WPAP MODIFICATION

Atlas Ranch Phase 1, Section 1 with Hike & Bike Trail

Prepared for: Atlas Ranch Holdings, L.P.

Prepared by: Gray Engineering, Inc.

TBPE Registered Firm #: 2946

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.

2. 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.

6. 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.

2. 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: Atlas Ranch Holdings, L.P.						**2. Regulated Entity No.:** 111613758			
3. Customer Name: Matt Michelsen						**4. Customer No.:** 606063634			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension		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-residential			**8. Site (acres):**		895.94 AC	
9. Application Fee:	$10,000		**10. Permanent BMP(s):**			Batch Detention Pond (1), VFS			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			South Salado 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%20GWCD%20map.pdf

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	_X_
Region (1 req.)	___	___	_X_
County(ies)	___	___	_X_
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San 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.
Nick Marino, P.E. Print Name of Customer/Authorized Agent
NR Marino 10/9/25 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:		Distribution Date:		
EAPP File Number:		Complex:		
Admin. Review(s) (No.):		No. AR Rounds:		
Delinquent Fees (Y/N):		Review Time Spent:		
Lat./Long. Verified:		SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):		Fee Check:	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):			Signed (Y/N):	
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):	

General Information Form

Texas Commission on Environmental Quality

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:

Print Name of Customer/Agent: Nick Marino, P.E.

Date: 10/9/2025

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: Atlas Ranch
2. County: Williamson
3. Stream Basin: South Salado Creek
4. Groundwater Conservation District (If applicable): N/A
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

   ☒ WPAP
   ☐ SCS
   ☒ Modification
   ☐ AST
   ☐ UST
   ☐ Exception Request

7. Customer (Applicant):

   Contact Person: Matt Michelsen
   Entity: Atlas Ranch Holdings, LP
   Mailing Address: 115 E. 5th St #200
   City, State: Austin, TX Zip: 78701
   Telephone: (858) 204-4100 FAX: N/A
   Email Address: mcm@michelsen.com

8. Agent/Representative (If any):

   Contact Person: Nick Marino, P.E.
   Entity: Gray Engineering, Inc.
   Mailing Address: 8834 N. Capital of Texas Highway, Suite 140
   City, State: Austin, TX Zip: 78759
   Telephone: (469) 834-8611 FAX: N/A
   Email Address: nmarino@grayengineeringinc.com

9. Project Location:

   ☐ The project site is located inside the city limits of _____.
   ☐ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
   ☒ The project site is not located within any city's limits or ETJ.

10. ☐ 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.

    Just northwest of the intersection of County Road 305 and 344 approximately 2 miles northwest of the City of Jarrell

11. ☒ **Attachment A – Road Map**. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.

12. ☒ **Attachment B - USGS / Edwards Recharge Zone Map**. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:

    ☒ Project site boundaries.
    ☒ USGS Quadrangle Name(s).
    ☐ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
    ☐ Drainage path from the project site to the boundary of the Recharge Zone.

13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned**. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

☒ Survey staking will be completed by this date: _____

14. ☒ **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:

    ☒ Area of the site
    ☒ Offsite areas
    ☒ Impervious cover
    ☒ Permanent BMP(s)
    ☒ 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
    ☒ Existing residential site
    ☐ Existing paved and/or unpaved roads
    ☒ Undeveloped (Cleared)
    ☐ Undeveloped (Undisturbed/Uncleared)
    ☒ Other: Former Quarry

Prohibited Activities

16. ☒ I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:

    (1) 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 I 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 the state that would create additional pollutant loading.

17. ☒ 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 Injection Control);

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

(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 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. ☒ 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)

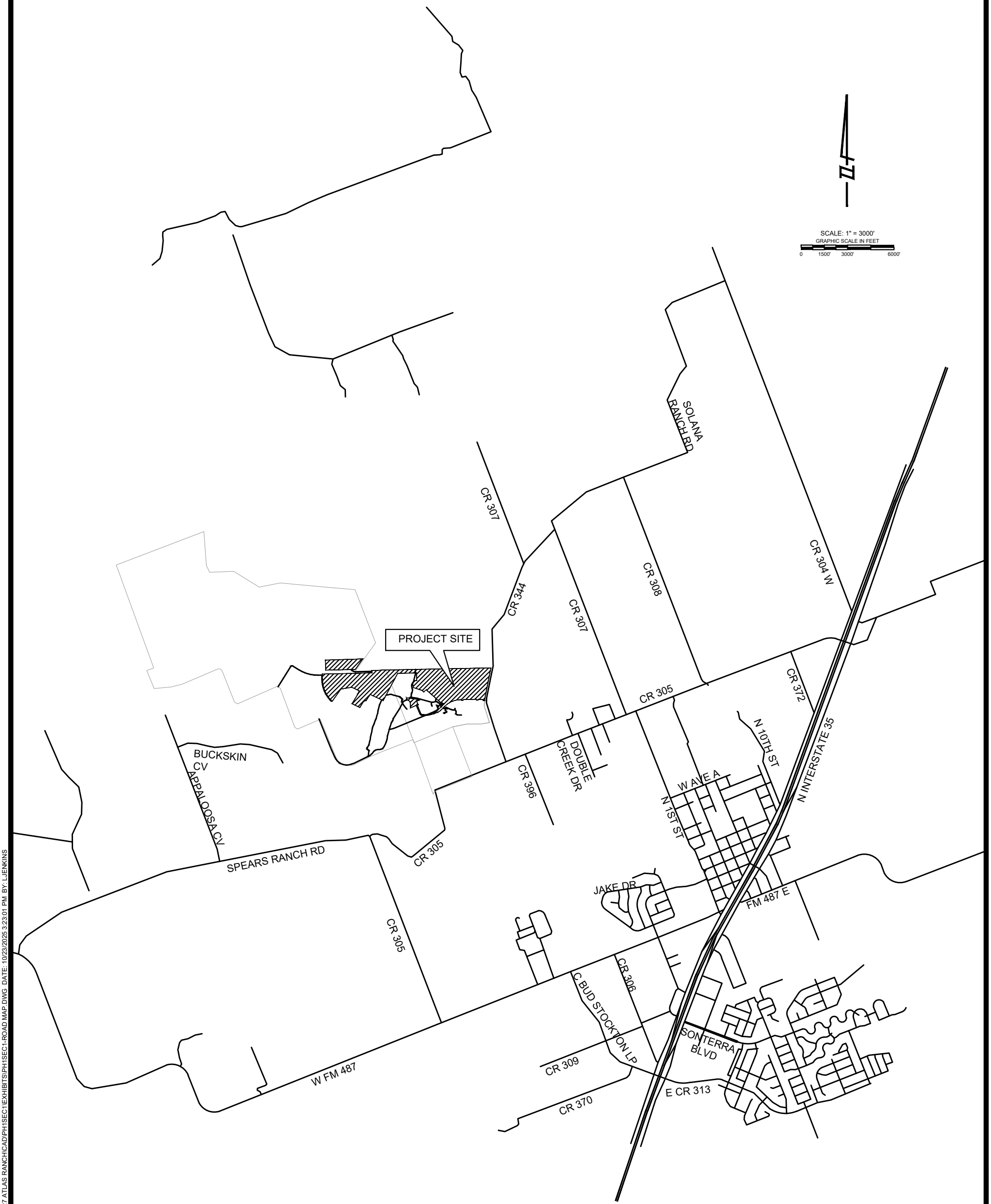
20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

21. ☒ 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.

ATLAS RANCH - PHASE 1 SECTION 1

WATER POLLUTION ABATEMENT PLAN

ROAD MAP



PROJECT NO.	11727	DRAWN BY:	KEL
DATE:	06/04/2024	CHECKED BY:	MZ

GRAY ENGINEERING

8834 N. Capital of Texas Hwy.
Austin, Texas 78759
Suite 140
(512)452-0371
FAX(512)454-9933
TBPELS FIRM #2946

USGS
science for a changing world

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

The National Map
OnDemand Topo

7.5-MINUTE TOPO QUADRANGLE
Custom Extent
7.5-MINUTE TOPO

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R
Data is provided by The National Map (TNM), is the best available at the time of map generation, and includes data content from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) Metadata for additional source data information.

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands. Temporal changes may have occurred since these data were collected and some data may no longer represent actual surface conditions.

Learn About The National Map: https://nationalmap.gov

MN
GN
0°42´ 12 MILS
3°25´ 61 MILS
UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

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

SCALE 1:24 000

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

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

TEXAS
QUADRANGLE LOCATION

Youngsport	Salado
Cobbs Cavern	Jarrell

ADJOINING QUADRANGLES

ROAD CLASSIFICATION

Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD

Interstate Route US Route State Route

7.5-MINUTE TOPO, TX
2023

Attachment C – Project Description

Atlas Ranch Phase 1, Section 1 lies on multiple tracts totaling 895.94-acres in Williamson County, Texas. The site is located approximately 0.88 miles northwest of the intersection of CR-305 and CR-344.

Approximately 6.527 acres of existing impervious cover lie on the site. This impervious cover includes various buildings and structures, as well as an existing road. As part of the 6.527 acres of the existing impervious cover, 3.725 acres lie on the +/- 683-acre tract that is not yet being developed. This acreage has been included in the pre-development impervious cover, however, will not be included in treatment for Phase 1, Section 1. This tract will be developed on in a future phase, and the 3.725 acres of impervious cover shall be accounted for then.

A total of 69.19 acres will be disturbed in Phase 1, Section 1 by regulated activities such as grading, utility installation, road construction, wastewater treatment plant construction, and home construction for 225 single-family residential lots. An additional 37.02 acres will be reserved for a TLAP, where Phase 1, Section 1 will discharge to. These disturbed areas will be accounted for with various erosion controls, as seen in the Erosion Control sheets from the Construction Plans provided. Thus, the total area of disturbance equates to 106.21 acres. The additional disturbed area proposed with this modification includes 18.12 acres for grading and paving associated with the hike and bike trail. A new erosion control sheet has been provided for this area.

In total, the site will contain 6.527 acres of impervious area at pre-development. Post residential development, and pre hike and bike trail, the project will contain 32.447 acres of impervious area, while the hike and bike trail will add 4.45 acres of impervious area, for a total site, post development impervious area of 36.897 acres. Per the Existing Conditions and Demolition Plan sheets included in this submittal, a portion of the existing access road and some of the existing structures will be removed, totaling 0.233 acres. The remaining existing acreage will fall within future phases of Atlas Ranch. The post development impervious cover within the Phase 1, Section 1 disturbed area is 33.853 acres.

Phase 1, Section 1 includes one (1) batch detention pond and one (1) vegetated filter strip. The hike and bike trail will add additional VFS(s). At full buildout, Batch Detention Pond A will receive 42.07 acres of runoff with 24.34 acres of impervious cover. This equates to a required TSS removal of 21,019 pounds, which Pond A is sized to remove.

VFS 1 receives 2.64 acres of runoff with 1.77 acres of impervious cover. This equates to a required TSS removal of 1,541 pounds, however, VFS 1 will remove 1,679 pounds.

The 1.80 acres of drainage flowing offsite includes 0.07 acres of existing road that will be removed, yielding a zero removal requirement.

The hike and bike trail will consist of 4.45 acres of impervious cover, requiring 3,835 pounds of TSS removal. 0.25 acres will flow offsite untreated, while 4.19 acres will flow to VFS and provide 3,948 pounds of TSS removal.

In total, the 895.94-acre site contains 36.897 acres of impervious cover with a required 26,395 pounds of TSS removal. The proposed BMPs will remove 26,832 pounds of TSS.

The Atlas Ranch tract once operated as an unregulated quarry site. It was previously registered with TCEQ under the name “Jarrell Site” under the customer name Superior Stone Inc, CN602807927. Quarry activities have ceased and the site has been filled to best mimic previously existing drainage patterns.

A WPAP for the cleanup, remediation, and excavation and embankment of the site has been submitted and approved. It was approved on February 17, 2023 under the Edwards Aquifer Protection Program ID No. 11003384 and Regulated Entity No. RN111613758.

A WPAP for the residential portion of the development, including roads, lots, and utilities, was previously approved on January 24, 2025 under the Edwards Aquifer Protection Program ID No. 11004203 and Regulated Entity No. RN111613758.

