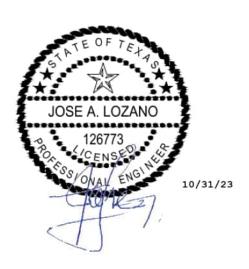


VISTAS AT SONOMA WATER POLLUTION ABATEMENT PLAN

OCTOBER 2023

MODIFICATION #1



Modification of a Previously Approved Plan Checklist

- Edwards Aquifer Application Cover Page (TCEQ-20705)
- General Information Form (TCEQ-0587)

Attachment A - Road Map

Attachment B - USGS / Edwards Recharge Zone Map

Attachment C - Project Description

Geologic Assessment Form (TCEQ-0585)

Attachment A - Geologic Assessment Table (TCEQ-0585-Table)

Attachment B - Stratigraphic Column

Attachment C - Site Geology

Attachment D - Site Geologic Map(s)

Modification of a Previously Approved Plan (TCEQ-0590)

Attachment A - Original Approval Letter and Approved Modification Letters

Attachment B - Narrative of Proposed Modification

Attachment C - Current Site Plan of the Approved Project

Application Form (include any applicable to the proposed modification):

Aboveground Storage Tank Facility Plan (TCEQ-0575)

Organized Sewage Collection System Application (TCEQ-0582)

Underground Storage Tank Facility Plan (TCEQ-0583)

Water Pollution Abatement Plan Application (TCEQ-0584)

Lift Station / Force Main System Application (TCEQ-0624)

Temporary Stormwater Section (TCEQ-0602)

Attachment A - Spill Response Actions

Attachment B - Potential Sources of Contamination

Attachment C - Sequence of Major Activities

Attachment D - Temporary Best Management Practices and Measures

Attachment E - Request to Temporarily Seal a Feature (if requested)

Attachment F - Structural Practices

Attachment G - Drainage Area Map

Attachment H - Temporary Sediment Pond(s) Plans and Calculations

Attachment I - Inspection and Maintenance for BMPs

Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices

Permanent Stormwater Section (TCEQ-0600), if necessary

Attachment A - 20% or Less Impervious Cover Declaration (if requested for multi-family, school, or small business site)

Attachment B - BMPs for Upgradient Stormwater

Attachment C - BMPs for On-site Stormwater

Attachment D - BMPs for Surface Streams

Attachment E - Request to Seal Features, if sealing a feature

Attachment F - Construction Plans

Attachment G - Inspection, Maintenance, Repair and Retrofit Plan

Attachment H - Pilot-Scale Field Testing Plan (if requested)

Attachment I - Measures for Minimizing Surface Stream Contamination

- Agent Authorization Form (TCEQ-0599), if application submitted by agent
- Application Fee Form (TCEQ-0574)
- Check Payable to the "Texas Commission on Environmental Quality"
- Core Data Form (TCEQ-10400)



October 31, 2023

Texas Commission on Environmental Quality (TCEQ) Region 13 14250 Judson Road San Antonio, Texas 78233

RE: Vistas at Sonoma

Water Pollution Abatement Plan

To Whom It May Concern:

Please find attached one (1) digital copy of the Vistas at Sonoma Water Pollution Abatement Plan (WPAP). This WPAP has been prepared in accordance with the regulations of the Texas Administrative Code (30 TAC 213) and current policies for development over the Edwards Aquifer Recharge Zone.

This Water Pollution Abatement Plan applies to an approximate 0.39-acre site within an existing single family residential subdivision. Please review the plan information for the items it is intended to address. If accepted, please provide written approval of the plan in order that construction may begin at the earliest opportunity.

Thank you for your assistance with this matter, please call our office if you have questions or require additional information.

Sincerely,

Jose Lozano, P.E. Senior Project Manager

jlozano@cudeengineers.com

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with 30 TAC 213.

Administrative Review

- 1. Edwards Aquifer applications must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.
 - To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: http://www.tceq.texas.gov/field/eapp.
- This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
- 3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
- 4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.
 - An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.
- 5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
- If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

- 1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
- A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

- clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.
- 3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied the application fee will be forfeited.
- 4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification
 application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: VISTAS AT SONOMA 2. Regulated Entity No.: RN105116677								
3. Customer Name: VISTAS AT SONOMA HOMEOWNERS ASSOCIATION INC				4. Cı	4. Customer No.: CN605658350			
5. Project Type: (Please circle/check one)	New (Modif	ication	D	Exter	sion	Exception	
6. Plan Type: (Please circle/check one)	WPAP CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Residential	Non-r	esiden	tial		8. Sit	e (acres):	0.39
9. Application Fee:	\$1,500	10. P	10. Permanent BMP(s):		s):	VEGETATED FILTER STRIPS		
11. SCS (Linear Ft.):	N/A	12. AST/UST (No. Tanks):		ıks):	N/A			
13. County:	BEXAR	14. Watershed:		HUESTA CREEK				

Application Distribution

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%2oGWCD%2omap.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region					
County:	Hays	Travis	Williamson		
Original (1 req.)	_	_	_		
Region (1 req.)		_	_		
County(ies)	_	_	_		
Groundwater Conservation District(s)	Edwards Aquifer AuthorityBarton Springs/ Edwards AquiferHays TrinityPlum Creek	Barton Springs/ Edwards Aquifer	NA		
City(ies) Jurisdiction	AustinBudaDripping SpringsKyleMountain CitySan MarcosWimberleyWoodcreek	AustinBee CavePflugervilleRollingwoodRound RockSunset ValleyWest Lake Hills	AustinCedar ParkFlorenceGeorgetownJerrellLeanderLiberty HillPflugervilleRound Rock		

San Antonio Region					
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)	_		·-	e	_
Region (1 req.)	_	_),—		,—
County(ies)	_	_	·		7—
Groundwater Conservation District(s)	X Edwards Aquifer Authority Trinity-Glen Rose	Edwards Aquifer Authority	Kinney	EAA Medina	EAA Uvalde
City(ies) Jurisdiction	Castle HillsFair Oaks RanchHelotesHill Country VillageHollywood Park XSan Antonio (SAWS)Shavano Park	Bulverde Fair Oaks Ranch Garden Ridge New Braunfels Schertz	NA	San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.		
JOSE LOZANO, P.E.		
Print Name of Customer/Authorized Agent		
Contr.	10/31/23	
Signature of Customer/Authorized Agent	Date	

FOR TCEQ INTERNAL USE ONLY			
Date(s)Reviewed:	Date Administratively Complete:		
Received From:	Correct Number of Copies:		
Received By:	Distrib	Distribution Date:	
EAPP File Number:	Compl	Complex:	
Admin. Review(s) (No.):	No. AF	No. AR Rounds:	
Delinquent Fees (Y/N):	Review	Review Time Spent:	
Lat./Long. Verified:	SOS C	SOS Customer Verification:	
Agent Authorization Complete/Notarized (Y/N):	Fee	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):	Check:	: Signed (Y/N):	
Core Data Form Incomplete Nos.:		Less than 90 days old (Y/N):	



GENERAL INFORMATION SECTION

General Information Form

Texas Commission on Environmental Quality

Print Name of Customer/Agent: Jose Lozano, P.E.

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

	. •		
Da	ate: <u>10/31/</u> 23		
Sig	gnature of Customer/Agent:		
Pı	roject Information		
1.	Regulated Entity Name: Vista at Sonoma		
2.	County: Bexar		
3.	. Stream Basin: <u>Huesta Cre</u> ek		
4.	Groundwater Conservation District (If applicable): Sa	nn Antonio River Authority	
5.	Edwards Aquifer Zone:		
	X Recharge Zone Transition Zone		
6.	Plan Type:		
	X WPAP SCS X Modification	AST UST Exception Request	

7.	Customer (Applicant):			
	Contact Person: <u>David Gonzalez</u> Entity: <u>Vistas At Sonoma Home</u> owners Association, Inc. Mailing Address: <u>8206 Sierra Hermos</u> a City, State: <u>San Antonio</u> Telephone: <u>210-695-0115</u> Email Address: <u>hoaboard@vistasatsono</u> ma.com	Zip: <u>78255</u> FAX:		
8.	Agent/Representative (If any):			
	Contact Person: Jose Lozano, P.E. Entity: M.W. Cude Engineers, L.L.C. Mailing Address: 4122 Pond Hill Road Suite 101 City, State: San Antonio, Texas Telephone: 210-681-2951 Email Address: JLozano@cudeengineers.com	Zip: <u>78231</u> FAX:		
9.	Project Location:			
	 The project site is located inside the city limits of X The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of San Antonio The project site is not located within any city's limits or ETJ. 			
10.	D. X The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation. From TCEQ's regional office, head north on Judson Road 3.0 miles to Loop 1604. Travel west on Loop 1604 15.5 miles and exit towards Kyle Seale Parkway/Hausman Road/FM 1560. Continue south on Loop 1604 access road for 1.9 miles. The site is located 0.5 miles north of the Loop 1604 and			
11.	Attachment A – Road Map. A road map showing project site is attached. The project location are the map.			
12.	X Attachment B - USGS / Edwards Recharge Zon USGS Quadrangle Map (Scale: 1" = 2000') of th The map(s) clearly show:			
	 X Project site boundaries. X USGS Quadrangle Name(s). X Boundaries of the Recharge Zone (and Trank) X Drainage path from the project site to the B 			
13.	X The TCEQ must be able to inspect the project Sufficient survey staking is provided on the pro the boundaries and alignment of the regulated features noted in the Geologic Assessment.	ject to allow TCEQ regional staff to locate		
	X Survey staking will be completed by this date:	When notified by TCEQ of site visit date		

14. X Attachment C – Project Description. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:
X Area of the site X Offsite areas X Impervious cover X Permanent BMP(s) X Proposed site use Site history Previous development Area(s) to be demolished
15. Existing project site conditions are noted below:
Existing commercial site Existing industrial site X Existing residential site Existing paved and/or unpaved roads Undeveloped (Cleared) Undeveloped (Undisturbed/Uncleared) Other:
Prohibited Activities
16. \overline{X} I am aware that the following activities are prohibited on the Recharge Zone and are no proposed for this project:
 Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
(2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
(3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;
(4) The use of sewage holding tanks as parts of organized collection systems; and
(5) New municipal solid waste landfill facilities required to meet and comply with Type standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).
(6) New municipal and industrial wastewater discharges into or adjacent to water in th state that would create additional pollutant loading.
17. $\boxed{ imes}$ I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:
(1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground

(2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

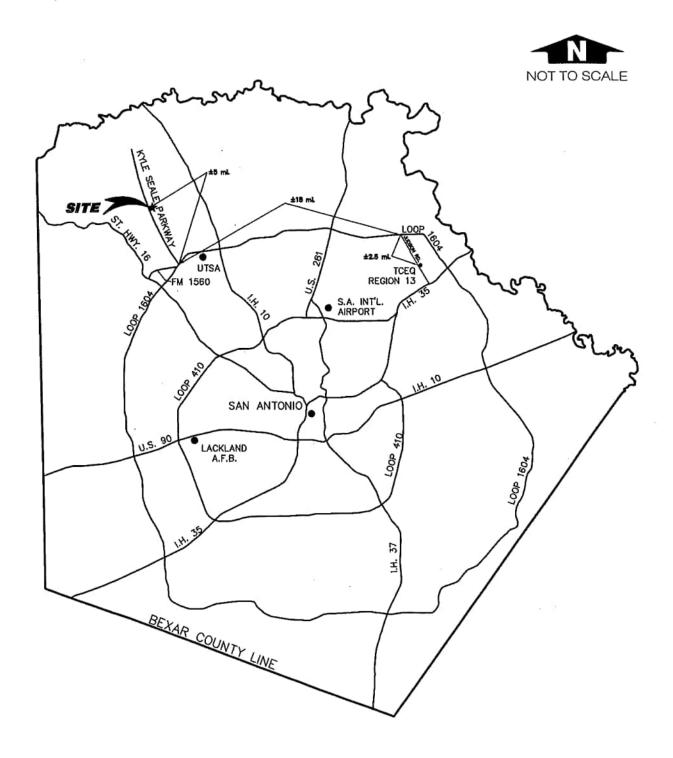
Injection Control);

(3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

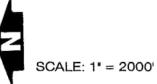
18. The	e fee for the plan(s) is based on:
	For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur. For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines. For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems. A request for an exception to any substantive portion of the regulations related to the protection of water quality. A request for an extension to a previously approved plan.
19. X	Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:
	TCEQ cashier Austin Regional Office (for projects in Hays, Travis, and Williamson Counties) San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)
20. X	Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
21. X	No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

