0 7.0 7.1 7.6 7.7 8.4 9.1 9.0 9.0 8.5 8.6 7.9 5.3

Midwestern Regional Climate Center cli-MATE: MRCC Application Tools Environment Generated at: 4/1/2024 3:27:56 PM EDT

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follow	ing list. Check all that apply.			
\boxtimes	Permitted landfill			
	Permitted or Registered land application site for beneficial use			
	Land application for beneficial use authorized in the wastewater 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.			
	Other:			
В.	Sludge disposal site			
Dispos	sal site name: <u>City of Livingston WWTP</u>			
TCEQ	permit or registration number: <u>WQ0010208001</u>			
Count	y where disposal site is located: <u>Polk</u>			
C.	Sludge transportation method			
Metho	d of transportation (truck, train, pipe, other): <u>Truck</u>			
Name	of the hauler: Wastewater Transport Services			
Hauler	registration number: <u>24343</u>			
Sludge	e is transported as a:			
]	Liquid $oxtimes$ semi-liquid $oxtimes$ semi-solid $oxtimes$ solid $oxtimes$			

TCEQ-10054 (06/01/2017) Domestic Wastewater Permit Application, Technical Reports Page 13 of 80

Jon Niermann, *Chairman*Emily Lindley, *Commissioner*Bobby Janecka, *Commissioner*Kelly Keel, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 3, 2023

VIA EMAIL

Ms. Erin Banks, P.E. Principal WWD Engineering 9217 Highway 290 West, Suite 100 Austin, Texas 78736

Re: Application for Proposed Permit No. WQ0016436001 (EPA I.D TX0145297)

To be Issued to The Oasis of Texas LP

CN605810373, RN111836177

Dear Ms. Banks:

We have received the application for the above-referenced permit, and it is currently under review. Your attention to the following items is requested before we can declare the application administratively complete. Please email the response to my attention.

1. The following is a portion of the Notice of Receipt of Application and Intent to Obtain a Water Quality Permit which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

APPLICATION. The Oasis of Texas LP, P.O. Box 337, Moscow, Texas 75960, has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0016436001 (EPA I.D. No. TX0145297) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 50,000 gallons per day. The domestic wastewater treatment facility will be located at 14625 U.S. Highway 59 North, Moscow, in Polk County, Texas 75960. The discharge route will be from the plant site to an unnamed ditch; thence to Sand Creek; thence to Long King Creek (discharge route – pending RWA confirmation). TCEQ received this application on October 27, 2023. The permit application will be available for viewing and copying at Livingston Municipal Library, 707 North Tyler Avenue, Livingston, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-93.1625,30.892777&level=18

Further information may also be obtained from The Oasis of Texas LP at the address stated above or by calling Mr. William Jack Dillon, President, at 281-660-6862.

Ms. Erin Banks, P.E. Page 2 November 3, 2023 Permit No. WO0016436001

New rule requirements under Title 30 Texas Administrative Code (TAC) Chapter 39 relating to public notices have been implemented. The deficiencies listed below are new items that need to be provided to meet the alternative language requirements.

2. Please use the attached Plain Language Summary (PLS) Template to provide a plain language summary in English. Please email the PLS in a <u>Microsoft Word document</u>.

Please submit the complete response, addressed to my attention by November 17, 2023. If you should have any questions, please do not hesitate to call me at (512) 239-4912.

Sincerely,

Abesha H. Michael

Applications Review and Processing Team (MC148)

Water Quality Division

Abosha Michael

Texas Commission of Environmental Quality

Enclosure(s)

Attachment 1 - Municipal/Industrial TPDES and TLAP PLS Form

Plain Language Summary (English)

Texas Pollutant Discharge Elimination System (TPDES) Permit Application WQ0016436001

The Oasis of Texas, LP (CN605810373) proposes to operate The Oasis of Texas Wastewater Treatment Plant RN 111836177, a domestic wastewater treatment facility. The facility will be located at 14625 U.S. Highway 59 North, Moscow, Polk County, Texas 75960.

This application is a new application to discharge up to 50,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3 -N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. All phases of the domestic wastewater treatment plant will consist of a complete mix activated sludge treatment plant. Treatment units consist of a bar screen, aeration tank, clarifier, sludge holding tank, and chlorine contact chamber.