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), 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

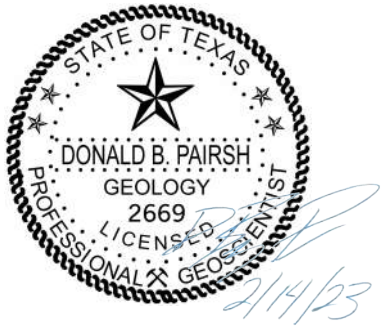
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: D Bryan Pairsh Telephone: 512-535-4368

Date: 02/14/2023 (original - 11/11/2022) Fax: 512-535-4451

Representing: Capitol Environmental, Inc TBPG Firm Registration #50389 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Atlas Ranch

Project Information

1. Date(s) Geologic Assessment was performed: 01/21/2022 thru 01/27/2022 and 02/10/2023
2. Type of Project:
   - ☒ WPAP
   - ☒ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Eckrant stony clay (EeB), 0-3 % slope	D	1-10'
Eckrant-Rock outcrop (ErE), rolling	D	1-10'
Georgetown stony clay loam (GsB), 1-3 % slopes	D	1-10'
Georgetown clay loam (GeB), 0-2% slopes	D	1-10'
Denton silty clay (DnB), 1-3% slopes	D	1-10'
Doss silty clay (DoC), 1-5% slopes	D	1-10’
Oakalla soils, frequently flooded (Of)	B	1-10’

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1”: 400'

   Applicant's Site Plan Scale: 1" = 200'
   Site Geologic Map Scale: 1" = 200'
   Site Soils Map Scale (if more than 1 soil type): 1" = 200'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.

11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.

12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☐ Geologic or manmade features were not discovered on the project site during the field investigation.

13. ☐ The Recharge Zone boundary is shown and labeled, if appropriate.

14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☒ There are 2 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    ☐ 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 Chapter 76.
    ☐ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☒ 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.

Attachment A – Geologic Table

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: ATLAS RANCH

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
F-1	30.841529	-97.646050	WV	20	Ked	inaccessible							C	5	25	X		X		HILLSIDE
F-2	30.842616	-97.637130	SC	20	Ked	0.3	0.3	1					O	10	30	X		X		HILLTOP
W-3	30.839619	-97.632931	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
W-4	30.839124	-97.632465	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
Q-5	30.839550	-97.647891	MB	30	Ked	Limits shown on map				Quarry			C	5	35	X			X	HILLTOP
Q-6	30.838728	-97.648947	MB	30	Ked					Quarry			C	5	35	X			X	HILLTOP
Q-7	30.836989	-97.648026	MB	30	Ked					Quarry			C	5	35	X			X	HILLTOP
S-8	30.840950	-97.641527	O	5	Ked				20	Salado Creek			C	35	40		X		X	STREAMBED
S-9	30.840729	-97.638334	O	5	Ked				295	Salado Cr Trib			C	35	40		X		X	STREAMBED
F-42	30.841112	-97.646610	WV	20	Ked	inaccessible							C	5	25	X		X		HILLSIDE
F-43	30.840289	-97.647184	WV	20	Ked	inaccessible							C	5	25	X		X		HILLSIDE
F-44	30.839995	-97.647360	WV	20	Ked	inaccessible							C	5	25	X		X		HILLSIDE
F-45	30.839710	-97.647580	WV	20	Ked	inaccessible							C	5	25	X		X		HILLSIDE
F-46	30.839423	-97.647813	WV	20	Ked	inaccessible							C	5	25	X		X		HILLSIDE

***DATUM:** NAD 83 StatePlane Texas Central

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.
My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date: 02/14/2023

Sheet: 1 of 1

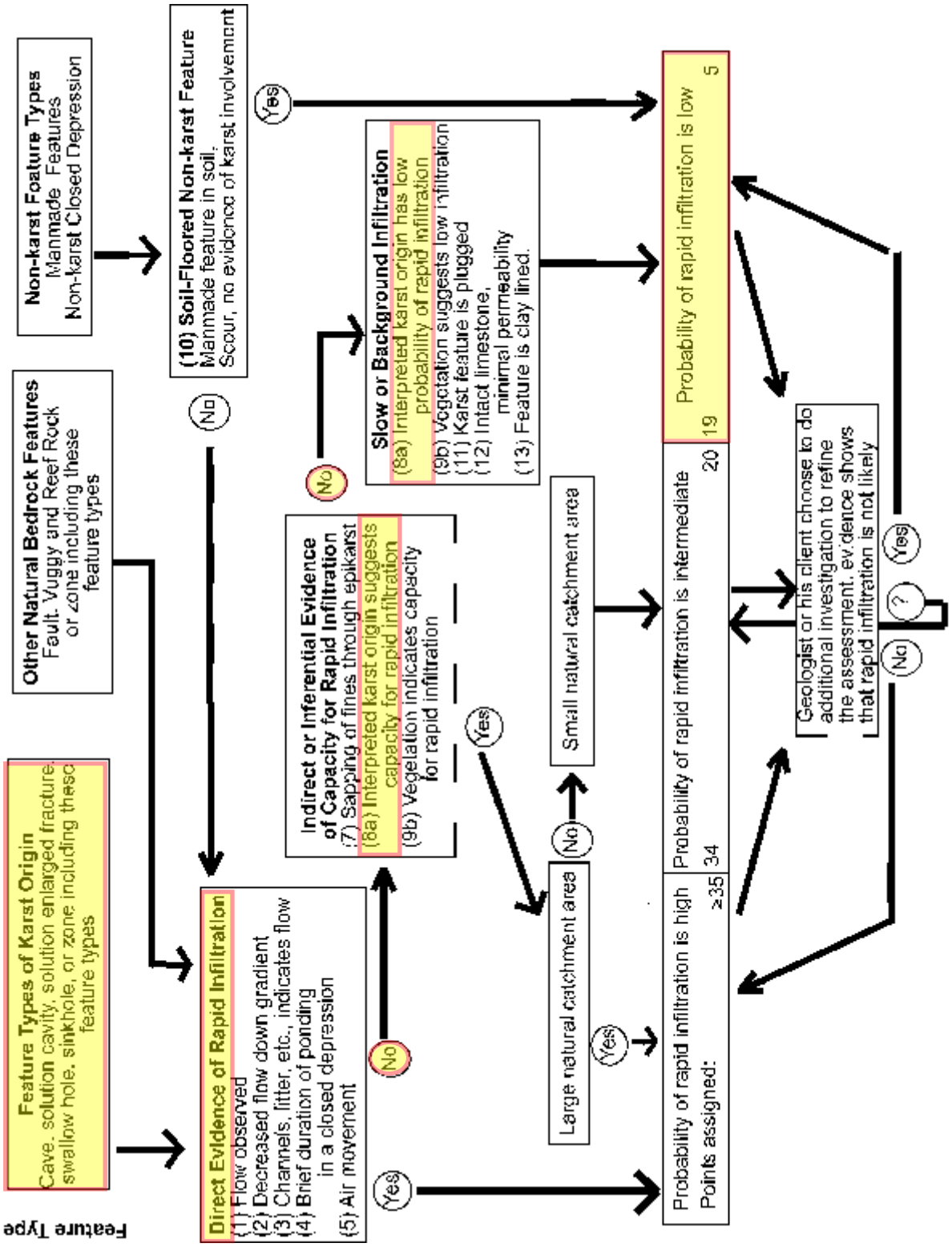
STATE OF TEXAS
DONALD B. PAIRSH
GEOLOGY
2669
LICENSED
PROFESSIONAL GEOSCIENTIST

2/14/23

TCEQ-0585-Table (Rev. 10-01-04)

Feature F-1: Wall Void

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



Feature (F-2): Solution Cavity

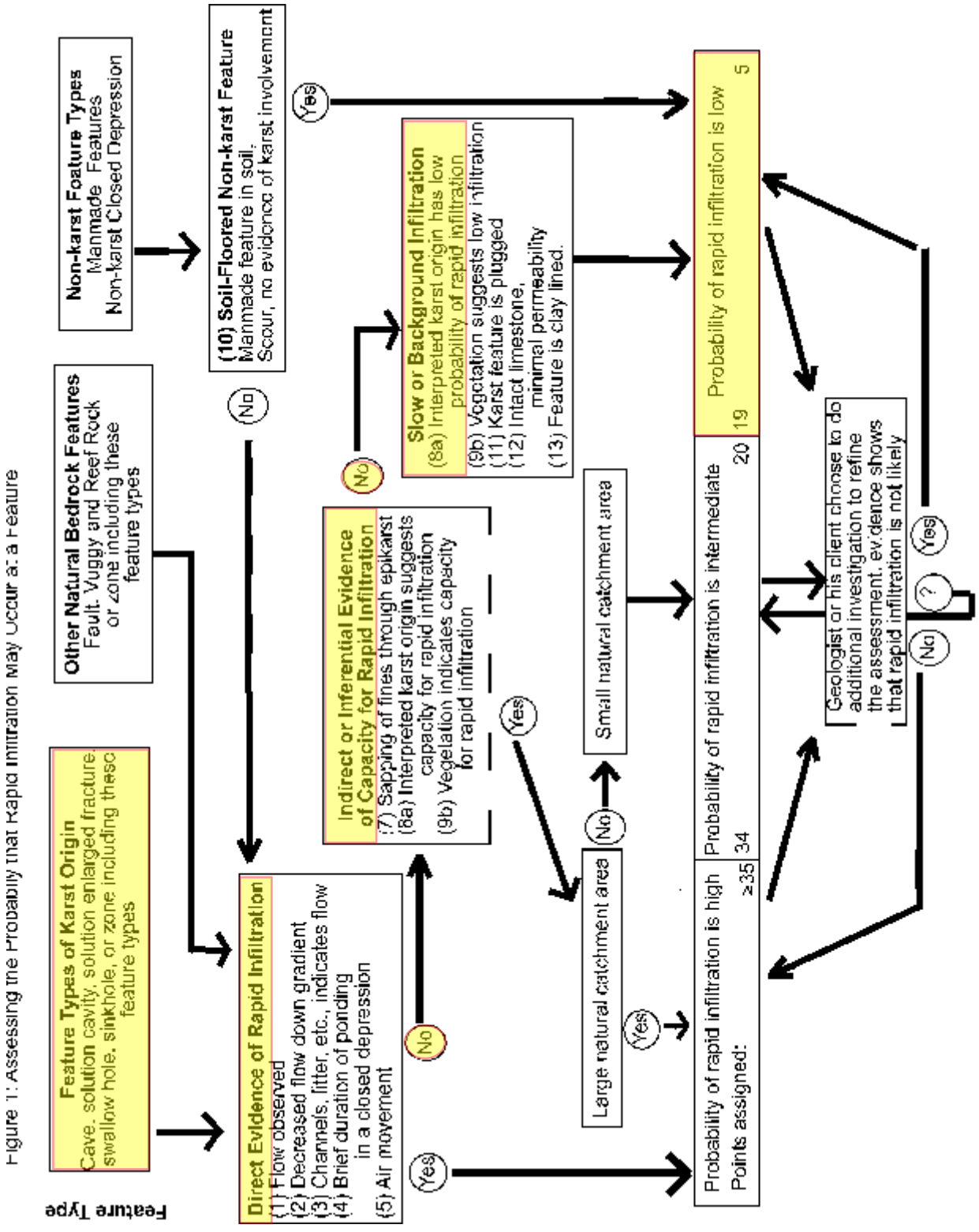
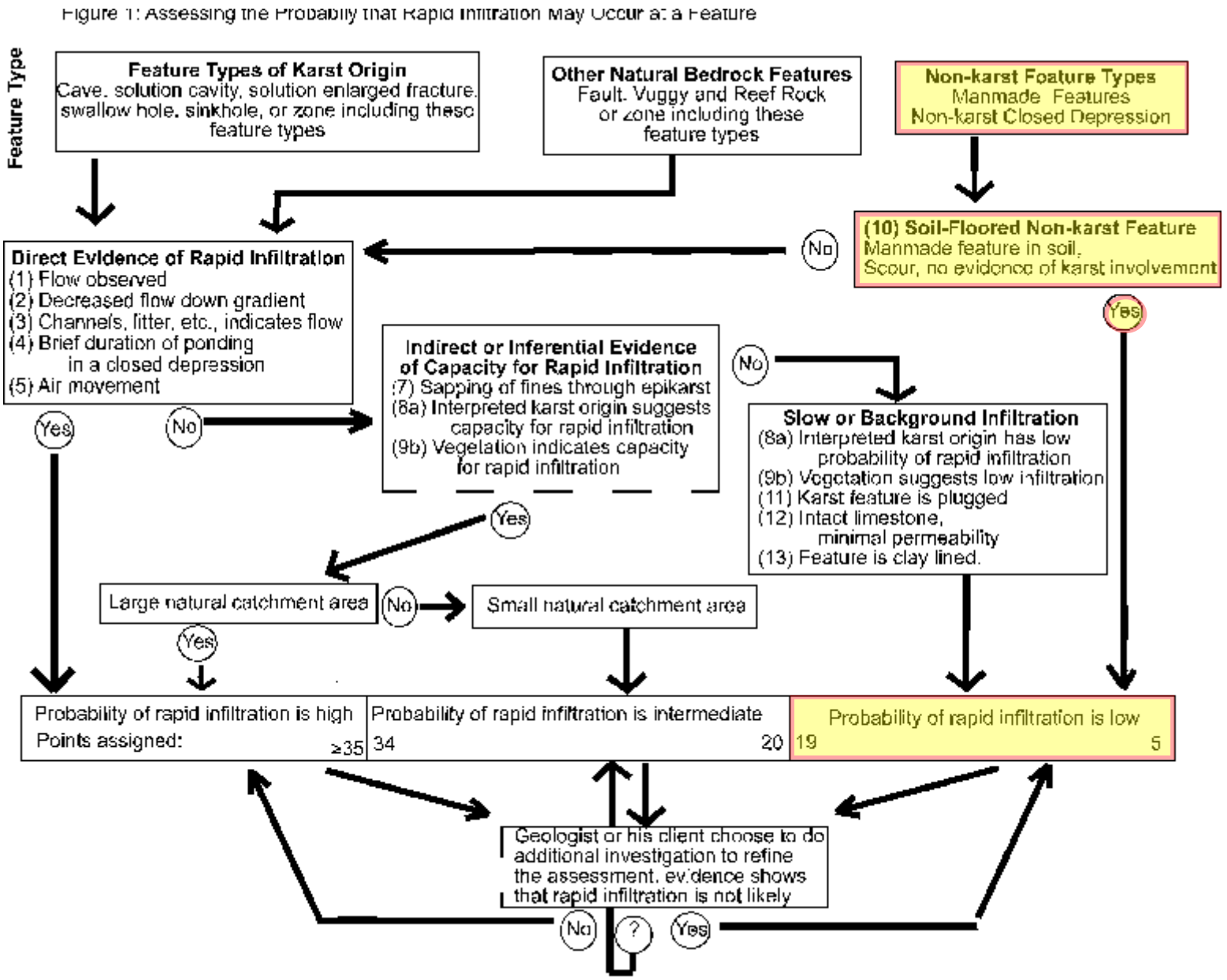