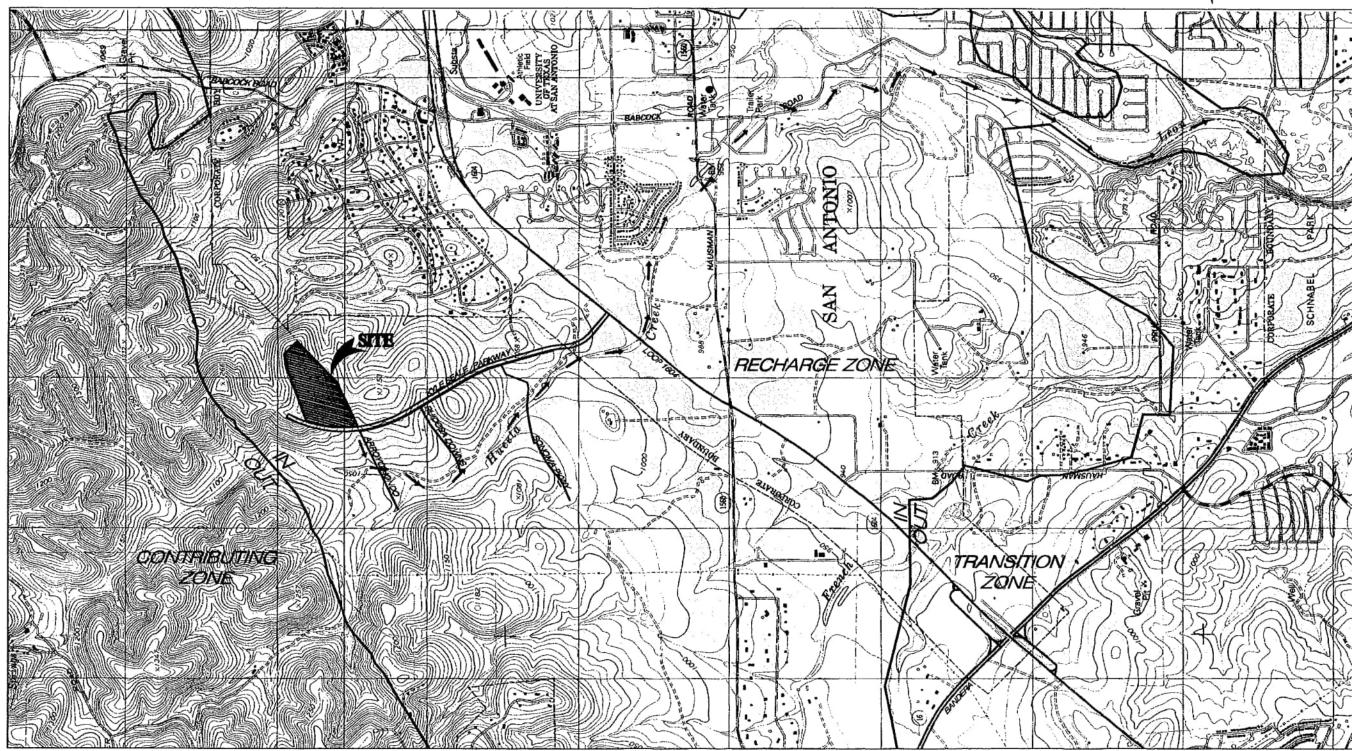
VISTAS AT SONOMA WATER POLLUTION ABATEMENT PLAN



ATTACHMENT A ROAD MAP

VISTAS AT SONOMA WATER POLLUTION ABATEMENT PLAN





HELOTES, TX QUADRANGLE

→ → DRAINAGE FLOW

USGS/EDWARDS RECHARGE ZONE MAP ATTACHMENT B

ATTACHMENT C Project Description

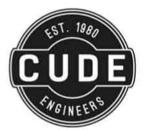
The proposed 0.39-acre development is part of an existing 36.41 acre residential subdivision. The existing subdivision currently includes roads, utilities, a water quality detention basin, two sedimentation/filtration basins, vegetated filter strips, and residential homes. A recreational sports court and additional vegetated filter strips are proposed for the 0.39-acre development.

It is anticipated that there will be no storage of regulated quantities of hazardous materials within the project limits. The project site is located outside the city limits but within the extra-territorial jurisdiction (ETJ) of the City of San Antonio in Bexar County, Texas. Potable water will be supplied by the San Antonio Water System (SAWS).

The population is estimated to be approximately 468 people. Approximately 87,750 gallons per day (peak flow) of domestic wastewater is estimated to be generated by this population. It will be disposed of by conveyance to the Leon Creek Water Recycling Center operated by the San Antonio Water System.

The overall residential development will have an impervious cover percentage of approximately 39.17% (approximately 14.26 acres).

The increase in impervious cover as a result of this development will require the use of best management practices (BMPs) to treat 80% of the increase in total suspended solids(TSS) for the site. Vegetated filter strips (VFS) have been designed in accordance with the TCEQ Technical Guidance Manual (TGM) RG-348 (2017) to serve as permanent BMPs.



GEOLOGIC ASSESSMENT SECTION

Not applicable to this project



MODIFICATION OF A PREVIOUSLY APPROVED PLAN SECTION

Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This request for a **Modification of a Previously Approved Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

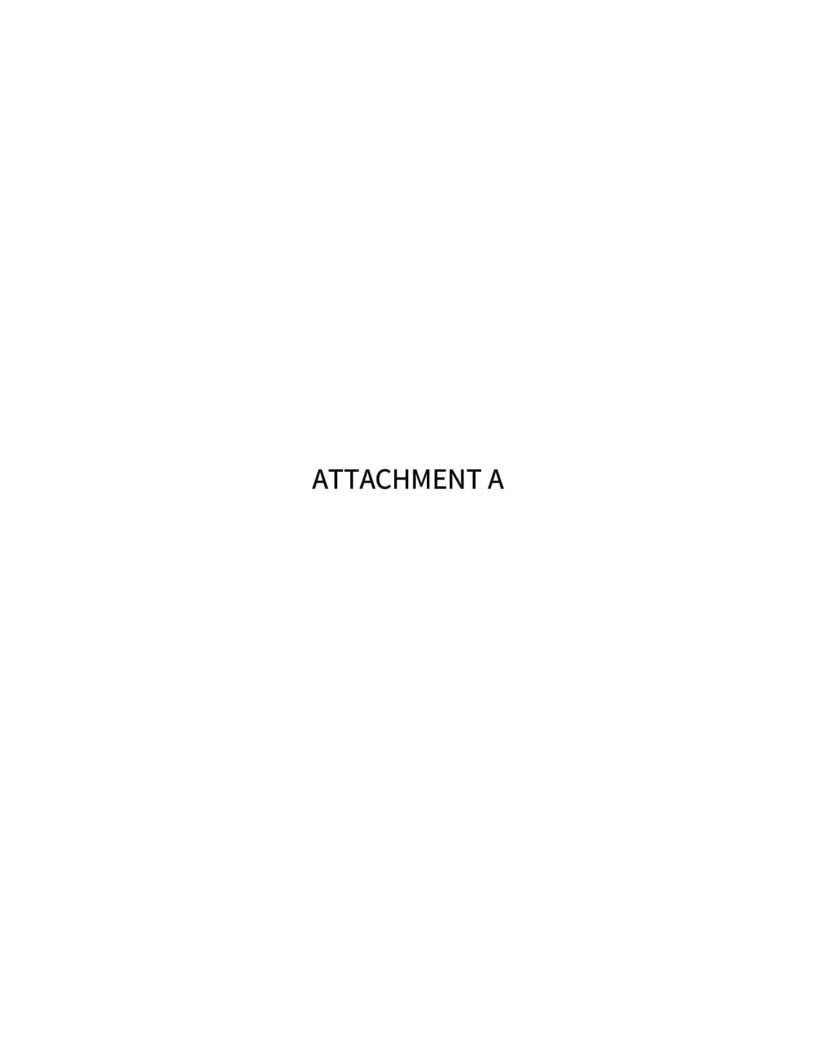
Pri	nt Name of Customer/Agent: <u>Jose Lozano, P.E.</u>
Da	te: <u>10/31/</u> 23
Sig	nature of Customer/Agent:
ϵ	an.
Pi	roject Information
1.	Current Regulated Entity Name: Vistas at Sonoma Original Regulated Entity Name: Vistas at Sonoma Regulated Entity Number(s) (RN): RN105116677 Edwards Aquifer Protection Program ID Number(s): X The applicant has not changed and the Customer Number (CN) is: CN605658350 The applicant or Regulated Entity has changed. A new Core Data Form has been provided.
2.	X Attachment A: Original Approval Letter and Approved Modification Letters. A copy of the original approval letter and copies of any modification approval letters are attached.

plan has been mo	·	the appropriate table below, as		
WPAP Modification	Approved Project	Proposed Modification		
Summary				
Acres	36.41	36.41		
Type of Development	Single Family Residential	Single Fa <u>mily Re</u> sidential		
Number of Residential	117	117		
Lots				
Impervious Cover (acres)	14.14	14.26		
Impervious Cover (%	38.84	39.17		
Permanent BMPs	Sedimentation Basin & VFS	Ad <u>ditional</u> VFS		
Other	N/A	N/A		

SCS Modification	Approved Project	Proposed Modification
Summary		
Linear Feet	_N/A_	N/A
Pipe Diameter	N/A	N/A
Other	N/A	N/A

AST Modification	Approved Project	Proposed Modification		
Summary				
Number of ASTs	N/A	N/A		
Volume of ASTs	N/A	N/A		
Other	N/A	N/A		
UST Modification	Approved Project	Proposed Modification		
Summary				
Number of USTs	N/A	N/A		
Volume of USTs	_N/A	N/A		
Other	_N/A	N/A		
5. X Attachment B: Narrative of Proposed Modification. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.				
6. Attachment C: Current Site Plan of the Approved Project. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere. The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired. The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved. The approved construction has commenced and has been completed. Attachment C illustrates that the site was not constructed as approved. The approved construction has commenced and has not been completed. Attachment C illustrates that, thus far, the site was constructed as approved. The approved construction has commenced and has not been completed. Attachment C illustrates that, thus far, the site was not constructed as approved.				
 The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage. Acreage has not been added to or removed from the approved plan. 				
8. X Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional				

office.



Kathleen Hartnett White, Chairman Larry R. Soward, Commissioner Martin A. Hubert, Commissioner Glenn Shankle, Executive Director



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 30, 2007

Mr. Mitchell Starnes Milo Drive, Inc. 2611 N. Loop 1604, Suite 202 San Antonio, TX 78258

Re: Edwards Adulfer, Bexar County

NAME OF PROJECT: Vistas at Sonoma; Located at the corner of Arroyo Hondo and Kyle Seale

Parkway; San Antonio, Texas

TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas

Administrative Code (TAC) Chapter 213 Edwards Aquifer

Edwards Aquifer Protection Program ID No. 2596.00

Regulated Entity No. RN105116677

Investigation No. 532892

Dear Mr. Starnes:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP application for the referenced project submitted to the San Antonio Regional Office by Pape-Dawson Engineers, Inc. on behalf of Milo Drive, Inc. on November 30, 2007. Final review of the WPAP submittal was completed after additional material was received on January 25, 2007. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer protection plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.

PROJECT DESCRIPTION

The proposed residential project will have an area of approximately 36.41 acres. It will include construction of roads, utilities, a water quantity detention basin, two sedimentation/filtration basins and residential homes. The impervious cover will be 14.14 acres (38.84 percent). Project wastewater will be disposed of by conveyance to the existing Leon Creek Water Recycling Center owned by the San Antonio Water System.

On January 24, 2007 the TCEQ San Antonio Regional Office conducted a site assessment investigation. The results of the investigation indicated regulated activity (soil disturbance) has taken place at the site prior to obtaining TCEQ approval.

659800

REPLY To: REGION 13 ■ 14250 JUDSON RD. ● SAN ANTONIO, TEXAS 78233-4480 ● 210/490-3096 ● FAX 210/545-4329

Mr. Mitchell Starnes Page 2 January 30, 2007

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent pollution of stormwater runoff originating on-site or up-gradient of the site and potentially flowing across and off the site after construction, two partial sedimentation filtration basins and vegetated filter strips designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (BMPs) (2005) will be constructed. The approved measures have been presented to meet the required 80 percent removal of the increased load in TSS caused by the project. The pollution abatement measures are sized based on the information in the following table.