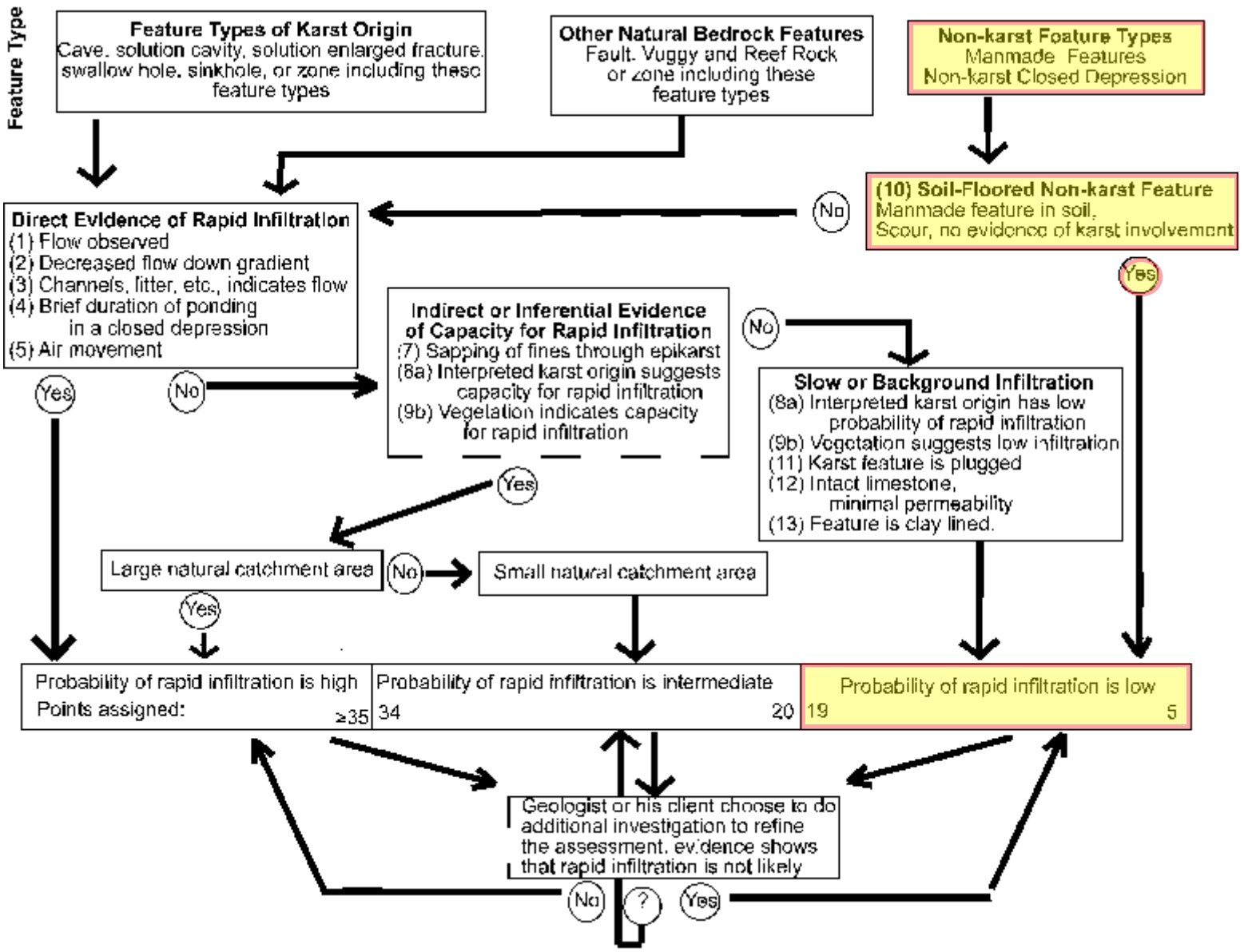
Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

Feature (W-3): Water Well



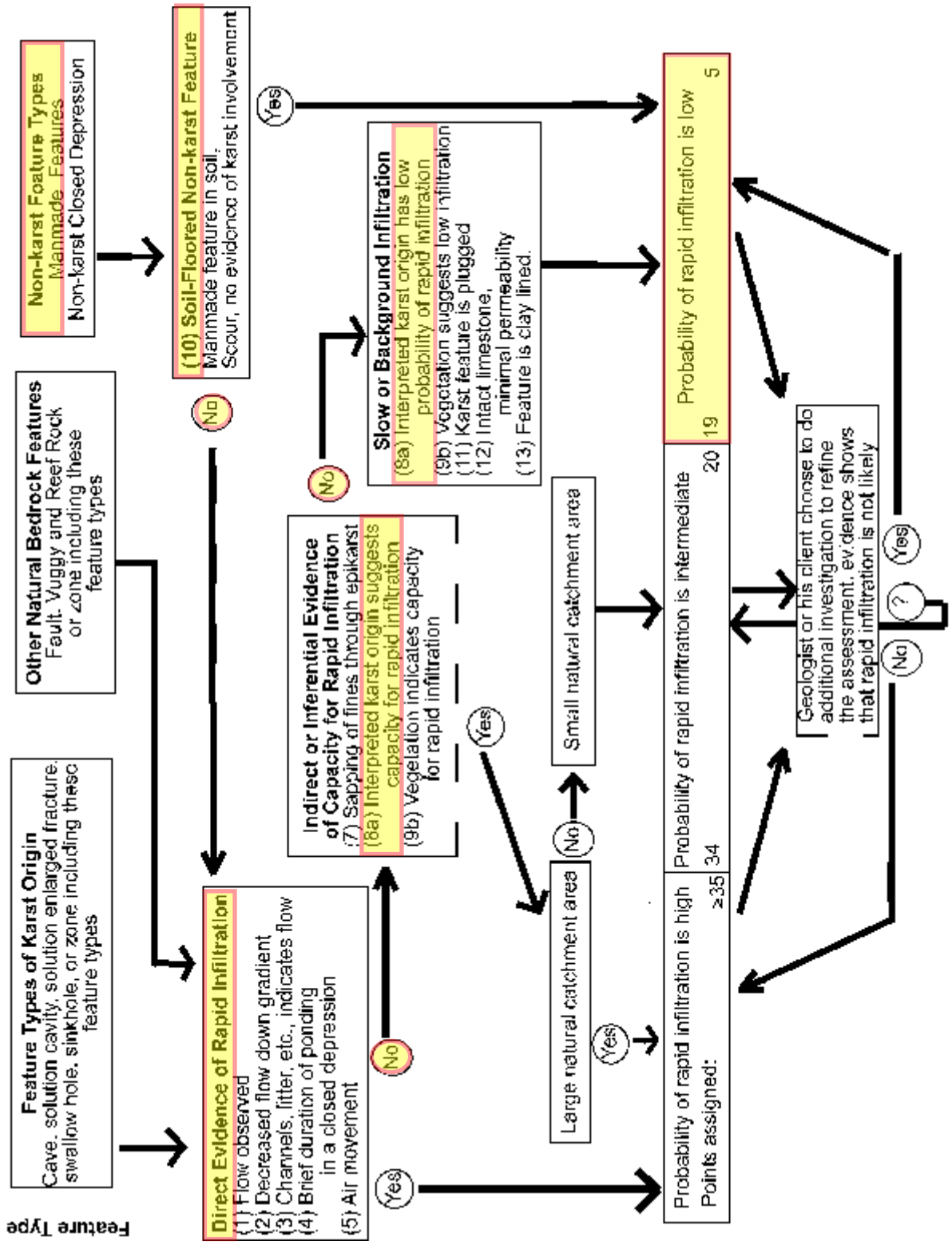
Feature (W-4): Water Well

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



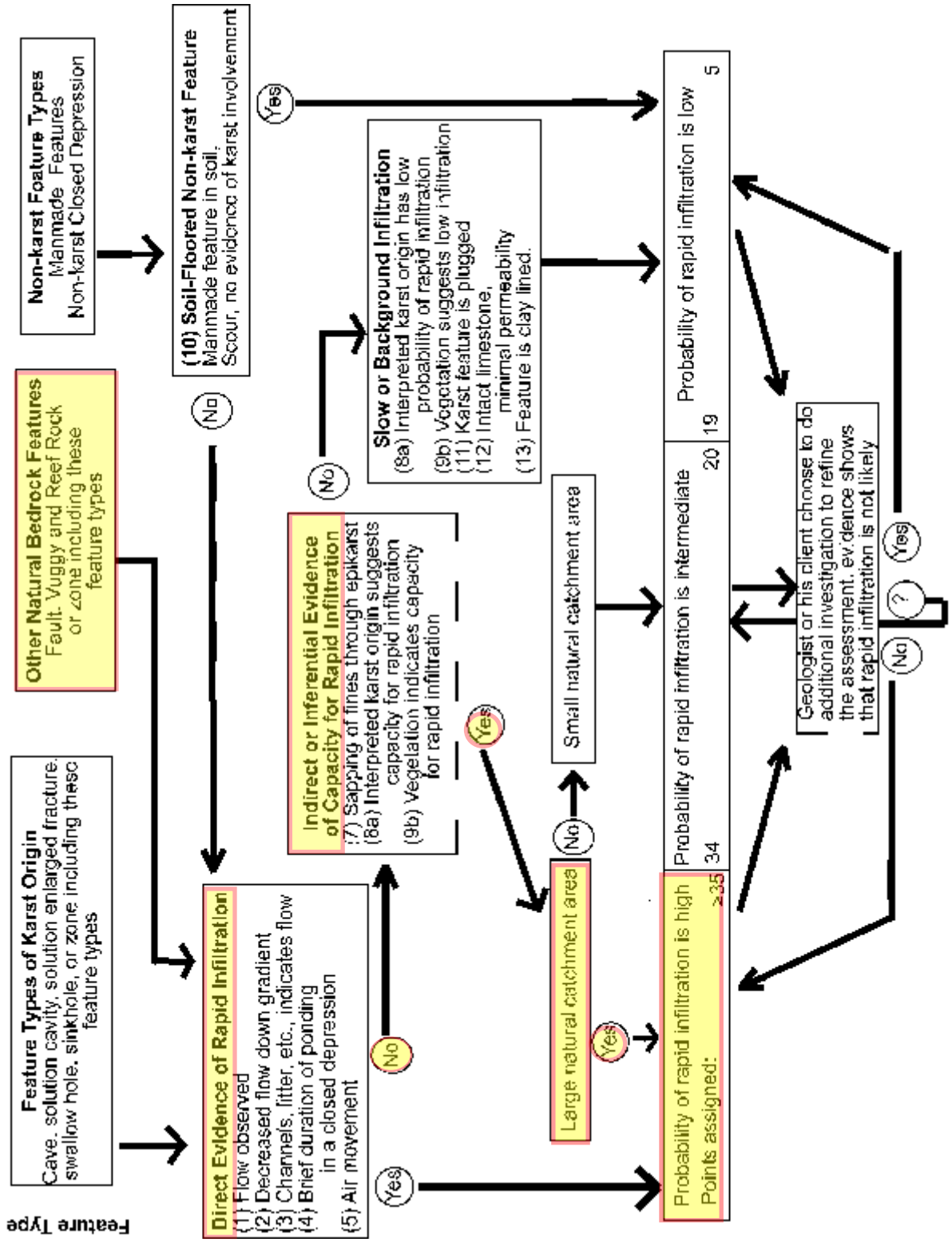
Feature (Q5-7): Quarry Pit

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



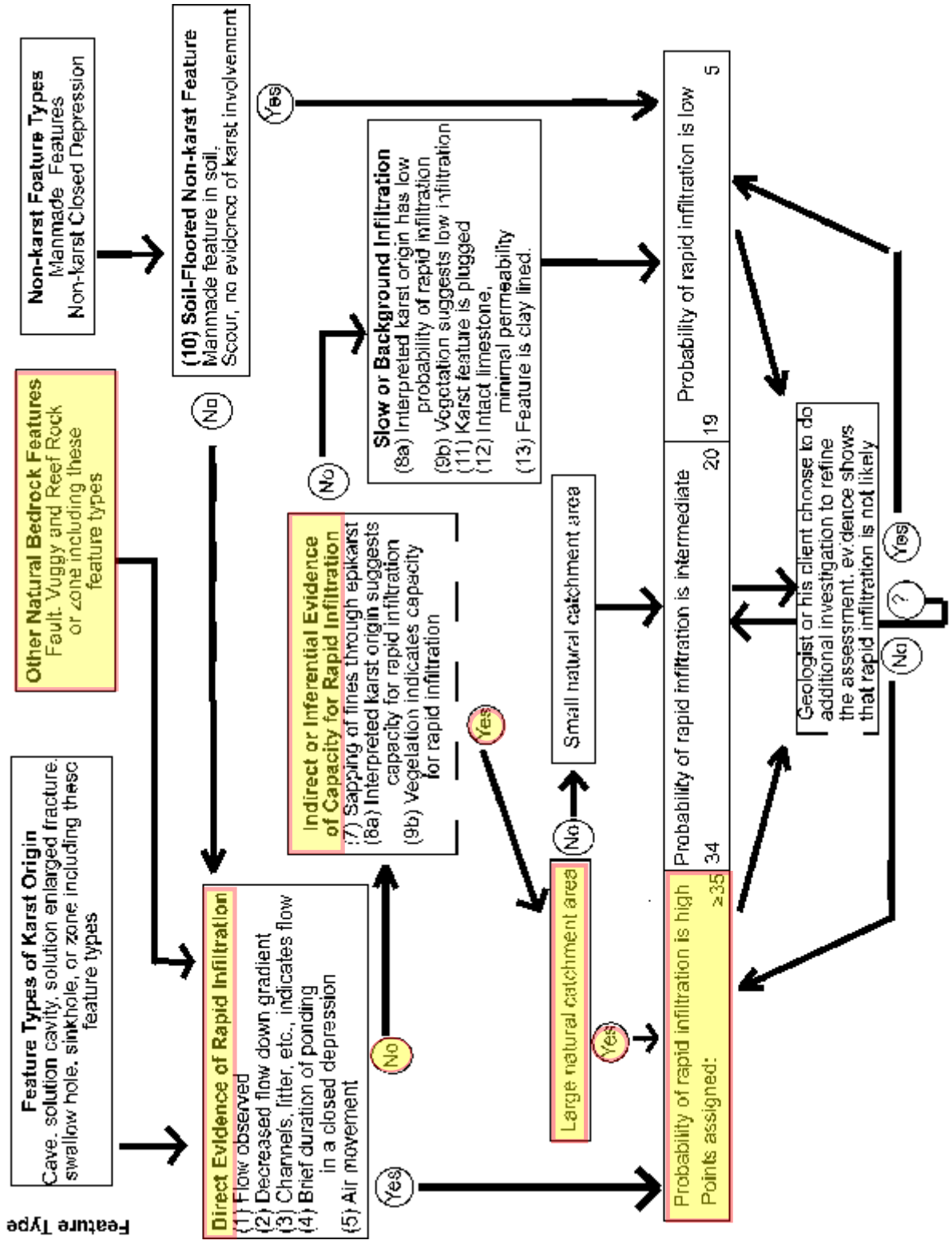
FEATURE (S-8) - Stream

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



FEATURE (S-9) - Stream

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



Feature F-42 thru F-46: Wall Void

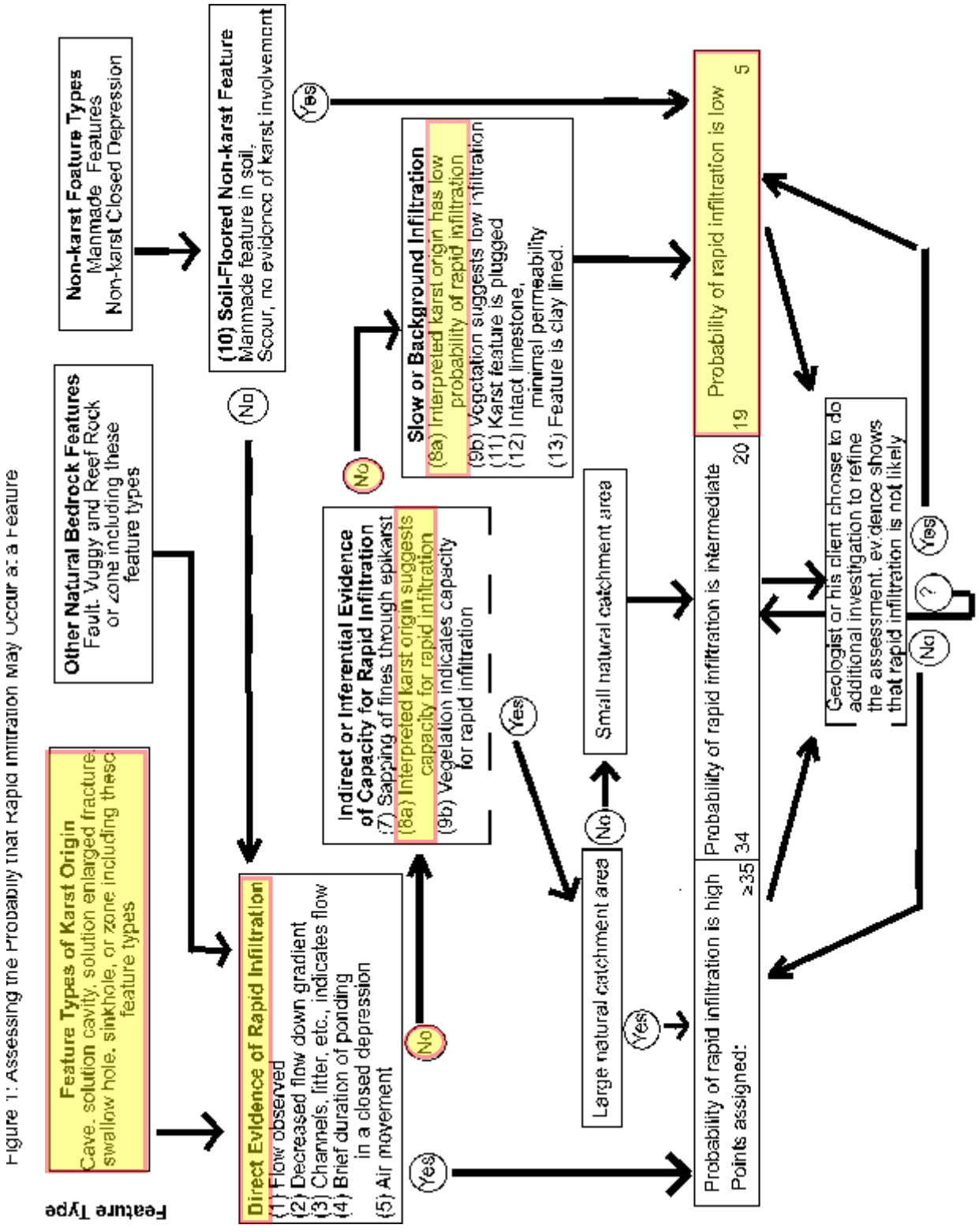
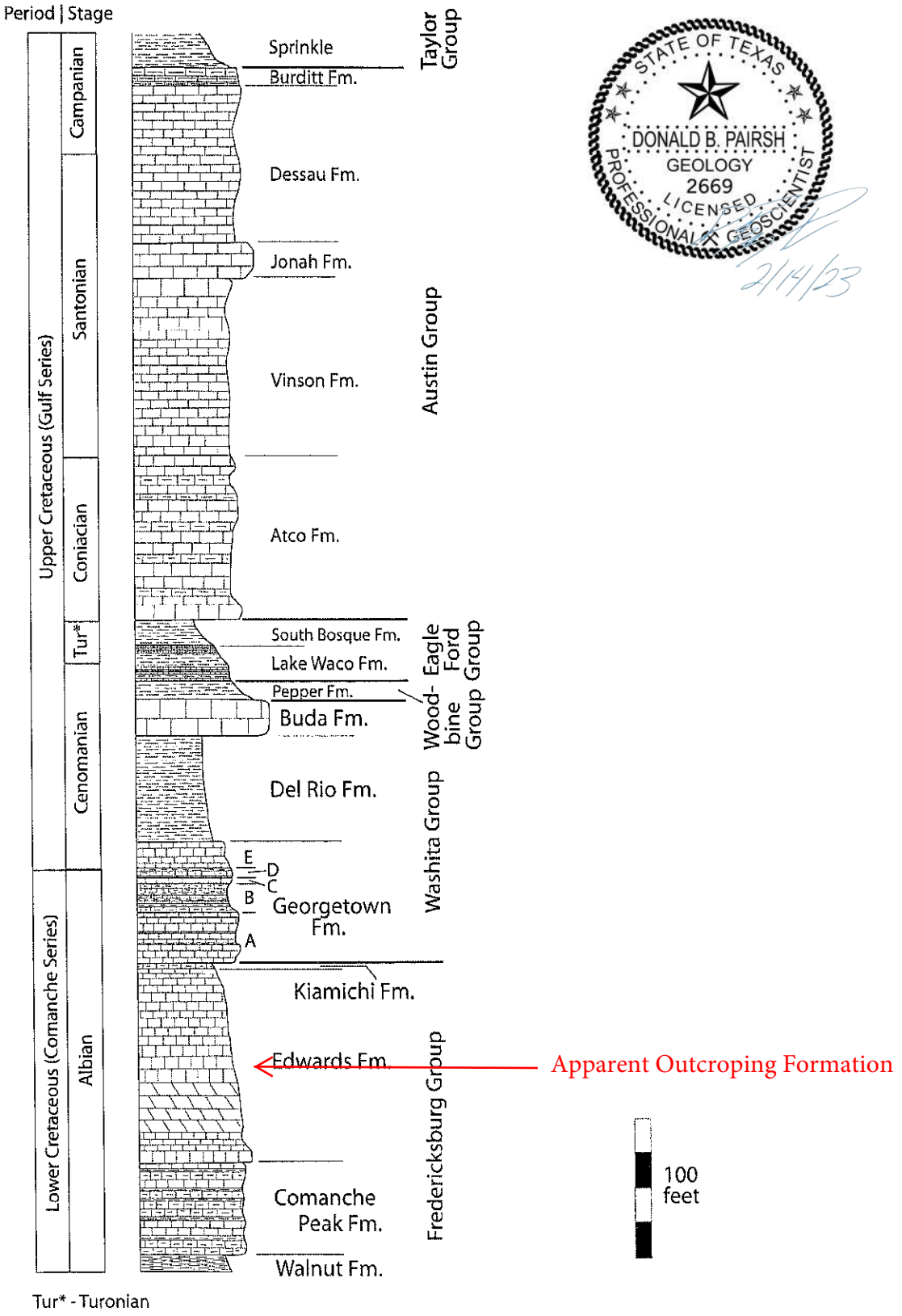


Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

Attachment B – Stratigraphic Column

Generalized Stratigraphic Column of the Round Rock Area



STATE OF TEXAS
DONALD B. PAIRSH
GEOLOGY
2669
LICENSED
PROFESSIONAL GEOSCIENTIST

2/14/23

Source:
Bedrock Geology of Round Rock and Surrounding Areas, Williamson and Travis Counties, Texas
By: Todd B. Housh

Attachment C – Site Geology

NARRATIVE DESCRIPTION OF SITE-SPECIFIC GEOLOGY
ATLAS RANCH
264 ACRE TRACT
JARRELL, WILLIAMSON COUNTY, TEXAS
01/21/2022-01/27/2022 AND 02/10/2023
REVISED 02/14/2023.

LOCATION

The subject site is an approximate 264 acres, more or less, tract of land located at County Road 344 in Jarrell, Williamson County, Texas at approximately 30.8449370° North Latitude and approximately -97.6519572° West Longitude. This location lies within the designated Edwards Aquifer Recharge Zone. Therefore, future intended development of the site must conform to criteria in accordance with the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program Rules in accordance with Title 30 of the Texas Administrative Code, Section 213 (30 TAC§ 213).