Drainage Area/WQ Basin	Total Area (acres)	Imp. Cover (acres)	Runoff Depth (inches)	Calc. Mm. Capture Volume (ft³)	Design Capture Volume (fb)	Calc. Min. Filter Area (ff²)	Design Filter Area (ft²)	Min. TSS Removal (lb/yr)	Design TSS Removal (lb/yr)
1	3.89	2.05	2.80	17,689	18,144	1,769	3,024	1,672	* 1,920
2	15.76	7.93	1.60	39,460	40,218	3,946	6,703	6,470	* 7,439
Uncaptured	1.39	0.44		-				359	0
VFS	13.05	3.72	-	-	-	-	•,	3,035	3,035
Buffers/ Open Space	2.31		-	-	-	• ,,	n = 36	*	•
Total	36.41	14.14	-					11,536	12,394

includes overtreatment removal for the uncaptured area (359 lbs of TSS)

GEOLOGY

According to the geologic assessment included with the application, eleven features were identified at the site. Three of the features (S-6, S-10, and S-11) were ranked sensitive. The San Antonio Regional Office site assessment investigation was conducted on January 24, 2007. The investigator met on site with Mr. Steve Frost, President and Senior Geologist, Frost GeoSciences, Inc. and Mr. Vance L. Weynand, E.I.T., Engineer I, Pape-Dawson Engineers, Inc. The San Antonio Regional Office site inspection of January 24, 2007, revealed that the site is generally as described by the geologic assessment.

Additional documentation submitted to the TCEQ San Antonio Regional Office on January 25, 2007 included a geologic assessment completed for feature S-11 (fault). The geologic assessment ranked feature S-11 as not sensitive.

The inconsistencies between the two geologic assessments for feature S-11 are addressed with Special Condition VIII below.

SPECIAL CONDITIONS

I The sedimentation/filtration basins 1 and 2 are designed in accordance with the TCEQ TGM RG-348 (2005). The basins will incorporate sedimentation and filtration as described above.

Mr. Mitchell Starnes Page 3 January 30, 2007

- II All sediment and or media removed from the partial sedimentation/filtration basins during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335 as applicable.
- III In addition to the rules of the commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.
- IV Permanent pollution abatement measures shall be operational prior to occupancy of any of the residences within the respective contributing drainage areas.
- V The applicant shall provide all contractors with a copy of pages 1-35 through 1-60 of TCEQ TGM RG-348 (2005) as a guide for soil stabilization practices and assure that any soil stabilization is performed is in accordance with these practices and the approved plan.
- VI Temporary best management practices are required during the home construction phase of development on the individual lots.
- VII Intentional discharges of sediment laden stormwater are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, filters, etc.
- The geologic assessment submitted for the site on November 30, 2006 and performed by Prost GeoSciences ranks feature S-11 (fault) as sensitive. The geologic assessment submitted for the site on January 25, 2007 and performed by Pape-Dawson Engineers, Inc. ranks feature S-11 (fault) as not sensitive. The applicant shall reconcile the conflicting reports or obtain a third party evaluation of the feature S-11. The report shall be submitted to the TCEQ San Antonio Regional Office for evaluation and approval. Regulated activities may not commence at the site prior to TCEQ approval of the report submitted.
- Regulated activities identified during the site assessment investigation constitute construction without the prior approval of the water pollution abatement plan as required by Commission rules (30 TAC Chapter 213). Therefore, the applicant is hereby advised that the after-the-fact approval of the development, as provided by this letter, shall not absolve the applicant of any prior violations of Commission rules related to this project, and shall not necessarily preclude the Commission from pursuing appropriate enforcement actions and administrative penalties associated with such violations, as provided in 30 TAC §213.10 of Commission rules.

STANDARD CONDITIONS

 Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

Within 60 days of receiving written approval of an Edwards Aquifer protection plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed

Mr. Mitchell Starnes Page 4 January 30, 2007

recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.

- 3. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
- 4. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
- 5. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
- 6. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
- 7. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

During Construction:

- 8. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
- 9. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.

Mr. Mitchell Starnes Page 5 January 30, 2007

- 10. No wells exist on the site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
- 11. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
- 12. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 13. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

- 14. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
- 15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
- Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
- 17. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

Mr. Mitchell Starnes Page 6 January 30, 2007

18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact Agnieszka Hobson of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210.403.4075.

Sincerely,

Glenn Shankle Executive Director

Texas Commission on Environmental Quality

GS/AMH/eg

Enclosures:

Deed Recordation Affidavit, TCEQ-0625

Change in Responsibility for Maintenance on Permanent BMPs, TCEQ-10263

cc:

Mr. Ruben Cervantes, P.E., Pape-Dawson Engineers, Inc.

Mr. Scott Halty, San Antonio Water System Ms. Renee Green, Bexar County Public Works Mr. Robert J. Potts, Edwards Aquifer Authority

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TCEQ Central Records, MC 212



RECEIVED TOEO'

LAND DEVELOPMENT ENVIRONMENTAL TRANSPORTATION WATER RESOURCES SURVEYING 2009 SEP - 1 AM 10: 58

August 31, 2009

Mr. Richard Garcia TCEQ Region 13 14250 Judson Road San Antonio, Texas 78233-4480

Re:

Vistas at Sonoma (Enclave) WPAP

TCEQ File No. 2596.00

Technical Letter - Basin 2 Construction Plans



The Vistas at Sonoma (Enclave) Water Pollution Abatement Plan (WPAP) was approved by the Texas Commission on Environmental Quality (TCEQ) on January 30, 2007. A copy of the approval letter is attached for reference. This submittal serves to provide an updated construction plan for Basin 2 and updated basin design information. Also attached for reference are the original approved Basin 2 Plan and the submitted updated Basin 2 plan.

The approved WPAP was for an approximately 36.41-acre tract to be developed as a single-family residential project in one phase. This project was composed of approximately 38.84% impervious cover, which included approximately 117 single-family residential lots, rooftops, driveways, sidewalks, and associated roadways. The development contained several watersheds.

The approved Permanent Pollution Abatement Plan indicates that the permanent best management practices (BMPs) approved in the WPAP consists of two (2) sedimentation/filtration basins and vegetative filter strips down gradient of certain residential lots. Basin 2 was designed to treat stormwater runoff from watershed number 1 and overtreatment for ½ of the uncaptured area of 1.39 acres located south of Pico De Aguila. The required volume of this basin was calculated at 39,460 cubic feet. Using the geometry and depth of Basin 2, as determined from the approved Basin 2 detail sheet, the volume of the designed basin was calculated at approximately 40,218 cubic feet. However, in May 2008, updated basin plans were submitted to inform TCEQ of the basins that were being built in the field. The new geometry and depth of Basin 2 yielded a volume of 36,540 cubic feet. It was later determined that this plan did not account for the additional overtreatment watershed, thus producing a volume not adequate to handle the overtreatment.

As a result, the design and construction plans for Basin 2 were re-evaluated. The revised and updated plan submitted with this letter shows the weir height to be raised an additional 6 inches to increase the storage depth to 6.5 feet. This additional storage area yields a design capture volume of



Mr. Richard Garcia Vistas at Sonoma (Enclave) WPAP TCEQ File No. 2596.00 August 31, 2009 Page 2 of 3

39,585 cubic feet which is sufficient to capture the required load of the watershed number 1 and ½ of the overtreatment watershed area.

As detailed design of the streets and drains progressed for Vistas at Sonoma, streets and drains have been adjusted to accommodate appropriate engineering consideration due to the topographic characteristics. In addition, the overflow structure needed to be wider to eliminate storm water that would overflow onto the streets through the curb inlet. Therefore we have increased the length of the weir for a total of 25 feet. The following table summarizes the design criteria for Basin 2 as approved in the original WPAP, the submitted updated plans, and the as-built Basin 2 plans.

Summary of Basin 2 Design Criteria

Basin Data	Original WPAP Plans	Submitted Updated Plans	As-Built Construction Plans August 28, 2009	
Basin Date	January 25, 2007	May 22, 2008		
Watershed Size (Ac)	15.76	14.26	15.76	
Impervious Cover (Ac)	7.93	6.43	7.93	
% Impervious Cover	50.32	45.09	50.32	
Runoff Depth (in)	1.60	1.44	1.60	
Volume Required (cf)	39,460	35,034	39,460	
Sand Area Required (sf)	3,946	3,503	3,946	
Top of Basin (ft)	1093.57	1093.57	1093.57	
Overflow weir height (ft)	2	2	1.5	
Design Volume (cf)	40,218	36,540	39,585	
Design Sand Area (sf)	6,703	6,090	6,090	

Attached for TCEQ records are updated construction plans for Basin 2 which reflects the following adjustments:

- The elevation at the weir was raised 6 inches in order to attain a design volume approximately equal to the required volume. The raised weir increases the depth of the storage volume from 6 feet to 6.5 feet.
- We have also increased the length of the overflow structure by 8 feet for a total of 25 feet.
 This revision helps to alleviate ponding water on the entrance street known as Pico De Aguila.



Mr. Richard Garcia Vistas at Sonoma (Enclave) WPAP TCEQ File No. 2596.00 August 31, 2009 Page 3 of 3

We believe neither the revised or updated Basin 2 plan constitute a modification. The location, basic geometry, and function of the basin being submitted is consistent with the approved plans; the development remains a residential development as previously approved; the project area is not increased to include areas previously identified as undeveloped; it does not require the physical modification of an SCS, UST, or AST; and it does not increase the impervious cover of the overall development.

The revisions to these basin plans do not alter the nature of the approved WPAP for this residential development. The watersheds to be treated by this basin and the treatment that it provides does not change. These revisions are intended to maintain the proper operation and drainage of the basin. It is our opinion that the submittal of this letter should be adequate for the continuation of development for Vistas at Sonoma Subdivision as outlined in the original WPAP approved January 30, 2007. Please update your files with this submittal and provide your written concurrence of these updated basin plans. If you have questions or require additional information, please do not hesitate to contact our office. Thank you for your consideration.

Sincerely,	STATE
Pape-Dawson Engineers, Inc. Texas Board of Professional Engineers, Firm Registration	r 470
Cona O. melul	ARA C. TACKETT
Cara C. Tackett, P.E., LEED® AP	SONAL ENGINE

Attachments

ACKNOWLEDGED & ACCEPTED

P:\65\98\00\Word\TCEQ\090827a1-TECH LETTER.doc

Signature:	
Print Name:	
Title:	
Date:	



Texas Commission on Environmental Quality

Required Sand Area

Project: Vistas at Sonoma TSS Removal Calculations Watershed: 2 w/overtreatment Job No.: 6598-00 Input By User 8/27/2009 Date: Automatically Calculated Variables 1. Required Load Reduction $Lm = 27.2(AN \times P)$ Lm = Required TSS removal where: An = Net increase in impervious area for site P = Average annual precipitation, inches Site Data: County = Bexar Total site area = 15.76 acres acres 0.00 Predevelopment impervious area = 7.93 acres Post-development impervious area = Postdevelopment impervious fraction= 0.50 inches 30 Ibs included for overtreatment of uncaptured area 179.50 6,650.38 Lm = 2. Select BMP AC= Aqualogic Cartridge Filter BR= Bioretention Proposed BMP = [abbreviation CW= Constructed Wetland Removal efficiency = percent RI= Retention / Irrigation SF= Sand Filter WB= Wet Basin 3. Calculate TSS Load Removed by BMPs LR = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54) LR = TSS Load removed by BMP where: Ai = Impervious area of BMP catchment Ap = Pervious area of BMP catchment 7.93 acres Ai = acres 7.83 Ap = 7,438.79 lbs Lr= 4. Calculate Fraction of Annual to Treat 0.89 OK F = 5. Calculate Capture Volume 1.60 inches Rainfall Depth = Post Development Runoff Coefficient = 0.36 Runoff Volume = 32,884 cubic feet Storage for Sediment= 6,577 39,460 cubic feet **Total Capture Volume** 6. SAND AREA REQUIRED Af= WQV/10 (for systems combining filtration and sedimentation in a single basin) Af= WQV/18 (for systems combining filtration and sedimentation in a separate basins) Check if Partial Sedimentation Is Used 3,946 square feet Required Sand Area