EXPLANATION OF ASSESSMENT

This assessment follows general guidelines contained in Texas Commission on Environmental Quality (TCEQ) "*Instruction for Geologist for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones"* (TCEQ Guidance 0585). The site is located on an area of the recharge zone that may contain karst features formed by selective solutioning of limestone minerals by water. Karst features may be expressed as surface features but more commonly tend to persist with depth. This assessment documents the presence or absence of site conditions that were present at the time the site visit that was performed on 01/21/2022-01/27/2022 and 02/10/2023. The site visit consisted of a walk-through survey that consisted of a non-intrusive visual observation or survey of readily accessible, easily visible surface property conditions that were present on the subject property at the time of the site visit. Intrusive subsurface testing such as excavation, cave mapping, infiltrometer test, geophysical studies or tracer studies are not required for the geologic assessment of any feature in accordance with this practice.

A sensitive geologic or manmade feature, for the purpose of this practice is a feature on the recharge zone or transition zone of the Edwards Aquifer with a superficial appearance that suggest a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer and that has the apparent potential for rapid infiltration into the subsurface.

PHYSICAL DESCRIPTION OF SITE

The majority of the subject site is a 264-acre tract that was previously quarried and operated as a stone yard. Clean-up and salvage activities are currently being conducted onsite to address issues associated with previous operations.

SURFACE DRAINAGE

After reviewing the project site topographic survey, storm water runoff appears to flow generally toward the North / Northeast.

SOIL DESCRIPTION

The site soil is composed of:

Georgetown stony clay loam, 1 to 3 percent slopes (GsB), Hydrologic Group D

The Georgetown series consists of moderately deep, well drained, very slowly permeable soils that have formed over indurated limestone of Cretaceous age. These soils occur on nearly level to very gently sloping dissected plateaus. Slope ranges from 0 to 3 percent. Mean annual air temperature is about 19 degrees C (66 degrees F), and mean annual precipitation is about 864 mm (34 in). Well drained. Runoff is very high. Permeability is very slow.

Eckrant-Rock outcrop complex, rolling (ErE), Hydrologic Group D

The Eckrant series consists of soils that are very shallow and shallow to indurated limestone bedrock and interbedded cryptocrystalline quartz, chert, marl, and chalk. These well drained soils formed in residuum derived from limestone. These nearly level to very steep soils are on summits, shoulders, and backslopes of ridges on dissected plateaus. Slope ranges from 1 to 60 percent. Mean annual air temperature is about 20 degrees C (68 degrees F), and the mean annual precipitation is about 668 mm (26 in). Well drained. Permeability is moderately slow. Runoff is very low on 1 to 3 percent slopes, low on 3 to 5 percent slopes, medium on 5 to 20 percent slopes, and high on 20 to 60 percent slopes.

Eckrant extremely stony clay, 0 to 3 percent slopes (EeB), Hydrologic Group D

The Eckrant series consists of soils that are very shallow and shallow to indurated limestone bedrock and interbedded cryptocrystalline quartz, chert, marl, and chalk. These well drained soils formed in residuum derived from limestone. These nearly level to very steep soils are on summits, shoulders, and backslopes of ridges on dissected plateaus. Slope ranges from 1 to 60 percent. Mean annual air temperature is about 20 degrees C (68 degrees F), and the mean annual precipitation is about 668 mm (26 in). Well drained. Permeability is moderately slow. Runoff is very low on 1 to 3 percent slopes, low on 3 to 5 percent slopes, medium on 5 to 20 percent slopes, and high on 20 to 60 percent slopes.

Denton silty clay, 1 to 3 percent slopes (DnB), Hydrologic Group D

The Denton series consist of deep, well drained, slowly permeable soils that formed in clayey materials over residuum weathered from limestone bedrock. These nearly level or gently sloping soils are on uplands and have slopes ranging from 0 to 5 percent. Well drained; medium surface runoff; slow permeability.

Doss silty clay, moist, 1 to 5 percent slopes (DoC), Hydrologic Group D

The Doss series consists of shallow to weakly cemented limestone, well drained, moderately slow permeable soils that formed in calcareous loamy and clayey residuum derived from marls and limestone. These very gently to moderately sloping soils occur on hill slopes on dissected plateaus. Slope ranges from 1 to 8 percent. Mean annual precipitation is about 762 mm (30 in), and mean annual air temperature is about 18.9 degrees C (66 degrees F). Well drained. Permeability is moderately slow. Runoff is medium on 1 to 5 percent slopes and high on 5 to 8

percent slopes.

Georgetown clay loam, 0 to 2 percent slopes (GeB), Hydrologic Group D

The Georgetown series consists of moderately deep, well drained, very slowly permeable soils that have formed over indurated limestone of Cretaceous age. These soils occur on nearly level to very gently sloping dissected plateaus. Slope ranges from 0 to 3 percent. Mean annual air temperature is about 19 degrees C (66 degrees F), and mean annual precipitation is about 864 mm (34 in). Well drained. Runoff is very high. Permeability is very slow.

Oakalla soils, frequently flooded (Of), Hydrologic Group B

The Oakalla series consists of soils that are very deep. These well drained soils formed in loamy alluvium derived from limestone of Cretaceous age. These soils are on nearly level to gently sloping on flood plains on perennial streams in river valleys. They are subject to flooding by overflow from streams for short periods after heavy rains. Slopes are 0 to 2 percent. Mean annual temperature is about 19 degrees C (67 degrees F), and mean annual precipitation is about 737 mm (29 in). Well drained. Permeability is moderate. Runoff is negligible on 0 to 1 percent slopes and very low on 1 to 2 percent slopes. The soil floods at 1-to-10-year intervals, except where protected by dams.

GEOLOGY

The site is located on the:

Edwards Limestone (Ked)

The Edwards Limestone consist of limestone, dolomite, and chert; limestone aphanitic to fine grained, massive to thin bedded, hard, brittle, in part rudistid biostromes, much miliolid biosparite; dolomite fine to very fine grained, porous, medium gray to grayish brown; chert, nodules and plates common, varies in amount from bed to bed, some intervals free of chert, mostly white to light gray; in zone of weathering considerably recrystallized, "honeycombed," and cavernous forming an aquifer; forms flat areas and plateaus bordered by scarps; thickness 60-350 feet, thins northward.

Georgetown Formation (Kgt)

The Georgetown Formation consist of limestone and marl; mostly limestone, fine grained, argillaceous, nodular, moderately indurated, light gray; some limestone, hard, brittle, thick bedded, white; some shale, marly, soft, light gray to yellowish gray; marine megafossils include Kingena wacoensis and Gryphaea washitaensis; thickness 30-80 feet, thins southward.

STRUCTURAL TREND and FEATURES:

The subject site is located on the Edwards Plateau within the Balcones / Ouachita structural province in central Texas. The Balcones / Ouachita structural province is an arcuate band of mostly down-to–the-coast normal faults that sub-parallels the Gulf of Mexico. In Williamson County, the regional structural trend of the Balcones / Ouachita province is generally southwest to northeast.

(Source: "*Lineament Analysis and Inference of Geologic Structure-Examples from the Balcones/Ouachita Trend of Texas."* Curan, Woodfruff, Jr, and Thompson, 1982)

The site is located in the vicinity of mapped regional faulting. No surface expressions of local structural features were observed during this assessment.

SITE SPECIFIC GEOLOGIC FEATURE DESCRIPTIONS
Identified 01/21/2022 - 01/27/2022 and 02/10/2023.
Revised 02/14/2023.

To the extent that surface property features were readily accessible and observable at the time the site was evaluated on 01/21/2022-01/27/2022 and 02/10/2023 no geologic features were identified on the subject tract of land that has observed potential to affect recharge to the Edwards Aquifer except for the following:

F-1 WV: **Wall Void – Quarry:** This feature is a void in the wall of the quarry that has no surface expression and no drainage area. Per TCEQ Guidance Document RG-500 (*Best Management Practices for Quarry Operations – Complying with the Edwards Aquifer Rule*s), Section 2.2.4: Wall voids with no surface expression and no drainage area are not considered sensitive. Thus, discovering a wall void during quarrying should not increase the risk of contamination and does not require notifying the TCEQ or stopping work. Therefore, this feature is not identified as a sensitive feature.

F-2 SC: **Solution Cavity:** This feature appears to be a localized area of enhanced solutioning associated with weathering of limestone in the weathered zone near the soil/bedrock interface. This solution cavity, as observed at the time of this assessment, is located in a zone of apparent Epikarst. Epikarst is used herein to identify the zone of weathering at the upper surface of a limestone that includes the solutionally modified (karren) bedrock surface and the overlying regolith. The extent of weathering and dissolution within the Epikarst will diminish with depth and when probed with a rod, this feature terminated in apparently consolidated rock.

Surface conditions observed in connection with this feature are not believed to persist in the subsurface at depth and do not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as sensitive feature at this time.

W-3 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

W-4 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

Q-(5-7) MB: **Manmade Feature – Excavation (Quarry)**: This feature is an inactive open quarry pit with vertical rock walls. At the time of the assessment, materials stockpiles and old machinery were located within the quarry. There was no standing water in the bottom of the quarry and no indication the quarry was in communication with groundwater. Per TCEQ Guidance Document RG-500 (*Best Management Practices for Quarry Operations – Complying with the Edwards Aquifer Rule*s), quarry pits are not considered sensitive. Therefore, this feature is not identified as sensitive.

S-8 O: **Other Natural Bedrock Feature - Streambed**: This feature is a natural drainage way designated as an Intermittent Stream (Salado Creek) by the USGS National Hydrography Dataset (NHD). In accordance with TCEQ Edwards Aquifer Protection Program Guidance, Streambeds, including dry drainages, are significant because runoff is focused to them. Not only are features in streambeds and natural drainage ways likely to receive large volumes of recharge, but they are likely to be part of hydrologically integrated flow paths because past flow has preferentially enlarged and maintained conduits. This feature was not identified as sensitive in the initial Geologic Assessment dated 11/11/202 due to no indication of sensitive / recharge features (swallets or swallow holes) observed within the streambed at the time the site was evaluated. However, it has since come to Capitol's attention that an investigation of the previous operator was conducted in mid-2015 and the subsequent Investigation Report #1258599 identifies Salado Creek as a "losing" stream and therefore designated sensitive. The Report also states, "*a 200-foot buffer was established from the centerline of Salado Creek*". Therefore, this feature is identified as sensitive, and the established 200-foot buffer from center line will be required.

S-9 O: **Other Natural Bedrock Feature - Streambed**: This feature is a natural drainage way designated as an Intermittent Stream (Salado Creek Tributary) by the USGS National Hydrography Dataset (NHD). In accordance with TCEQ Edwards Aquifer Protection Program Guidance, Streambeds, including dry drainages, are significant because runoff is focused to them. Not only are features in streambeds and natural drainage ways likely to receive large volumes of recharge, but they are likely to be part of hydrologically integrated flow paths because past flow has preferentially enlarged and maintained conduits. This feature was not identified as sensitive in the initial Geologic Assessment dated 11/11/202 due to no indication of sensitive / recharge features (swallets or swallow holes) observed within the streambed at the time the site was evaluated. However, it has since come to Capitol's attention that an investigation of the previous operator was conducted in mid-2015 and the subsequent Investigation Report #1258599 identifies Salado Creek Tributary as a "losing" stream and therefore designated sensitive. The Report also states, "*a 50-foot buffer was established from the centerline of Salado Creek tributary*". Therefore, this feature is identified as sensitive, and the established 50-foot buffer from centerline will be required.

F-1 WV: **Wall Void – Quarry:** This feature is a void in the wall of the quarry that has no surface expression and no drainage area. Per TCEQ Guidance Document RG-500 (*Best Management Practices for Quarry Operations – Complying with the Edwards Aquifer Rule*s), Section 2.2.4: Wall voids with no surface expression and no drainage area are not considered sensitive. Thus, discovering a wall void during

quarrying should not increase the risk of contamination and does not require notifying the TCEQ or stopping work. Therefore, this feature is not identified as a sensitive feature.

F-42 WV: **Wall Void – Quarry:** This feature is a void in the wall of the quarry that has no surface expression and no drainage area. Per TCEQ Guidance Document RG-500 (*Best Management Practices for Quarry Operations – Complying with the Edwards Aquifer Rule*s), Section 2.2.4: Wall voids with no surface expression and no drainage area are not considered sensitive. Thus, discovering a wall void during quarrying should not increase the risk of contamination and does not require notifying the TCEQ or stopping work. Therefore, this feature is not identified as a sensitive feature.

F-43 WV: **Wall Void – Quarry:** This feature is a void in the wall of the quarry that has no surface expression and no drainage area. Per TCEQ Guidance Document RG-500 (*Best Management Practices for Quarry Operations – Complying with the Edwards Aquifer Rule*s), Section 2.2.4: Wall voids with no surface expression and no drainage area are not considered sensitive. Thus, discovering a wall void during quarrying should not increase the risk of contamination and does not require notifying the TCEQ or stopping work. Therefore, this feature is not identified as a sensitive feature.

F-44 WV: **Wall Void – Quarry:** This feature is a void in the wall of the quarry that has no surface expression and no drainage area. Per TCEQ Guidance Document RG-500 (*Best Management Practices for Quarry Operations – Complying with the Edwards Aquifer Rule*s), Section 2.2.4: Wall voids with no surface expression and no drainage area are not considered sensitive. Thus, discovering a wall void during quarrying should not increase the risk of contamination and does not require notifying the TCEQ or stopping work. Therefore, this feature is not identified as a sensitive feature.

F-45 WV: **Wall Void – Quarry:** This feature is a void in the wall of the quarry that has no surface expression and no drainage area. Per TCEQ Guidance Document RG-500 (*Best Management Practices for Quarry Operations – Complying with the Edwards Aquifer Rule*s), Section 2.2.4: Wall voids with no surface expression and no drainage area are not considered sensitive. Thus, discovering a wall void during quarrying should not increase the risk of contamination and does not require notifying the TCEQ or stopping work. Therefore, this feature is not identified as a sensitive feature.

F-46 WV: **Wall Void – Quarry:** This feature is a void in the wall of the quarry that has no surface expression and no drainage area. Per TCEQ Guidance Document RG-500 (*Best Management Practices for Quarry Operations – Complying with the Edwards Aquifer Rule*s), Section 2.2.4: Wall voids with no surface expression and no drainage area are not considered sensitive. Thus, discovering a wall void during quarrying should not increase the risk of contamination and does not require notifying the TCEQ or stopping work. Therefore, this feature is not identified as a sensitive feature.

OBSERVATIONS

To the extent that surface property features were readily accessible and observable at the time the site was evaluated on 01/21/2022-01/27/2022 and 02/10/2023 no sensitive features were identified on the subject tract of land that has observed potential to affect recharge to the Edwards Aquifer except for the following:

S-8 O: **Other Natural Bedrock Feature - Streambed**: This feature is a natural drainage way designated as an Intermittent Stream (Salado Creek) by the USGS National Hydrography Dataset (NHD). In accordance with TCEQ Edwards Aquifer Protection Program Guidance, Streambeds, including dry drainages, are significant because runoff is focused to them. Not only are features in streambeds and natural drainage ways likely to receive large volumes of recharge, but they are likely to be part of hydrologically integrated flow paths because past flow has preferentially enlarged and maintained conduits. This feature was not identified as sensitive in the initial Geologic Assessment dated 11/11/202 due to no indication of sensitive / recharge features (swallets or swallow holes) observed within the streambed at the time the site was evaluated. However, it has since come to Capitol's attention that an investigation of the previous operator was conducted in mid-2015 and the subsequent Investigation Report #1258599 identifies Salado Creek as a "losing" stream and therefore designated sensitive. The Report also states, "*a 200-foot buffer was established from the centerline of Salado Creek*". Therefore, this feature is identified as sensitive, and the established 200-foot buffer from center line will be required.

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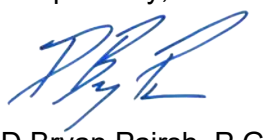
CONCLUDING STATEMENTS

The Client understands that no non-intrusive visual observation or survey can wholly eliminate uncertainty regarding the possible presence of geologic conditions in connection with the subject property. Due to the inherent limits in connection with the agreed Scope of Work, this report does not address uncertainty about site conditions across those portions of the subject property not specifically addressed in this report.

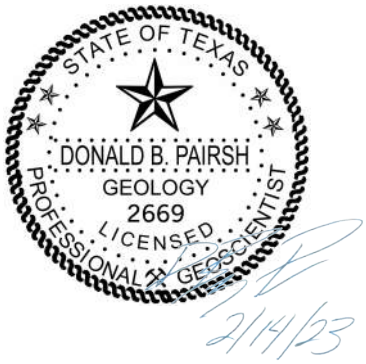
Development of the site is planned. Additional modification of site surface conditions can be expected as construction proceeds. Unsuspected solution enlarged fractures, caves and cavities may be discovered during construction operations.

This assessment does not address the possible presence of subsurface conditions that may be exposed during construction operations. Should solution features or conditions be exposed during construction operations that indicate a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer, operations in the vicinity of the feature should be halted and the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program should be contacted immediately in accordance with 30 TAC §213.5(f)(2).

Respectfully,



D Bryan Pairsh, P.G.
Project Geologist
Capitol Environmental, Inc
TBPG Firm Registration #50389
Austin, Texas



DISCLAIMER:

Under standard geologic assessment practice, this assessment is an assessment of surface property conditions that were readily accessible and easily visible at the time of the assessment.

Services performed under this contract were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. Under standard geologic assessment practice, information developed in this report represents an assessment of environmental conditions observed as present or absent on portions of the surface of the subject property at the time of the assessment. The field observations, measurements and research reported in this report are considered sufficient in detail and scope to form a contained assessment of discrete portions of the subject property. Capitol warrants that the findings and conclusions contained in this report have been prepared in accordance with generally accepted methods normal for the subject site described in this report.

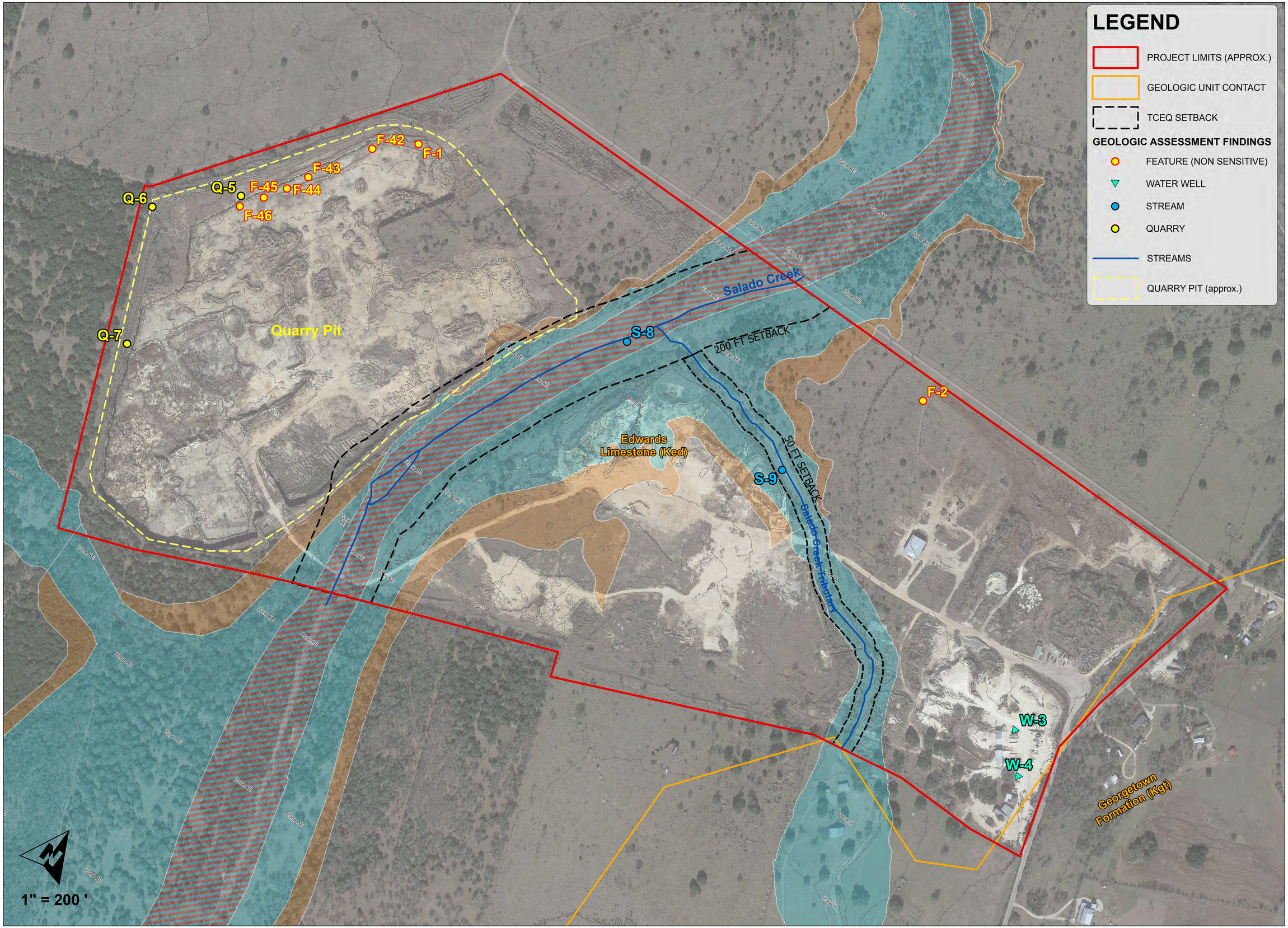
Not every property will warrant the same level of assessment. Consistent with good commercial and customary practice, the appropriate level of assessment will be guided by the type of property subject to assessment, the expertise and risk tolerance of the Client and information developed in the course of the inquiry. The Assessment has been developed to provide the Client with information regarding apparent indications of the presence of absence of geologic conditions relating to the surface of the subject site. The Geologic Assessment report is necessarily limited to the conditions observed and to the information available at the time the work was performed. Due to the limited nature of the work, there is a possibility that conditions may exist in connection with the subject site which could not be identified within the scope of this assessment practice, or which were not easily visible or not disclosed at the time the report was prepared.

It is also possible that assessment methods employed at the time the report was prepared may be later superseded by more discrete assessment methods. The definition of a “sensitive geologic feature” and / or a “critical environmental feature” can also change statutorily over time. Capitol does not warrant the content or findings of this report in the event of changes in conditions in connection with the subject property; in the event of changes in assessment methods; or in the event of changes in statute that may apply to the subject property in the future.

In preparing this report, Capitol has relied on information derived from third party sources and personal interviews, as well as other investigative work. Except as set forth in this report, Capitol has made no independent investigation as to the accuracy or completeness of the information derived from third party sources.

This report does not address uncertainty about site conditions across those portions of the subject property not specifically assessed in this report. The Client understands that no surface assessment can wholly eliminate uncertainty regarding the possible presence of geologic conditions at depth in connection with the subject property. The Client should recognize that conditions elsewhere in the assessment area may differ from those at the study /sample locations, and that surface conditions described in the assessment practice herein may change at depth. This assessment should not be used as a basis for engineering design.

This report was prepared for the Client, to identify the presence or absence of geologic conditions on surface portions of the subject property. Any use of this report for other purposes or any use of information presented in this report by other parties other than the Client is the Client’s responsibility.



ATLAS RANCH

GEOLOGIC SITE MAP

Prepared under the supervision of: D. Bryan Pairsh, P. G.

Date: 2/10/2023

TBPG Firm Registration #50389

CAPITOL ENVIRONMENTAL

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512.535.4368

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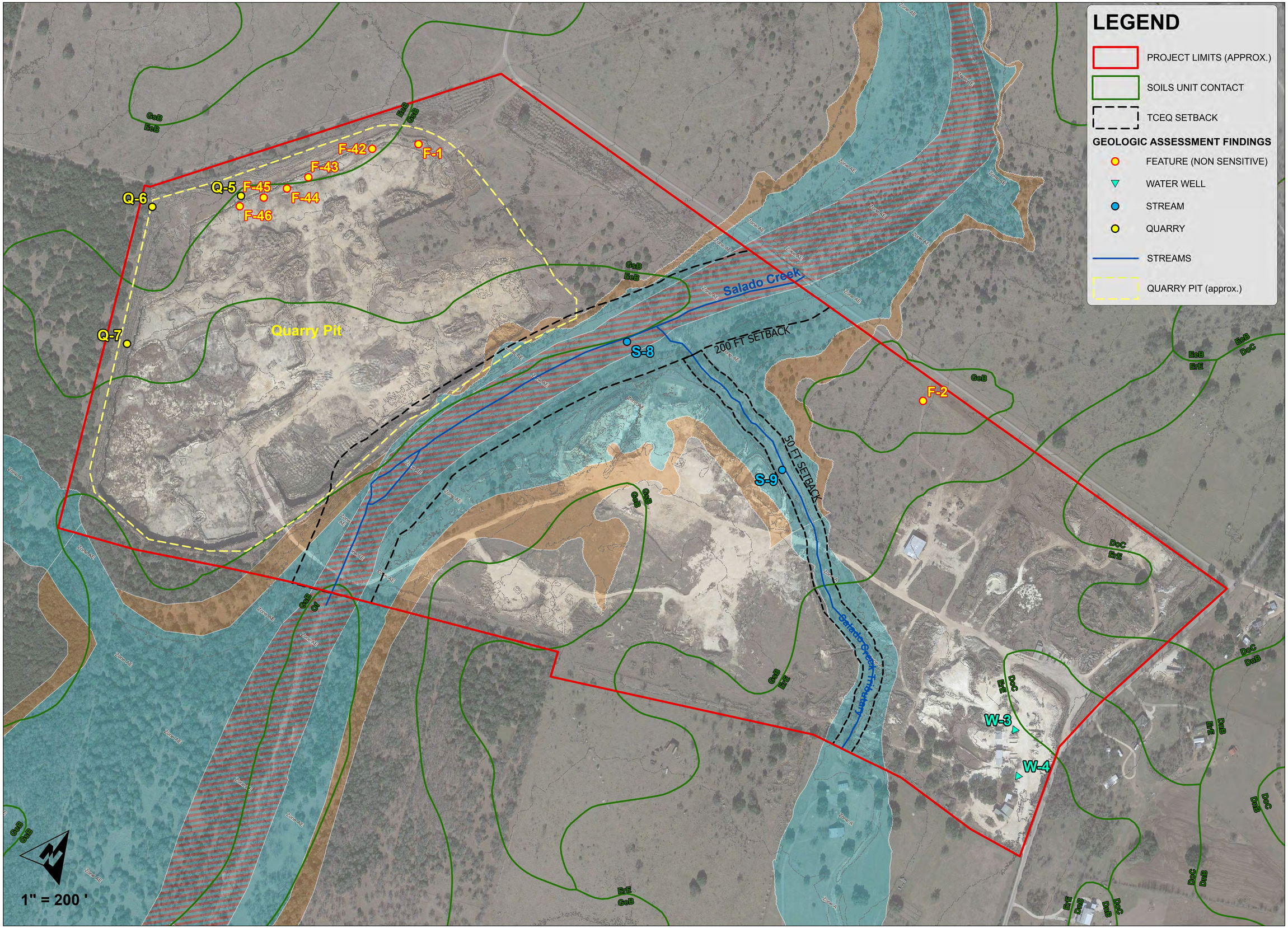
Sheet No. 1 of 2



ATLAS RANCH

SOILS SITE MAP

Prepared under the supervision of: D. Bryan Pairsh, P. G.