square feet

2,192

Check if Full Sedimentation Is Used

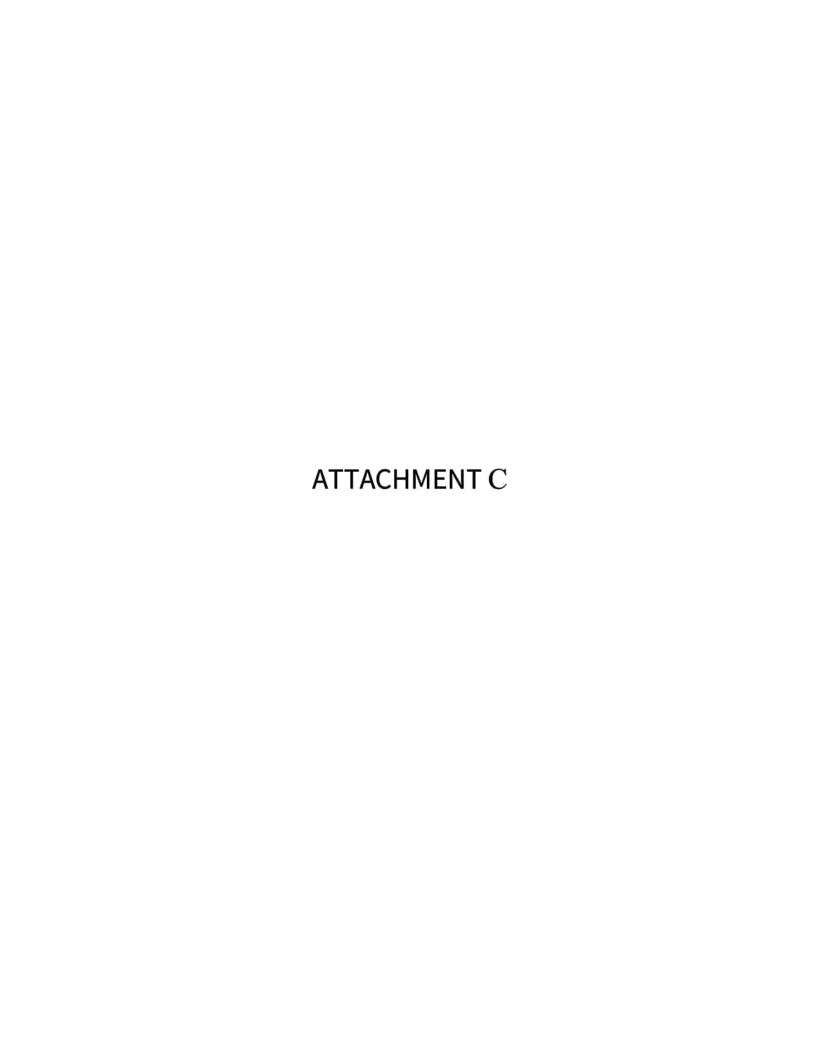
ATTACHMENT B Proposed Modification

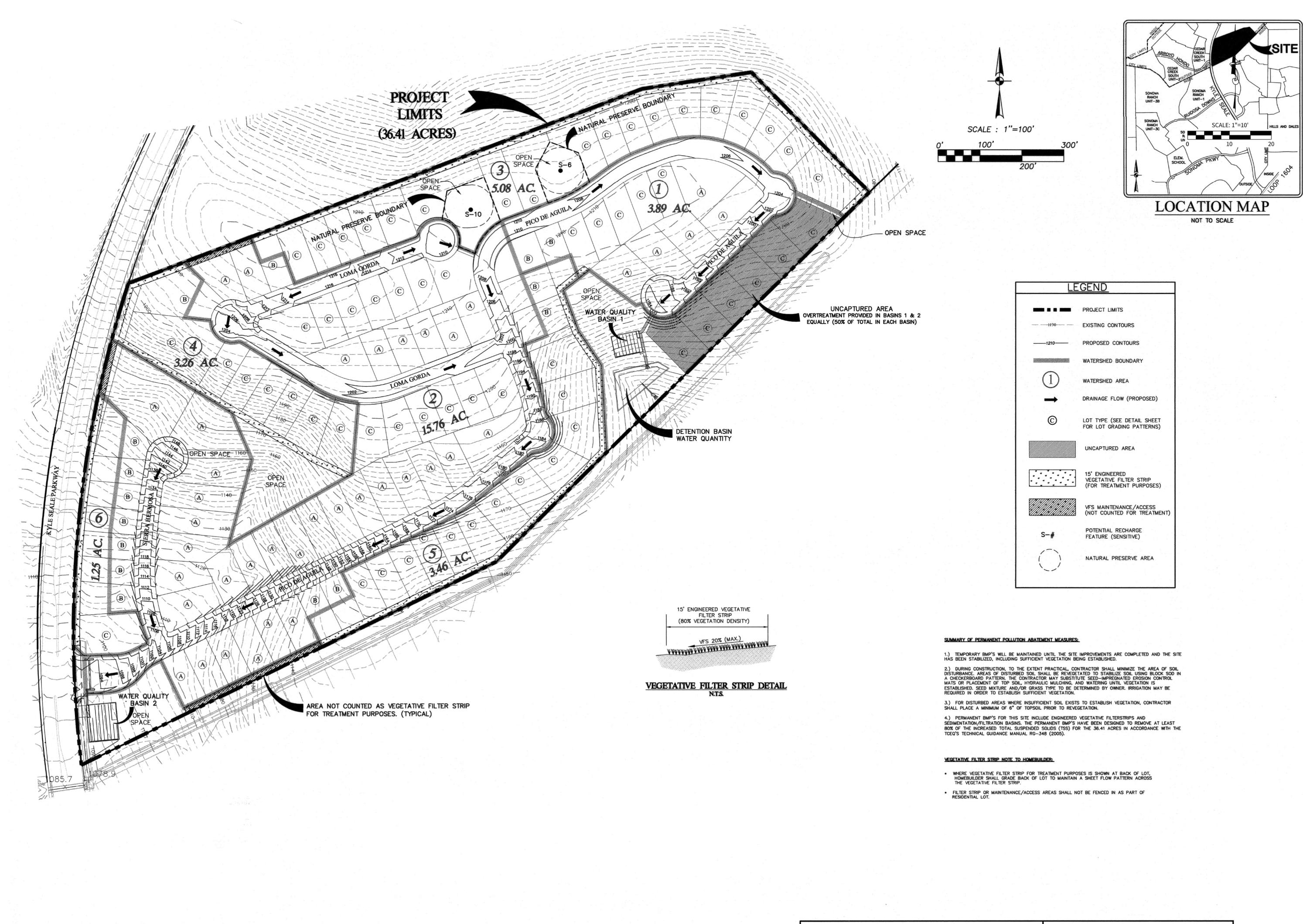
The proposed 0.39-acre development is located within an existing 36.41-acre residential subdivision. The existing subdivision includes roads, utilities, a water quality detention basin, two sedimentation/filtration basins, vegetated filter strips, and residential homes, and a recreational sports court. The proposed 0.39-acre modification includes the installation of a sports court and additional sidewalk to the sports court.

It is anticipated that there will be no storage of regulated quantities of hazardous materials within the project limits. The project site is located outside the city limits but within the extra-territorial jurisdiction (ETJ) of the City of San Antonio in Bexar County, Texas. Potable water is supplied by the San Antonio Water System (SAWS).

The overall residential development will have a modified impervious cover percentage of approximately 39.17% (approximately 14.26 acres).

The increase in impervious cover as a result of this development will require the use of best management practices (BMPs) to treat 80% of the increase in total suspended solids(TSS) for the site. Vegetated filter strips (VFS) have been designed in accordance with the TCEQ Technical Guidance Manual (TGM) RG-348 (2017) to serve as permanent BMPs.





THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE POLLUTION ABATEMENT SIZING AND TREATMENT REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S EDWARDS AQUIFER TECHNICAL GUIDANCE MANUAL.

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF POLLUTION ABATEMENT ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

REPRODUCTION OF THE ORIGINAL SIGNED AND SEALED PLAN AND/OR ELECTRONIC MEDIA MAY HAVE BEEN INADVERTENTLY ALTERED. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE DOCUMENT AND CONTACTING CUDE ENGINEERS TO VERIFY DISCREPANCIES PRIOR TO CONSTRUCTION.

CUDEENGINEERS.COM

CUDEENGINEERS.COM

CUDEENGINEERS.COM

1290 Wonder World Dr., Suite 1240 San Marcos, Texas 78666 P:(210) 681.2951 F: (210) 523.7112

ISTAS AT SONOMA SUBDIVISION

> DATE 10/31/23 PROJECT NO. 04199.001

WATER POLLI Current A

REVISIONS

CUDE ENGINEERS

TBPE No. 455

TBPLS No. 10048500

EXH



WATER POLLUTION ABATEMENT PLAN APPLICATION

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

4. The amount and type of impervious cover expected after construction are shown below:

Print Name of Customer/Agent: <u>Jose L</u> ozano, P.E.				
Date:	10/31/2023			
Signa	tyre of Customer/Agent:			
Regul	lated Entity Name: VISTAS AT SONOMA			
Regulated Entity Information				
1. Tł	he type of project is:			
	Residential: Number of Lots: <u>117</u> Residential: Number of Living Unit Equivalents: Commercial Industrial Other:			
2. To	otal site acreage (size of property): 0.39			

Estimated projected population: 468

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	0	÷ 43,560 =	0
Parking	0	÷ 43,560 =	0
Other paved surfaces	5,230	÷ 43,560 =	0.12
Total Impervious Cover	5,230	÷ 43,560 =	0.12

Total Impervious Cover 0.12 ÷ Total Acreage 0.39 X 100 = 30.77% Impervious Cover

- 5. X Attachment A Factors Affecting Surface Water Quality. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.
- 6. X Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

For Road Projects Only

Complete questions 7 - 12 if this application is exclusively for a road project.

~~	in piete questions ? —— i uns application is exclusively for a rough project.
7.	Type of project:
	TXDOT road project. County road or roads built to county specifications. City thoroughfare or roads to be dedicated to a municipality. Street or road providing access to private driveways.
8.	Type of pavement or road surface to be used:
	Concrete Asphaltic concrete pavement Other:
9.	Length of Right of Way (R.O.W.): feet.
	Width of R.O.W.: feet. L x W = $Ft^2 \div 43,560 Ft^2/Acre = acres.$
10.	Length of pavement area: feet.
	Width of pavement area: feet. L x W = $Ft^2 \div 43,560 Ft^2/Acre = acres$. Pavement area acres \div R.O.W. area acres x $100 = \%$ impervious cover.
11.	A rest stop will be included in this project.
	A rest stop will not be included in this project.

12.	Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half $(1/2)$ the width of one (1) existing lane require prior approval from the TCEQ.			
Stor	mwater to be generated by the Proposed Project			
13. X	Attachment B - Volume and Character of Stormwater. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on the area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.			
Was	tewater to be generated by the Proposed Project			
14. The	e character and volume of wastewater is shown below:			
	% DomesticGallons/day% IndustrialGallons/day% CommingledGallons/day TOTAL gallons/day			
15. Wa	astewater will be disposed of by:			
	On-Site Sewage Facility (OSSF/Septic Tank):			
	Attachment C - Suitability Letter from Authorized Agent. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities. Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.			
	Sewage Collection System (Sewer Lines):			
	 Private service laterals from the wastewater generating facilities will be connected to an existing SCS. Private service laterals from the wastewater generating facilities will be connected to a proposed SCS. 			
	 The SCS was previously submitted on The SCS was submitted with this application. The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval. 			

_	sewage collection system will convey the wastewater to the (name) tment Plant. The treatment facility is:
=	Existing. Proposed.
16. 🗌 All p	rivate service laterals will be inspected as required in 30 TAC §213.5.
Site Pla	nn Requirements
Items 17 – 2	28 must be included on the Site Plan.
17. X The	Site Plan must have a minimum scale of 1" = 400'.
Site Plar	Scale: 1" = <u>100</u> '.
18. 100-yea	r floodplain boundaries:
is sh X No p The 100 material 19. The appr	e part(s) of the project site is located within the 100-year floodplain. The floodplain own and labeled. Part of the project site is located within the 100-year floodplain. Serve of the project site is located within the 100-year floodplain. Serve of floodplain boundaries are based on the following specific (including date of local sources(s): FEMA FIRM (Bexar County, Texas and Incorporated Areas), Map Number 48029C0210G dated September 29, 2010 layout of the development is shown with existing and finished contours at ropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, dings, roads, open space, etc. are shown on the plan.
grea exist	layout of the development is shown with existing contours at appropriate, but not ter than ten-foot intervals. Finished topographic contours will not differ from the ting topographic configuration and are not shown. Lots, recreation centers, dings, roads, open space, etc. are shown on the site plan.
20. All know	on wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):
_	e are (#) wells present on the project site and the locations are shown and led. (Check all of the following that apply)
י 📮	The wells are not in use and have been properly abandoned. The wells are not in use and will be properly abandoned. The wells are in use and comply with 16 TAC §76.
X Ther	e are no wells or test holes of any kind known to exist on the project site.
21. Geologic	c or manmade features which are on the site:
S N X X	All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled. No sensitive geologic or manmade features were identified in the Geologic Assessment. Attachment D - Exception to the Required Geologic Assessment. A request and sustification for an exception to a portion of the Geologic Assessment is attached.