Date: 2/10/2023

TBPG Firm Registration #50389

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Sheet No. 2 of 2

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), 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

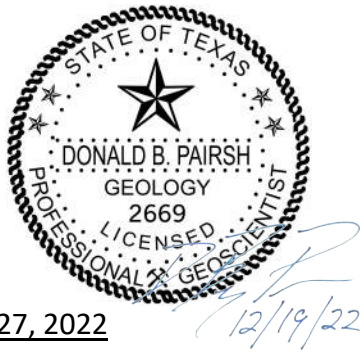
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: D Bryan Pairsh Telephone: 512-535-4368

Date: 12/19/2022 Fax: 512-535-4451

Representing: Capitol Environmental, Inc TBPG Firm Registration #50389 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Atlas Ranch (674.62 Acres)

Project Information

1. Date(s) Geologic Assessment was performed: January 21 thru January 27, 2022
2. Type of Project:
   - ☒ WPAP
   - ☒ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Eckrant stony clay (EeB), 0-3 % slope	D	1-10'
Eckrant-Rock outcrop (ErE), rolling	D	1-10'
Georgetown stony clay loam (GsB), 1-3 % slopes	D	1-10'
Georgetown clay loam (GeB), 0-2% slopes	D	1-10'
Denton silty clay (DnB), 1-3% slopes	D	1-10'
Doss silty clay (DoC), 1-5% slopes	D	1-10’

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1”: 400'

   Applicant's Site Plan Scale: 1" = 375'
   Site Geologic Map Scale: 1" = 375'
   Site Soils Map Scale (if more than 1 soil type): 1" = 375'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.

☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.
12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☐ Geologic or manmade features were not discovered on the project site during the field investigation.

13. ☐ The Recharge Zone boundary is shown and labeled, if appropriate.
14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☒ There are 12 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ 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 Chapter 76.

    ☐ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☒ 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.

Attachment A – Geologic Table

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: ATLAS RANCH (674 Acres)

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
W-10	30.853985	-97.664151	MB	30	Kc					Waterwell			X	0	30	X		X		HILLTOP
W-11	30.847900	-97.667231	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
W-12	30.844146	-97.664851	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
ST-13	30.844227	-97.664557	MB	30	Ked	175	167	5		Stock Tank			F	5	35	X			X	DRAINAGE
W-14	30.842546	-97.665402	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
W-15	30.849676	-97.646385	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
W-16	30.850339	-97.645972	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
ST-17	30.847795	-97.645377	MB	30	Ked	970	195	6		Stock Tank			F	5	35	X			X	DRAINAGE
F-18	30.839875	-97.648565	O	5	Ked	2.8	2	0.9					C	10	15	X		X		HILLTOP
ST-19	30.853928	-97.662513	MB	30	Kc	170	118	7		Stock Tank			F	5	35	X			X	DRAINAGE
F-20	30.849083	-97.656916	MB	30	Ked	25	6	2					N	5	35	X		X		HILLTOP
F-21	30.849427	-97.658206	MB	30	Ked	30	30	4					C	5	35	X		X		HILLSIDE
S-22	30.850302	-97.652149	O	5	Ked				115	Stream			C	15	20	X			X	STREAMBED
F-23	30.845548	-97.662565	CD	5	Ked	8	7	1.5					O	10	15	X		X		HILLTOP
F-24	30.844406	-97.656388	SC	20	Ked	3	3	1.5					C	15	35	X		X		HILLSIDE
F-25	30.844958	-97.655830	CD	5	Ked	1	1	1					O	15	20	X		X		HILLSIDE

***DATUM:** NAD 83 StatePlane Texas Central

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date: 12/19/2022

Sheet: 1 of 2

STATE OF TEXAS
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2669
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PROFESSIONAL GEOSCIENTIST
12/19/22

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: ATLAS RANCH (647 Acres)

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
F-26	30.844171	-97.659194	SF	20	Ked	9	5	2					C	15	35	X		X		HILLSIDE
C-27	30.853937	-97.664035	C	30	Kc	35	29	10	115				N	35	65		X		X	HILLTOP
W-28	30.844053	-97.664752	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
F-29	30.850575	-97.665282	CD	20	Ked	1	1	1					O	10	30	X		X		HILLTOP
W-30	30.847893	-97.667256	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
F-31	30.842798	-97.665411	CD	20	Ked	1	2	1					O	5	25	X		X		HILLTOP
F-32	30.841688	-97.651274	O	5	Ked	0.5	0.5	0.5					O	10	15	X		X		HILLTOP
W-33	30.846655	-97.649470	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
W-34	30.846559	-97.649351	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
ST-35	30.847570	-97.652960	MB	30	Ked	120	460	6		Stock Tank			F	5	35	X				DRAINAGE
W-36	30.848832	-97.655330	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
W-37	30.849016	-97.655418	MB	30	Ked					Waterwell			X	0	30	X		X		HILLTOP
D-38	30.852316	-97.668514	O	5	Ked/Kc				15	Drainage way			C	20	25	X				DRAINAGE
D-39	30.853759	-97.660912	O	5	Ked/Kc				50	Drainage way			C	20	25	X				DRAINAGE
D-40	30.846506	-97.655849	O	5	Ked				115	Drainage way			C	20	25	X				DRAINAGE
D-41	30.844672	-97.655841	O	5	Ked				38	Drainage way			C	20	25	X				DRAINAGE

DATUM NAD 83 StatePlane Texas Central

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
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Date: 12/19/2022

Sheet: 2 of 2

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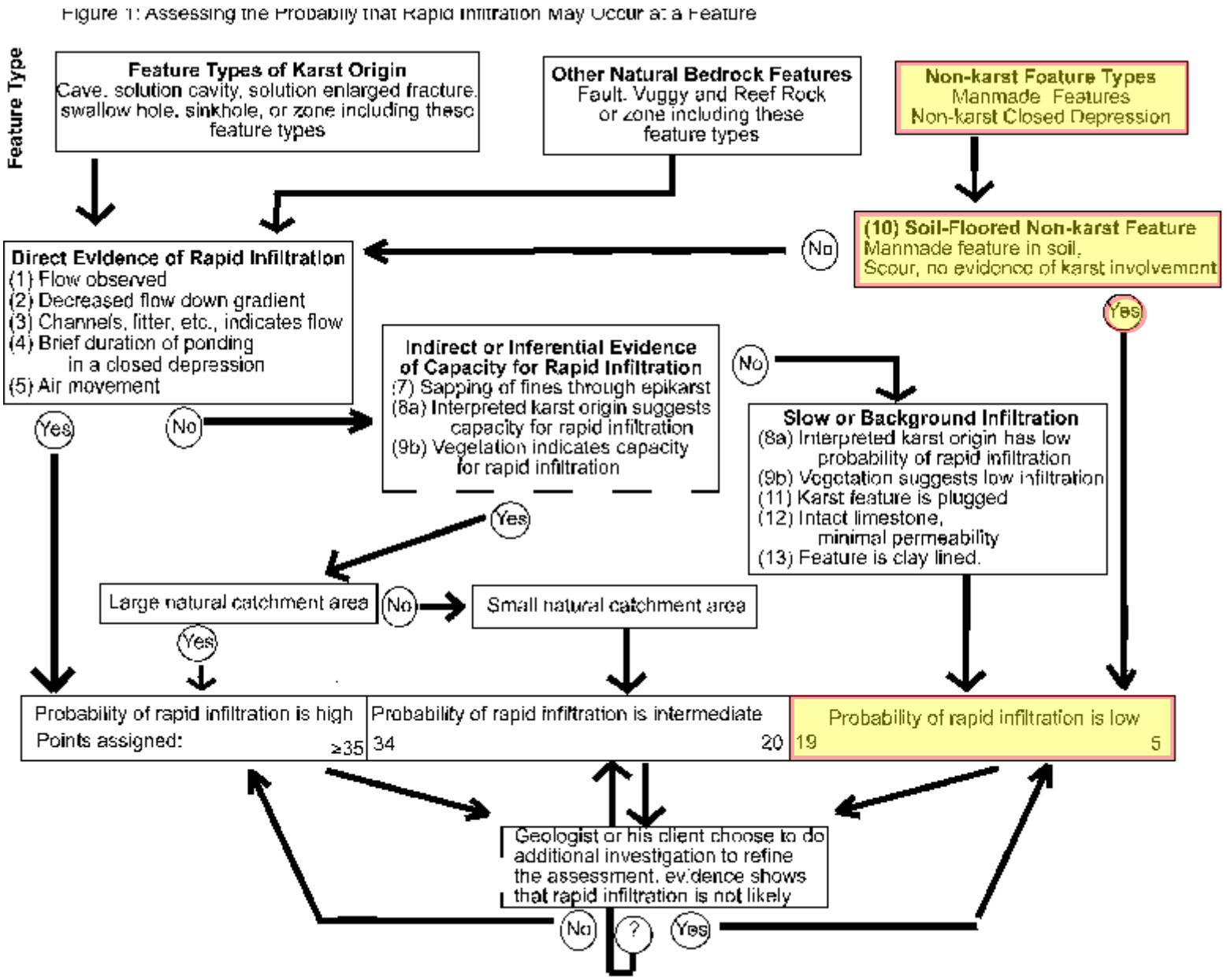
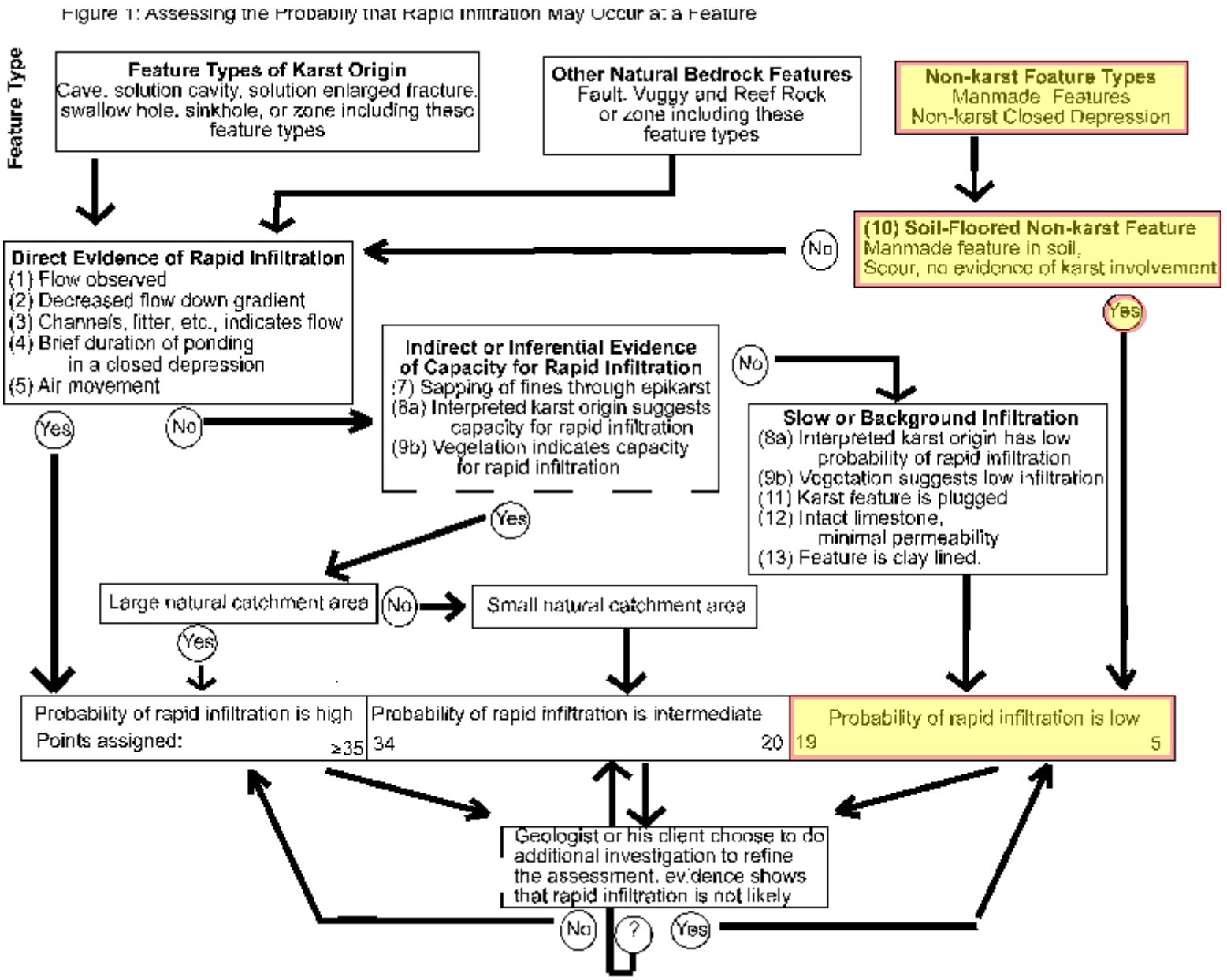
12/19/22