$[2. extbf{X}]$ The drainage patterns and approximate slopes anticipated after major grading activities				
3. $ extstyle extstyle$				
24. X Locations of major structural and nonstructural controls. permanent best management practices.	These are the temporary and			
25. \overline{X} Locations where soil stabilization practices are expected t	o occur.			
26. \boxed{X} Surface waters (including wetlands).				
□ N/A				
27. Locations where stormwater discharges to surface water occur.	or sensitive features are to			
\overline{X} There will be no discharges to surface water or sensitive f	eatures.			
28. X Legal boundaries of the site are shown.				

Administrative Information

- 29. X Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 30. X Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

ATTACHMENT A Factors Affecting Water Quality

Potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges from the site during construction include:

- Soil erosion due to the clearing of the site;
- Oil, grease, fuel, and hydraulic fluid contamination from construction equipment and vehicle drippings;
- Miscellaneous trash and litter from construction workers and material wrappings;
- Concrete truck washout

Potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges from the site after development include:

- Oil, grease, fuel, and hydraulic fluid contamination from vehicle drippings;
- Dirt and dust which may fall off vehicles;
- Miscellaneous trash and litter

ATTACHMENT B Volume and Character of Stormwater

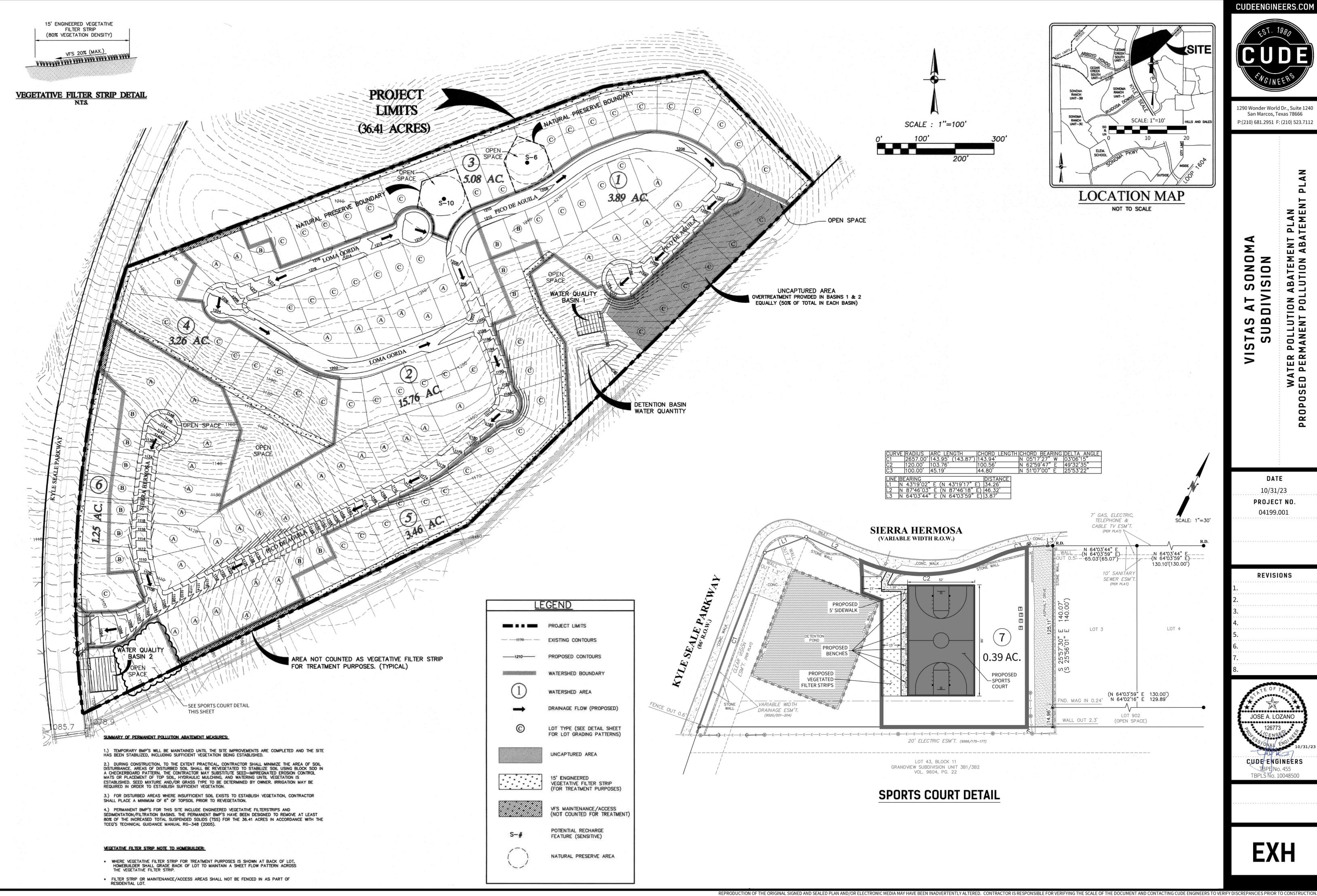
Stormwater runoff will increase as a result of these improvements and the previously approved improvements for this development dated January 30, 2007. For a 25-year storm event, the overall project will generate approximately 60.0 CFS. The runoff coefficient for the site changes from approximately 0.53 when the site was undeveloped to approximately 0.72 after development of both the previous and current proposed improvements. Values are based on the Rational Method using runoff coefficients as per the City of San Antonio Unified Development Code.

ATTACHMENT C Suitability Letter from Authorized Agent

Not applicable to this project

ATTACHMENT D Exception to the Required Geologic Assessment

A previous Geological Assessment, dated January 12, 2006, was prepared by Frost Geosciences for the originally approved WPAP, approved January 30, 2007 and as-built on August 31, 2009. The previous Geological Assessment found no sensitive geologic or man-made features within the 0.39 acre area in question of this Modification. Additionally, the overall Vistas at Sonoma subdivision has since been built out, and the area in question as been graded and re-vegetated. As such, we request exception to the required new Geological Assessment for this Modification.





TEMPORARY STORMWATER SECTION

Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Jose Lozano, P.E.

Date: 10/31/23

Signature of Customer/Agent:

Regulated Entity Name: Vistas at Sonoma

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

- Fuels for construction equipment and hazardous substances which will be used during construction:
 - X The following fuels and/or hazardous substances will be stored on the site: Construction Staging Area

These fuels and/or hazardous substances will be stored in:

X Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

Sequence of Construction

quality is attached.

- 5. X Attachment C Sequence of Major Activities. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
 - X For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
 - X For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6. X Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: <u>Upper Leon Creek</u>

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. X Attachment D – Temporary Best Management Practices and Measures. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

	 A description of how BMPs and measures will prevent groundwater or stormwater that originates upgrading across the site. A description of how BMPs and measures will prevent groundwater that originates on-site or flows off site contaminated stormwater runoff from the site. A description of how BMPs and measures will prevent surface streams, sensitive features, or the aquifer. A description of how, to the maximum extent pract maintain flow to naturally-occurring sensitive feature geologic assessment, TCEQ inspections, or during exconstruction. 	ent from the site and flows ent pollution of surface water or e, including pollution caused by ent pollutants from entering icable, BMPs and measures will res identified in either the
8.	X The temporary sealing of a naturally-occurring sensitive to the Edwards Aquifer as a temporary pollution abates construction should be avoided.	
	Attachment E - Request to Temporarily Seal a Feat seal a feature is attached. The request includes just and practicable alternative exists for each feature. X There will be no temporary sealing of naturally-occursite.	tification as to why no reasonable
9.	X Attachment F - Structural Practices. A description of the used to divert flows away from exposed soils, to store for discharge of pollutants from exposed areas of the site is structural practices in floodplains has been avoided.	lows, or to otherwise limit runoff
10.	Attachment G - Drainage Area Map. A drainage area n requirements is attached:	nap supporting the following
	 For areas that will have more than 10 acres within a disturbed at one time, a sediment basin will be proved. For areas that will have more than 10 acres within a disturbed at one time, a smaller sediment basin and used. For areas that will have more than 10 acres within a disturbed at one time, a sediment basin or other educationable, but other TBMPs and measures will be used down slope and side slope boundaries of the construction. There are no areas greater than 10 acres within a condition of the construction. A smaller sediment basin and used in combination with other erosion and sedimed drainage area. 	vided. a common drainage area d/or sediment trap(s) will be a common drainage area quivalent controls are not used in combination to protect ruction area. ommon drainage area that will be ad/or sediment trap(s) will be

	There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.
11. 🗌	Attachment H - Temporary Sediment Pond(s) Plans and Calculations. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
X	N/A
12. X	Attachment I - Inspection and Maintenance for BMPs. A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
13. X	All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
14. X	If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
15. 🗌	Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
16. X	Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. X Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices. A schedule of the interim and permanent soil stabilization practices for the site is attached.

- 18. X Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 19. X Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

- 20. X All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
- 21. X If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
- 22. X Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

ATTACHMENT "A" SPILL RESPONSE ACTIONS

Spill Prevention and Control

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

- (1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.
- (2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- (3) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- (4) Establish a continuing education program to indoctrinate new employees.
- (5) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- (1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- (2) Store hazardous materials and wastes in covered containers and protect from vandalism.
- (3) Place a stockpile of spill cleanup materials where it will be readily accessible.
- (4) Train employees in spill prevention and cleanup.

- (5) Designate responsible individuals to oversee and enforce control measures.
- (6) Spills should be covered and protected from stormwater runon during rainfall to the extent that it doesn't compromise clean up activities.
- (7) Do not bury or wash spills with water.
- (8) Store and dispose of used clean up 'materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
- (9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
- (10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- (11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- (12) Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- Clean up leaks and spills immediately.
- (2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- (3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- (1) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- (2) Use absorbent materials on small spills rather than hosing down or burying the spill.
- (3) Absorbent materials should be promptly removed and disposed of properly.
- (4) Follow the practice below for a minor spill:
- (5) Contain the spread of the spill.
- (6) Recover spilled materials.
- (7) Clean the contaminated area and properly dispose of contaminated materials.

Semi-significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

- Contain spread of the spill.
- (2) Notify the project foreman immediately.
- (3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
- (4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
- (5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

- (1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- (2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- (3) Notification should first be made by telephone and followed up with a written report.
- (4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
 - (5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at: https://www.tceq.texas.gov/remediation/corrective action/spill.html

Vehicle and Equipment Maintenance

- (1) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- (2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately.
- (3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- (4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

- (5) Place drip pans or absorbent materials under paving equipment when not in use.
- (6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- (7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
- (8) Oil filters disposed of in trashcans or dumpsters can leak 03 and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters. '
- (9) Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you &think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

- (1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- (2) Discourage "topping off" of fuel tanks.
- (3) Always use secondary containment, such as a drain pan, when fueling to catch spills/leaks.

Spill Response Actions

In the event that a spill of hydrocarbons or hazardous substances does occur, the contractor shall be required to maintain a sufficient stockpile of sand material in the staging area. This sand material shall be used to immediately isolate and provide containment of the spill by constructing dikes. Furthermore, this sand material shall act as an absorbent material that can be disposed of offsite and out of the Recharge Zone during clean-up operations. The contractor, in the event of a spill, shall also notify the owner who shall contact TCEQ. All contaminated soils resulting from an accidental release will be required to be removed and disposed of in accordance with all local, state and federal regulations.

ATTACHMENT B Potential Sources of Contamination

Potential Source Oil, grease, fuel and hydraulic fluid contamination from construction

equipment and vehicle dripping.

Preventive Measure Vehicle maintenance, when possible, will be performed within a

construction staging area specified by the General Contractor.

Potential Source Miscellaneous trash and litter from construction workers and material

wrappings.

Preventive Measure Trash containers will be placed throughout the site to encourage

proper trash disposal.

Potential Source Construction debris.

Preventive Measure Construction debris will be monitored daily by contractor. Debris will

be collected weekly and placed in disposal bins. Situations requiring

immediate attention will be addressed on a case-by-case basis.

Potential Source Stormwater contamination from excess application of fertilizers, herbicides,

and pesticides.

Preventive Measure Fertilizers, herbicides and pesticides will be applied only when

necessary and in accordance with manufacturers directions.

Potential Source Soil and mud from construction vehicle tires as they leave the site.

Preventive Measure A temporary construction entrance/exit shall be utilized as vehicles

leave the site. Any soil, mud, etc. carried from the project onto public

roads shall be cleaned up within 24 hours.

Potential Source Sediment from soil, sand, gravel and excavated materials stockpiled on site.

Preventive Measure Silt fence shall be installed on the down gradient side of all stockpiled

materials. Reinforced rock berms shall be installed at all downstream

discharge locations.

ATTACHMENT C Sequence of Major Activities

Sequence		Approximate
Item	Description	Acres
		Disturbed
1.	Site clearing/grubbing	
2.	Site grading	0.39 Acres
4.	Installation of sidewalks and sports court	0.55 Acres
5.	Final grading and soil stabilization	

ATTACHMENT D Temporary Best Management Practices and Measures

- 1. Temporary Construction Entrance/Exit A stabilized pad of crushed stone located at any point where traffic will be entering or leaving the construction site from a public R.O.W., street, alley, sidewalk or parking area. It shall be a minimum of 50 feet long, 12 feet wide and 8 inches thick. The rock shall be 4" to 8" in size.
- Silt Fence A barrier consisting of geotextile fabric supported by metal posts to
 prevent soil and sediment loss from a site. Silt fences shall be installed on the
 down gradient side of the proposed areas to be disturbed that have a drainage
 area of 2 or less acres.
- 3. Bagged Gravel Inlet Filter Sandbags filled with washed pea gravel and stacked to form a continuous barrier about 1 foot high around the inlets.
- 4. Rock Berms A sediment trap consisting of 3" to 5" diameter rock wrapped in a woven wire sheathing. The berm shall have a minimum height of 36" and a minimum top width of 2 feet. A rock berm shall be placed at locations of the concentrated flows where the drainage area is between 2 and 5 acres.
- 5. Temporary Seeding Temporary seeding of disturbed areas shall be performed if disturbed areas are expected to have no construction activity for a period of at least 21 days.

Sequence of installation during construction process

- The Temporary Construction Entrance/Exit (Item 1) shall be installed prior to disturbing any soil except at the location of the Temporary Construction Entrance/Exit. It shall stay in place and be maintained until the end of the infrastructure construction.
- 2. Silt fence (Item 2) shall be installed along the western boundary of the site prior to any disturbance of the site.
- 3. Bagged gravel inlet filters (Item 3) shall be placed around all grate inlets following installation.
- 4. Rock berms (Item 4) shall be installed around the perimeter of the project at natural low points following rough grading of the site and shall be removed

once grading to the on-site stormwater drainage system with bagged gravel inlet filters in sump is complete. Rock berms will also be utilized at the outlet of the pond while it is being constructed.

De-watering activities in the WQP as necessary during pond construction activities.

The TBMPs and measures utilized for the proposed project to prevent pollution of storm water, groundwater, and surface water during the construction phase are the following:

- 1. Temporary Construction Entrance/Exit
- 2. Silt Fence
- 3. Bagged Gravel Inlet Filters
- 4. Rock Berm

Upgradient Surface water, Groundwater, and Storm water

As the scope of this report is limited to Lambent Ranch site, there is surface water, ground water, or storm water originating from upgradient of the limits of the WPAP. Lambent Ranch receives surface water from the back of lots of single-family homes to the north of the property. This surface water will be conveyed to French Creek within a swale.

Onsite Surface water, Groundwater, and Storm water

Temporary BMPs utilized on the proposed project site to prevent pollution of onsite surface water, groundwater, and storm water are silt fences acting as barriers to prevent pollution of stormwater.

Prevention of Pollutants Entering Surface Streams, Sensitive Features, and the Aquifer

Temporary BMPs utilized on the proposed project site to prevent pollution of surface streams, sensitive features, and the aquifer are temporary construction entrance/exit, bagged gravel inlet filters, silt fence, and rock berms. The construction entrance/exit provides a stable exit from the construction site and keeps sediment and mud off public roads. The other TBMPs delineated act in like manner as previously described to protect surface streams, sensitive features, and the aquifer.

ATTACHMENT E Request to Temporarily Seal a Feature

Not applicable to this project

ATTACHMENT F Structural Practices

Runoff discharge of pollutants from exposed areas of the site will be limited through the utilization of temporary BMPs. Prior to leaving the site, flows containing pollutant discharges will be treated by a silt fence, bagged gravel inlet filters, or rock berms which will limit the amount of pollutants leaving the site.

ATTACHMENT G Drainage Area Map

Not applicable to this project

ATTACHMENT H Temporary Sediment Pond Plans and Calculations

Not applicable to this project

ATTACHMENT I

Inspection and Maintenance for BMPs

Temporary Sediment Control Fences

- 1. Inspect all fencing weekly, and after any rainfall.
- 2. Remove sediment when buildup reaches 6 inches.
- 3. Replace any torn fabric or install a second line of fencing parallel to the torn section.
- 4. Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.
- 5. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of silt fence should be re-vegetated. The fence itself should be disposed of in an approved landfill.

Rock Berm / High Service Rock Berm

- 1. Inspections should be made weekly and after each rainfall by the responsible party.
- 2. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt of in an approved manner.
- 3. Repair any loose wire sheathing.
- 4. The berm should be reshaped as needed during inspection.
- 5. The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
- The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

Temporary Construction Entrance and Exits

- 1. The entrance should be maintained in a condition, which will prevent tracking or following of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.
- 2. All sediment spilled, dropped, washed or tracked on to public rights-of-ways should be removed immediately by contractor.
- When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-ofway.
- 4. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.
- All sediment should be prevented from entering ant storm drain, ditch, or water course by using approved methods.

Bagged Gravel Inlet Filters

- Inspections should be made weekly and after each rainfall. Repair or replacement should be made promptly as needed by the contractor.
- 2. Remove sediment when buildup reaches a depth of 3 inches. Removed sediment should be deposited in a suitable area and in such a manner that it will not erode.

- 3. Check placement of device to prevent gaps between device and curb.
- 4. Inspect filter fabric and patch or replace if missing or torn,
- 5. Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

Temporary Seeding

- 1. Temporary vegetation should be inspected weekly and after each rain event to locate and repair any erosion.
- 2. Erosion from storms or other damage should be repaired as soon as practical by regarding the area and applying new seed.
- 3. If the vegetated cover is less than 80%, the area should be reseeded.

Concrete Washout Pit Area

- 1. Each material making up pit area shall be inspected for any damage.
- 2. Plastic lining shall be inspected periodically to ensure no holes, tears or other defects are observed that might compromise the impermeability of the material.
- 3. Remove accumulated hardened concrete by breaking up and disposing of properly and if necessary, replacing plastic lining.

Documentation Procedures

- 1. A copy of the inspection report is located on the following page.
- 2. The inspection report must be maintained on site at all times.
- The inspection report is incorporated as part of the WPAP. The contractor is responsible for completing and updating the form in compliance with TCEQ rules.

Inspections

Designated and qualified person(s) shall inspect Pollution Control Measures every fourteen days and within 24 hours after a storm event greater than 0.5 inches of rainfall. An inspection report that summarizes the scope of the inspection, names and qualifications of personnel conducting the inspection, date of the inspection, major observations, and actions taken as a result of the inspection shall be recorded and maintained as part of Storm Water TPDES data for a period of three years after the date of the inspection. A copy of the Inspection Report Form is provided in this Storm Water Pollution Prevention Plan.

As a minimum, the inspector shall observe: (1) significant disturbed areas for evidence of erosion, (2) storage areas for evidence of leakage from the exposed stored materials, (3) structural controls (rock berm outlets, silt fences, drainage swales, etc.) for evidence of failure or excess siltation (over 6 inches deep), (4) vehicle exit point for evidence of off-site sediment tracking, (5) vehicle storage areas for signs of leaking equipment or spills, and (6) concrete truck rinse-out pit for signs of potential failure. Deficiencies noted during the inspection will be corrected and documented within seven (7) calendar days following the inspection or before the next anticipated storm event if practicable.

BMP INSPECTION REPORT

Pollution		ted	Corrective Action	
Prevention		Inspected		Date
Measure		- Sul	Description	Completed
	Inspections			
Jce	Fencing			
Silt Fence	Sediment Removal			
Sil	Torn Fabric			
	Crushed/Collapsed Fencing			
ix o	Inspections			
Construction Entrance/Exit	Additional top Dressing			
onstr itran	Repair/Cleanout			
о Б	Sediment removed immediately			
	Inspections			
E	Fencing			
Rock Berm	Sediment Removal			
Roc	Torn Fabric			
	Crushed/Collapsed Fencing			
et	Inspections			
Bagged Gravel Inlet Filter	Sediment Removal			
Bag rave Filt	Device Placement			
Ō	Torn Fabric			
ary ng	Inspections			
Temporary Seeding	Eroded Areas			
Ten	Vegetated cover less than 80%			
ij	Inspections			
rete ut P	Plastic Lining			
Concrete Washout Pit	Berm / sand bags			
_	Accumulated concrete/removal			
*Indicate N/A wl	nere measure does not apply.			

By my signature below, I certify that all items are acceptable and the project site is in compliance with SWPP				
Inspector's Name	Inspector's Signature			
Name of Owner/Operator (Firm) Note: Inspector is to attach a brief statement of his qualification	Date ons to this report.			

BMP INSPECTION REPORT

Pollution		Corrective Action	Corrective Action	
Prevention	Inspected		Date	
Measure	lnsp	Description	Completed	
General				
Revegetation				
Erosion/Sediment Controls				
Vehicle Exits				
Material Areas				
Equipment Areas				
Concrete Rinse				
Construction Debris				
Trash Receptacles				
Infrastructure				
Roadway Clearing				
Utility Clearing				
Roadway Grading				
Utility Construction				
Drainage Construction				
Roadway Base				
Roadway Surfaces				
Site Cleanups				
Building				
Clearing for Building				
Foundation Grading				
Utility Construction				
Foundation Construction				
Building Construction				
Site Grading				
Site Cleanup			,	
*Indicate N/A where measure does not apply	/.			
By my signature below, I certify that all iten	ns are	acceptable and the project site is in compliance v	with SWPPP.	
Inspector's Name		Inspector's Signature		
Name of Owner/Operator (Firm) Note: Inspector is to attach a brief statemen	nt of his	Date s qualifications to this report.	a	

BMP INSPECTION REPORT PROJECT CONSTRUCTION ACTIVITY MILESTONE DATES

Date when major site grading activities begin:		
Construction Activity		<u>Date</u>
	_	
	_	
	_	
	_	
Dates when construction activities temporarily or per	manently cease	on all or a portion of the project:
Construction Activity		<u>Date</u>
	_	
	_	
	_	
	_	
	_	
Date when stabilization measures are initiated:		
Stabilization Activity	_	<u>Date</u>
	_	
	_	
		-

ATTACHMENT J Schedule of Interim and Permanent Soil Stabilization Practices

- Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.
- 2. Permanent seeding of individually disturbed areas shall be performed when infrastructure construction has been completed.
- 3. Permanent sodding and mulching of landscape areas shall occur at or near the completion of the project.
- 4. During construction, contractors shall, to the maximum extent possible, limit their construction activities to areas of construction as noted on the plans in an attempt to preserve as much natural vegetation as possible.

Seeding & Mulching Specifications

- 1. All seed must meet requirements of the Texas Seed Law including the labeling requirements. These labels shall show purity, germination, name and type of seed. Seed furnished shall be of the previous season's crop for the date of the project, and the date of analysis shown on each bag shall be within nine (9) months of the time of use on the project. Bermuda grass shall be hulled and treated and have a purity of 95% and germination of no less than 90%. Each variety of seed shall be furnished and delivered in separate bags or containers. A sample of each variety of seed shall be furnished for analysis and testing when directed by the Owner.
- 2. <u>Annual Rye grass</u> will be free of Johnson grass, field bindweed, dodder seed, and free of other seed to the limits allowable under the Federal Seed Act and applicable Texas Seed Law. Annual Rye grass will be added into slurry between October 1 through March 15.
- 3. <u>Wood Cellulose Fiber Mulch</u>. Wood cellulose fiber mulch shall be natural cellulose fiber mulch produced from grinding clean, whole wood chips, or fiber produced from ground newsprint with a labeled ash content not to exceed 7%. The mulch shall be designed for use in conventional mechanical planting, hydraulic planting of seed or hydraulic mulching of grass seed, either alone or with fertilizer and other additives. The mulch shall be that when applied, the material shall form a strong, moisture-

retaining mat without the need of an asphalt binder. The mulch material will also be dyed with a green color to assist in determining coverage and to provide an immediate pleasing appearance. The wood cellulose fiber is also required to be dispersed rapidly in water to form homogeneous slurry and remain in such state when agitated in the hydraulic mulching unit with specified materials.

4. <u>Straw Mulch or Hay Mulch</u>. Straw mulch shall be oat, wheat, or rice straw. Hay mulch shall be prairie grass, Bermuda grass or other hay as approved by the Owner. The straw mulch or hay mulch shall be free of Johnson grass or other noxious weeds and foreign materials. It shall be kept in a dry condition and shall not be molded or rotted.

Optimum Planting Dates	Common Names	Rate, lbs./acre	
February 1 – May 1	Bermuda Grass	1.5	
September 1 – November 30	Tall Fescue Oats Wheat (Red, Winter)	4.0 21.0* 30.0	
September 1 – November 30	Hairy Vetch	8.0	
May 1 – August 31	Foxtail Millet	30.0	



PERMANENT STORMWATER SECTION

Permanent Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

executive director approval. The application was prepared by:
Print Name of Customer/Agent: Jose Lozano, P.E.
Date: <u>10/31/</u> 2023
Signature of Customer/Agent Regulared Entity Name: Vista at Sonoma
Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

1.	X Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
	□ N/A
2.	X These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
	\overline{X} The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

	A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is:
	□ N/A
3.	Nowners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.
	□ N/A
4.	Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
	The site will be used for low density single-family residential development and has
	 20% or less impervious cover. The site will be used for low density single-family residential development but has more than 20% impervious cover. The site will not be used for low density single-family residential development.
5.	The executive director may waive the requirement for other permanent BMPs for multifamily residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
	Attachment A - 20% or Less Impervious Cover Waiver. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached. The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover. The site will not be used for multi-family residential developments, schools, or small
6	business sites. X Attachment B - BMPs for Upgradient Stormwater.

		X A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.
		 No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached. Permanent BMPs or measures are not required to prevent pollution of surface
		water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.
7.	Χ	Attachment C - BMPs for On-site Stormwater.
		 A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached. Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.
8.	X	Attachment D - BMPs for Surface Streams . A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.
		N/A
9.	X	The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.
		X The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.
		Attachment E - Request to Seal Features. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.
10.	X	Attachment F - Construction Plans . All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:
		X Design calculations (TSS removal calculations) X TCEQ construction notes X All geologic features X All proposed structural BMP(s) plans and specifications
		N/A
	-	

11. X Attachment G - Inspection, Maintenance, Repair and Retrofit Plan. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:
X Prepared and certified by the engineer designing the permanent BMPs and measures
\boxed{X} Signed by the owner or responsible party \boxed{X} Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
X A discussion of record keeping procedures
□ N/A
12. Attachment H - Pilot-Scale Field Testing Plan. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.
X N/A
13. X Attachment I -Measures for Minimizing Surface Stream Contamination. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.
□ N/A
Responsibility for Maintenance of Permanent BMP(s)
Responsibility for maintenance of best management practices and measures after construction is complete.
14. The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.
X N/A
15. X A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.
□ N/A

ATTACHMENT A 20% or Less Impervious Cover Declaration

Not applicable to this project

ATTACHMENT B BMPs for Upgradient Stormwater

The topography of the site is such that drainage patterns of the surrounding property flow away from the property; consequently, upgradient runoff across the subject tract does not occur.

ATTACHMENT C BMPs for On-site Stormwater

Vegetative filter strips (VFS) have been designed in accordance with TCEQ's Technical Guidance Manual (TGM) RG-348 (2005), which indicate a minimum of 80% of the increased TSS load from the entire project be removed.

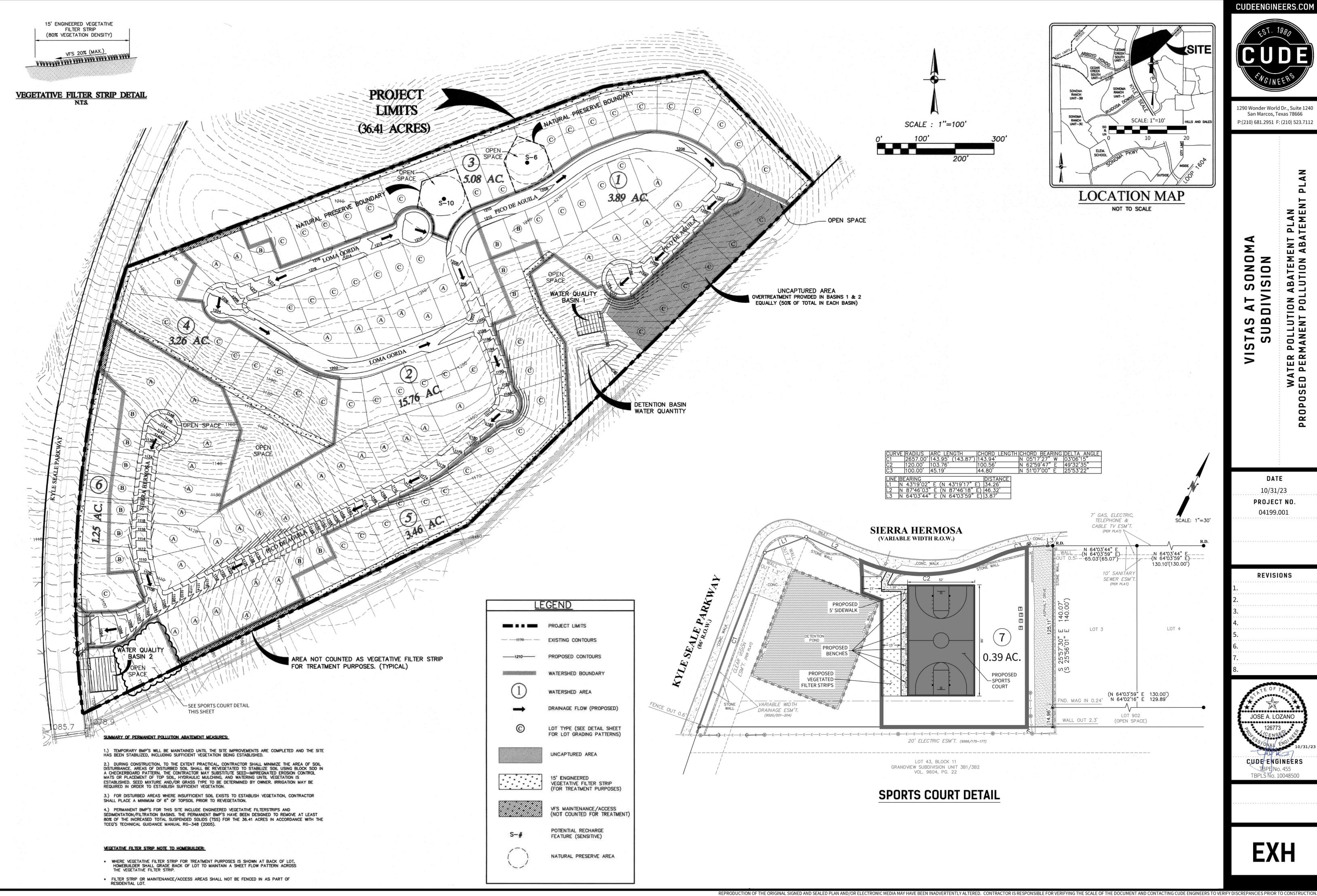
ATTACHMENT D BMPs for Surface Streams

Vegetative filter strips (VFS) have been designed in accordance with TCEQ's Technical Guidance Manual (TGM) RG-348 (2005), which indicate a minimum of 80% of the increased TSS load from the entire project be removed.

ATTACHMENT E Request to Seal Features

Not applicable to this project

ATTACHMENT F Construction Plans



ATTACHMENT G Inspection, Maintenance, Repair and Retrofit Plan

Extended Detention Basins

Extended detention basins have moderate to high maintenance requirements, depending on the extent to which future maintenance needs are anticipated during the design stage. Responsibilities for both routine and nonroutine maintenance tasks need to be clearly understood and enforced. If regular maintenance and inspections are not undertaken, the basin will not achieve its intended purposes.

There are many factors that may affect the basin's operation and that should be periodically checked. These factors can include mowing, control of pond vegetation, removal of accumulated bottom sediments, removal of debris from all inflow and outflow structures, unclogging of orifice perforations, and the upkeep of all physical structures that are within the detention pond area. One should conduct periodic inspections and after each significant storm. Remove floatables and correct erosion problems in the pond slopes and bottom. Pay particular attention to the outlet control perforations for signs of clogging. If the orifices are clogged, remove sediment and other debris. The generic aspects that must be considered in the maintenance plan for a detention facility are as follows:

- Inspections. Basins should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. When possible, inspections should be conducted during wet weather to determine if the pond is meeting the target detention times. In particular, the extended detention control device should be regularly inspected for evidence of clogging, or conversely, for too rapid a release. If the design drawdown times are exceeded by more than 24 hours, then repairs should be scheduled immediately. The upper stage pilot channel, if any, and its flow path to the lower stage should be checked for erosion problems. During each inspection, erosion areas inside and downstream of the BMP should be identified and repaired or revegetated immediately.
- Mowing. The upper stage, side slopes, embankment, and emergency spillway of an
 extended detention basin must be mowed regularly to discourage woody growth and
 control weeds. Grass areas in and around basins should be mowed at least twice
 annually to limit vegetation height to 18 inches. More frequent mowing to maintain
 aesthetic appeal may be necessary in landscaped areas. When mowing of grass is
 performed, a mulching mower should be used, or grass clippings should be caught
 and removed.
- Debris and Litter Removal. Debris and litter will accumulate near the extended detention control device and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can eventually clog the control device or riser.

- Erosion Control. The pond side slopes, emergency spillway, and embankment all may
 periodically suffer from slumping and erosion, although this should not occur often if
 the soils are properly compacted during construction. Regrading and revegetation
 may be required to correct the problems. Similarly, the channel connecting an upper
 stage with a lower stage may periodically need to be replaced or repaired.
- Structural Repairs and Replacement. With each inspection, any damage to the
 structural elements of the system (pipes, concrete drainage structures, retaining walls,
 etc.) should be identified and repaired immediately. These repairs should include
 patching of cracked concrete, sealing of voids, and removal of vegetation from cracks
 and joints. The various inlet/outlet and riser works in a basin will eventually deteriorate
 and must be replaced. Public works experts have estimated that corrugated metal
 pipe (CMP) has a useful life of about 25 yr, whereas reinforced concrete barrels and
 risers may last from 50 to 75 yr.
- Nuisance Control. Standing water (not desired in a extended detention basin) or soggy conditions within the lower stage of the basin can create nuisance conditions for nearby residents. Odors, mosquitoes, weeds, and litter are all occasionally perceived to be problems. Most of these problems are generally a sign that regular inspections and maintenance are not being performed (e.g., mowing, debris removal, clearing the outlet control device).
- Sediment Removal. When properly designed, dry extended detention basins will accumulate quantities of sediment over time. Sediment accumulation is a serious maintenance concern in extended detention dry ponds for several reasons. First, the sediment gradually reduces available stormwater management storage capacity within the basin. Second, unlike wet extended detention basins (which have a permanent pool to conceal deposited sediments), sediment accumulation can make dry extended detention basins very unsightly. Third, and perhaps most importantly, sediment tends to accumulate around the control device. Sediment deposition increases the risk that the orifice will become clogged, and gradually reduces storage capacity reserved for pollutant removal. Sediment can also be resuspended if allowed to accumulate over time and escape through the hydraulic control to downstream channels and streams. For these reasons, accumulated sediment needs to be removed from the lower stage when sediment buildup fills 20% of the volume of the basin or at least every 10 years.

Vegetative Filter Strips

Once a vegetated area is well established, little additional maintenance is generally necessary. The key to establishing a viable vegetated feature is the care and maintenance it receives in the first few months after it is planted. Once established, all vegetated BMPs require some basic maintenance to insure the health of the plants including:

- Pest Management. An Integrated Pest Management (IPM) Plan should be developed
 for vegetated areas. This plan should specify how problem insects and weeds will be
 controlled with minimal or no use of insecticides and herbicides.
- Seasonal Mowing and Lawn Care. If the filter strip is made up of turf grass, it should be
 mowed as needed to limit vegetation height to 4 inches, using a mulching mower (or
 removal of clippings). If native grasses are used, the filter may require less frequent
 mowing, but a minimum of twice annually. Grass clippings and brush debris should not
 be deposited on vegetated filter strip areas. Regular mowing should also include
 weed control practices, however herbicide use should be kept to a minimum
 (Urbonas et al., 1992). Healthy grass can be maintained without using fertilizers
 because runoff usually contains sufficient nutrients. Irrigation of the site can help
 assure a dense and healthy vegetative cover.
- Inspection. Inspect filter strips at least twice annually for erosion or damage to vegetation; however, additional inspection after periods of heavy runoff is most desirable. The strip should be checked for uniformity of grass cover, debris and litter, and areas of sediment accumulation. More frequent inspections of the grass cover during the first few years after establishment will help to determine if any problems are developing, and to plan for long-term restorative maintenance needs. Bare spots and areas of erosion identified during semi-annual inspections must be replanted and restored to meet specifications. Construction of a level spreader device may be necessary to reestablish shallow overland flow.
- Debris and Litter Removal. Trash tends to accumulate in vegetated areas, particularly
 along highways. Any filter strip structures (i.e. level spreaders) should be kept free of
 obstructions to reduce floatables being flushed downstream, and for aesthetic
 reasons. The need for this practice is determined through periodic inspection, but
 should be performed no less than 4 times per year.
- Sediment Removal. Sediment removal is not normally required in filter strips, since the
 vegetation normally grows through it and binds it to the soil. However, sediment may
 accumulate along the upstream boundary of the strip preventing uniform overland
 flow. Excess sediment should be removed by hand or with flat-bottomed shovels.
 Depending on the type of pollutants accumulated, some sediments may be
 considered hazardous waste or toxic material, and are therefore subject to restrictions
 for disposal.
- Grass Reseeding and Mulching. A healthy dense grass should be maintained on the
 filter strip. If areas are eroded, they should be filled, compacted, and reseeded so that
 the final grade is level. Grass damaged during the sediment removal process should be
 promptly replaced using the same seed mix used during filter strip establishment.
 If possible, flow should be diverted from the damaged areas until the grass is firmly
 established. Bare spots and areas of erosion identified during semi-annual inspections
 must be replanted and restored to meet specifications. Corrective maintenance, such

as weeding or replanting should be done more frequently in the first two to three years after installation to ensure stabilization. Dense vegetation may require irrigation immediately after planting, and during particularly dry periods, particularly as the vegetation is initially established.

Print Name of Customer/Agent: Jose Lozano, P.E.

Date: 10/31/23

Signature of Customer/Agent:

ATTACHMENT H Pilot-Scale Field Testing Plan

Not applicable to this project

ATTACHMENT I Measures for Minimizing Surface Stream Contamination

Silt fence has been specified downstream of the areas of proposed soil disturbance to provide pollution abatement of onsite flows. Bagged gravel filters will be utilized to minimize contamination entering storm drainage facilities. Rock berms will be implemented to abate sediment contamination for drainage facilities exiting the site. Temporary BMPs will be maintained and kept onsite until re-growth of the natural vegetation occurs to provide the required soil stabilization in the event any areas are more than minimally disturbed. If required, appropriate seeding measures will be employed.



AGENT AUTHORIZATIONS, FORMS & FEES

Agent Authorization Form

For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

1	David Gonzalez	
	. Print Name	
	President	
	Title - Owner/President/Other	
of	Vistas at Sonoma Homeowners Association, Inc.	
	Corporation/Partnership/Entity Name	
have authorized	Jose Lozano, P.E.	
	Print Name of Agent/Engineer	
of	M.W. Cude Engineers, L.L.C.	
	Print Name of Firm	

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

- 1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
- For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
- Application fees are due and payable at the time the application is submitted. The
 application fee must be sent to the TCEQ cashier or to the appropriate regional office.
 The application will not be considered until the correct fee is received by the
 commission.
- 4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
- 5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE: Applicant's Signature THE STATE OF TEXAS § County of BCXaV BEFORE ME, the undersigned authority, on this day personally appeared _ to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed. GIVEN under my hand and seal of office on this 12 Hay of MY COMMISSION EXPIRES: _ SAUSAN TOHMAZ

> My Notary ID # 130683599 Expires June 1, 2024

Application Fee Form

Texas Commission on Environmental Quality Name of Proposed Regulated Entity: Vistas at Sonoma Regulated Entity Location: 0.5 miles north of Loop 1604 and Bandera Road intersection Name of Customer: VISTAS AT SONOMA HOMEOWNERS ASSOCIATION INC Contact Person: Jose Lozano, P.E. Phone: 210-681-2951 Customer Reference Number (if issued):CN CN605658350 Regulated Entity Reference Number (if issued):RN RN105116677 Austin Regional Office (3373) Havs Travis Williamson San Antonio Regional Office (3362) X Bexar Medina Uvalde Comal Kinney Application fees must be paid by check, certified check, or money order, payable to the Texas Commission on Environmental Quality. Your canceled check will serve as your receipt. This form must be submitted with your fee payment. This payment is being submitted to: Austin Regional Office X | San Antonio Regional Office Mailed to: TCEQ - Cashier Overnight Delivery to: TCEQ - Cashier **Revenues Section** 12100 Park 35 Circle Mail Code 214 Building A, 3rd Floor P.O. Box 13088 Austin, TX 78753 Austin, TX 78711-3088 (512)239-0357 Site Location (Check All That Apply): X Recharge Zone Contributing Zone Transition Zone Type of Plan Size Fee Due Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling \$ Acres Water Pollution Abatement Plan, Contributing Zone 0.39 Plan: Multiple Single Family Residential and Parks Acres \$ 1,500 Water Pollution Abatement Plan, Contributing Zone \$ Plan: Non-residential Acres Sewage Collection System \$ L.F. Lift Stations without sewer lines Acres \$ Underground or Aboveground Storage Tank Facility \$ Tanks Piping System(s)(only) Each \$ Exception Each Extension of Time Each Date: 10/31/23 Signature:

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	Project Area in Acres	Fee
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial, institutional,	< 1	\$3,000
multi-family residential, schools, and other sites	1 < 5	\$4,000
where regulated activities will occur)	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

Organized Sewage Collection Systems and Modifications

Project	Cost per Linear Foot	Minimum Fee- Maximum Fee
Sewage Collection Systems	\$0.50	\$650 - \$6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	Cost per Tank or Piping System	Minimum Fee- Maximum Fee
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

Exception Requests

Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee
Extension of Time Request	\$150



CORE DATA SECTION

ZIP+4

20. Fax Number (if applicable)



15. Mailing

City

18. Telephone Number

16. Country Mailing Information (if outside USA)

Address:

TCEQ Core Data Form

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

1. Reason for Submission (If other is check	ed please describe in space provided.)				
New Permit, Registration or Authorization	n (Core Data Form should be submitted w	ith the program application.)		
Renewal (Core Data Form should be sub	nitted with the renewal form)	☐ Other			
2. Customer Reference Number (if issued	Follow this link to searc	-			
CN CN605658350	Central Registry**	RN	RN RN105116677		
ECTION II: Custome 4. General Customer Information	5. Effective Date for Customer In	formation Updates (mm/	dd/yyyy)		
☐ New Customer ☐ ☐ ☐ ☐ Change in Legal Name (Verifiable with the	Update to Customer Information Fexas Secretary of State or Texas Comptro	☐ Change in Regulated ller of Public Accounts)	Entity Own	ership	
The Customer Name submitted here ma (SOS) or Texas Comptroller of Public Acc	T Danielius	n what is current and act	ive with ti	he Texas Secretary of State	
Customer Legal Name (If an individual a	print last name first; ea: Doe John	If now Custom	ar antar nr	quique Cuetamar balaur	
6. Customer Legal Name (If an individual, p	orint last name first: eg: Doe, John)	If new Custom	er, enter pr	evious Customer below:	
	8. TX State Tax ID (11 digits)	9. Federal Ta (9 digits)	in in	10. DUNS Number (if applicable)	
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Ta	ax ID	10. DUNS Number (if	
7. TX SOS/CPA Filing Number 11. Type of Customer:	8. TX State Tax ID (11 digits)	9. Federal Ta (9 digits)	ax ID	10. DUNS Number (if applicable)	
7. TX SOS/CPA Filing Number 1.1. Type of Customer: Corpo	8. TX State Tax ID (11 digits)	9. Federal Ta (9 digits) Individual Sole Proprietorship	Partne	10. DUNS Number (if applicable)	
7. TX SOS/CPA Filing Number 11. Type of Customer: Corpo Government: City County Federal 12. Number of Employees	8. TX State Tax ID (11 digits) ration Local State Other	9. Federal Ta (9 digits) Individual Sole Proprietorship	Partne	10. DUNS Number (if applicable) ership: General Limited	
7. TX SOS/CPA Filing Number 11. Type of Customer: Corpo Government: City County Federal [12. Number of Employees	8. TX State Tax ID (11 digits) ration Local State Other 1-500 501 and higher	9. Federal Ta (9 digits) Individual Sole Proprietorship 13. Independ	Partne	10. DUNS Number (if applicable) ership: General Limited her:	

TCEQ-10400 (11/22) Page 1 of 3

19. Extension or Code

17. E-Mail Address (if applicable)

State

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SECTION III: Re	gulated Entity Informa	<u>tion</u>	
21. General Regulated Entity	Information (If 'New Regulated Entity" is selected,	a new permit application is also required.)	
DN Paradeted Father DI			

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☑ Update to Regulated Entity Information								
The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).								
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)								
23. Street Address of the Regulated Entity:								
(No PO Boxes)	City		State	ZIP			ZIP + 4	
24. County								
		If no Street	Address is provided	l, fields 25-28 a	re required			
25. Description to Southeast of the intersection of Kyle Seale Pkwy and Sierra Hermosa, near 8486 Sierra Hermosa, San Antonio, TX 78255								
26. Nearest City			<u> </u>	*	State		Nea	rest ZIP Code
San Antonio Texas 78255								78255
Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).								
27. Latitude (N) In Decim	al:			28. Longitud	de (W) In D	ecimal:		
Degrees	Minutes	Se	econds	Degrees		Minutes		Seconds
29	35		34.2	98		39		07.2
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)		3.	31. Primary NAICS Code (5 or 6 digits)		32. Secondary NAICS Code (5 or 6 digits)		CS Code
						(5 01 0 016	,ics _j	
						(5 5) 6 4.15	,,,,,	
33. What is the Primary E	Business of th	nis entity? (Do n	not repeat the SIC or NA	AICS description.)	,	(3.5) 6 416	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
33. What is the Primary E	Business of th	nis entity? (Do n	oot repeat the SIC or NA	AICS description.)	\ \	(5.5) 6.5)	ita)	
33. What is the Primary E	Business of th	nis entity? (Do n	not repeat the SIC or Ni	AICS description.)			its)	
		nis entity? (Do n						
34. Mailing Address:	Business of the	nis entity? (Do n	not repeat the SIC or NA	AICS description.)	P		ZIP + 4	
34. Mailing		nis entity? (Do n			P			
34. Mailing Address:				ZI		mber (if applicab	ZIP+4	

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

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☐ Dam Safety	Districts	Edwards Aquifer	Emissions Inventory Air	Industrial Hazardous Waste
Municipal Solid Waste	New Source Review Air	OSSF	Petroleum Storage Tank	□ pws

Sludge	Storm Water	☐ Title V Air	Tires	Used Oil
☐ Voluntary Cleanup	Wastewater	☐ Wastewater Agriculture	☐ Water Rights	Other:

SECTION IV: Preparer Information

40. Name:	Jose Lozano, P.E.			41. Title:	Senior Project Manager
42. Telephone	Number	43. Ext./Code	t./Code 44. Fax Number 45. E-Mail Address		Address
(210) 6	81-2951	301	(210) 523-7112	jlozan	o@cudeengineers.com

SECTION V: Authorized Signature

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

Company:	M.W. Cude Engineers, L.L.C.	ior Project Manager			
Name (In Print):	Jose Lozano, P.E.			Phone:	(210) 681-2951
Signature:				Date:	10/31/23

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