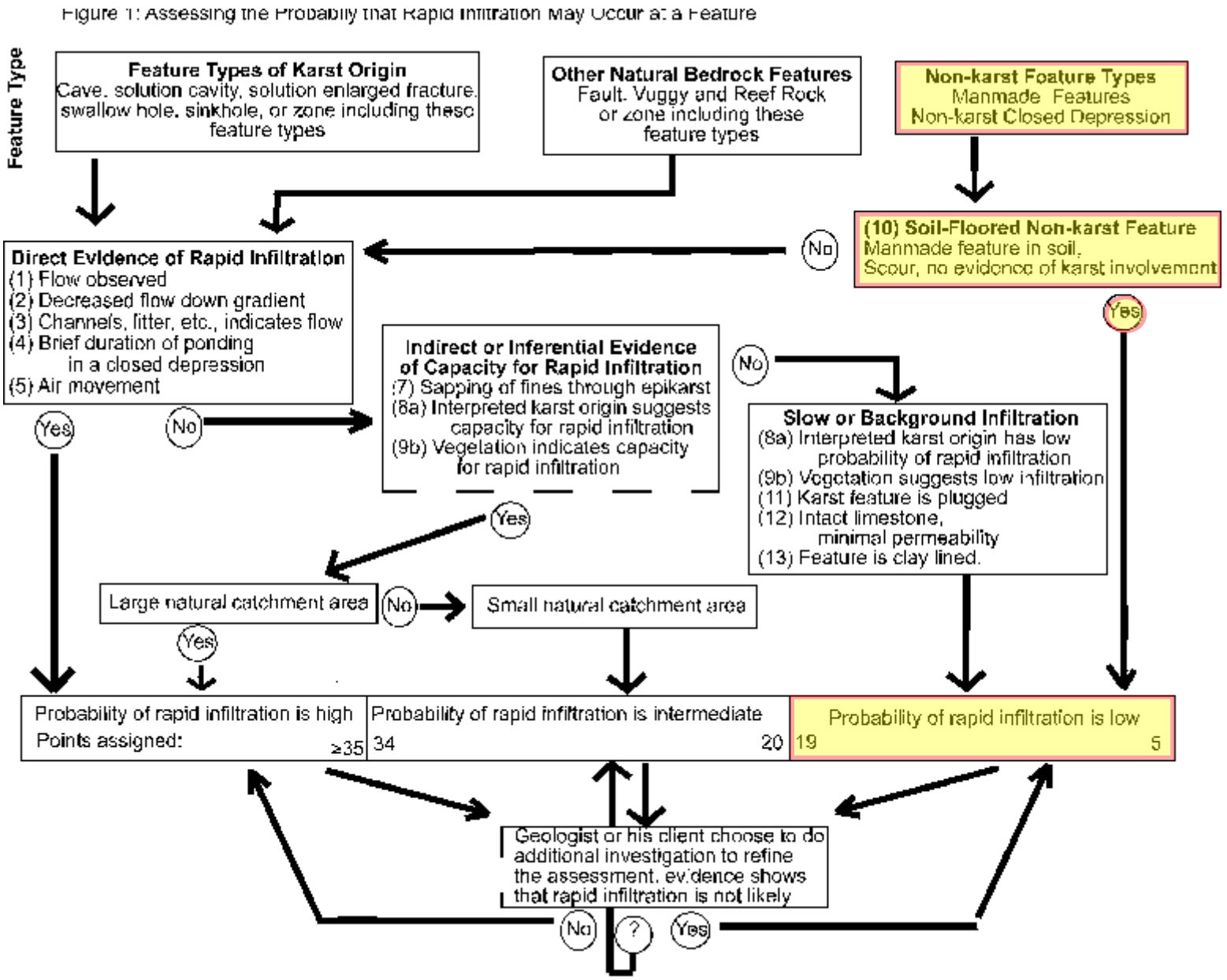
Feature (W-10): Water Well



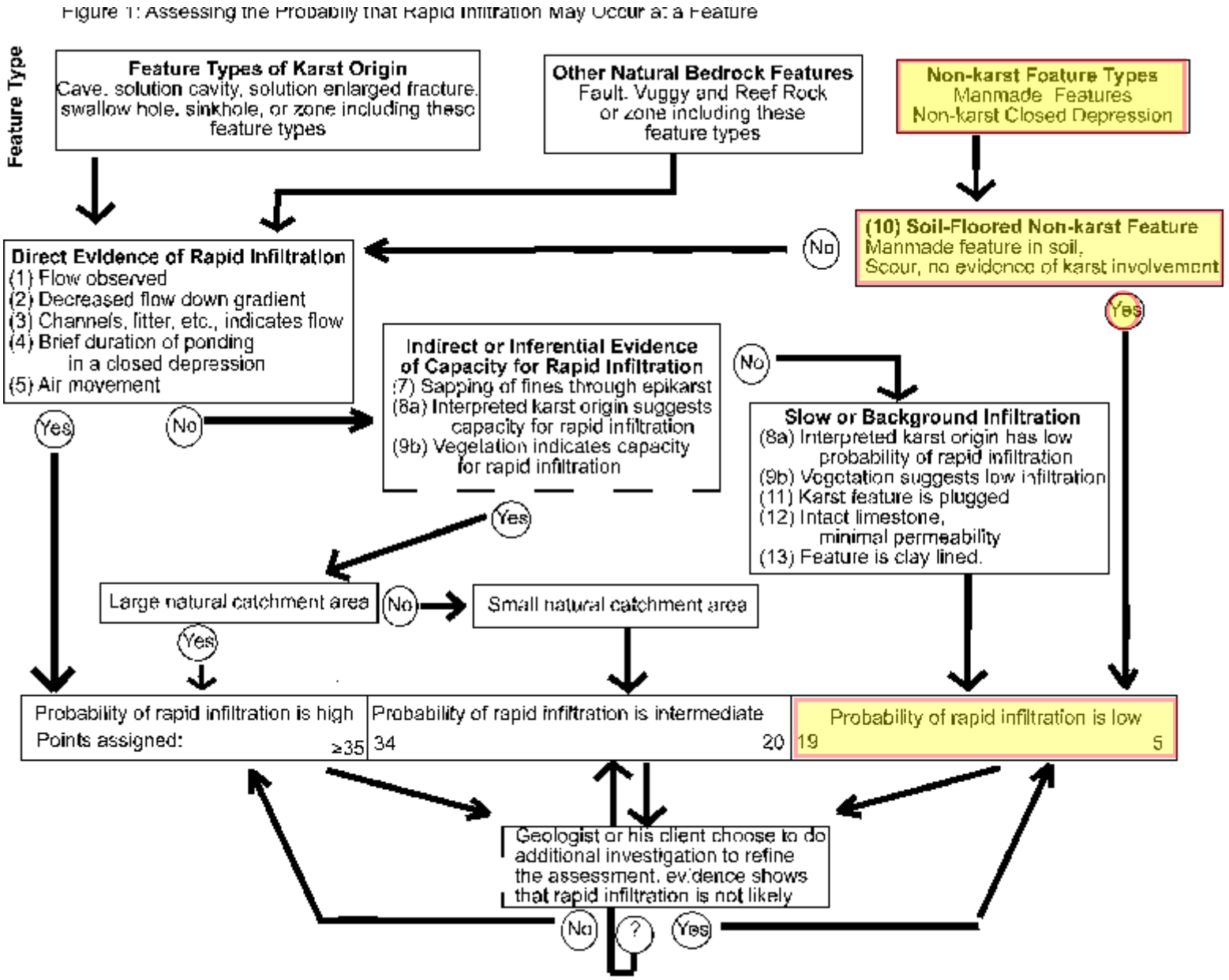
Feature (W-11): Water Well



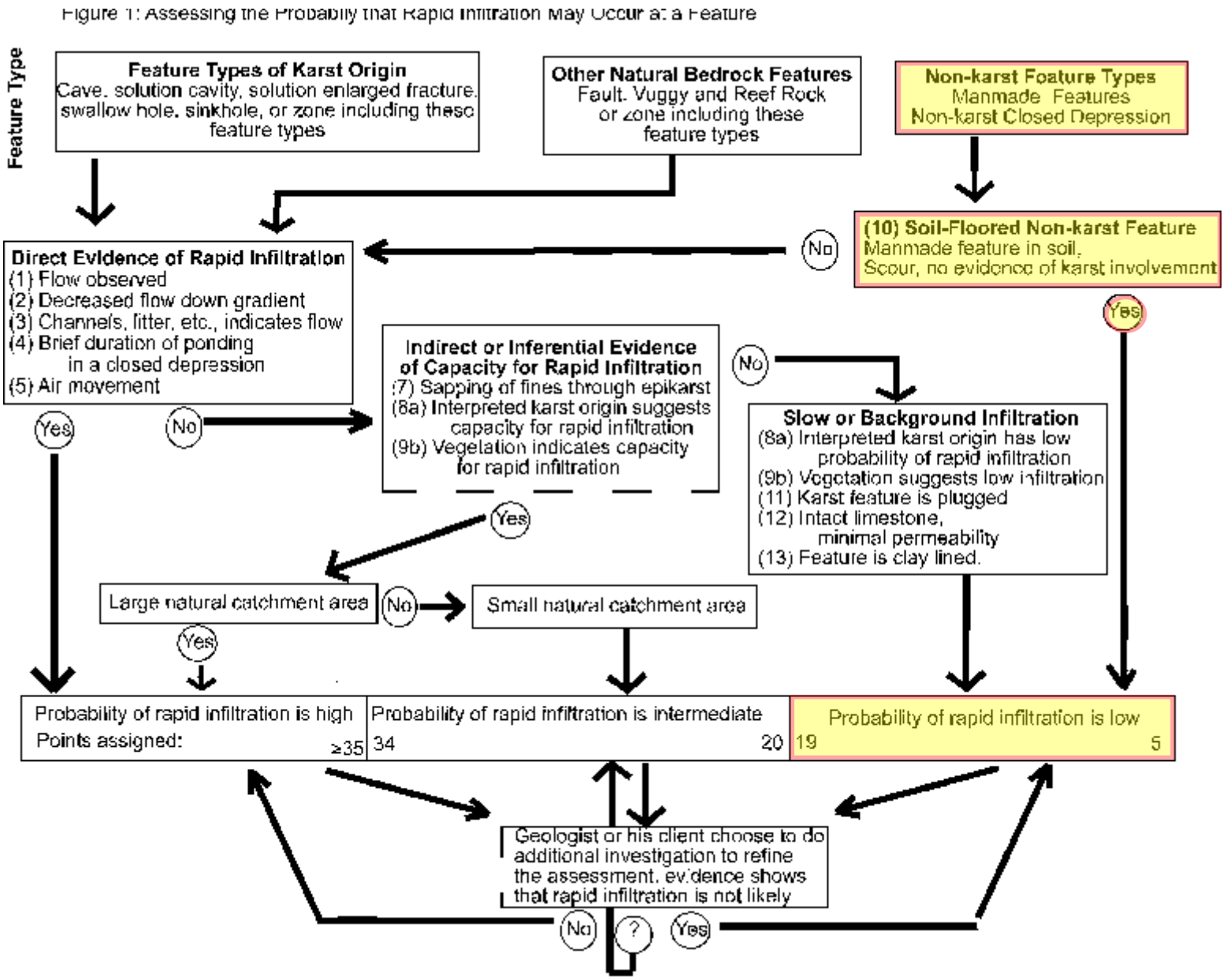
Feature (W-12): Water Well



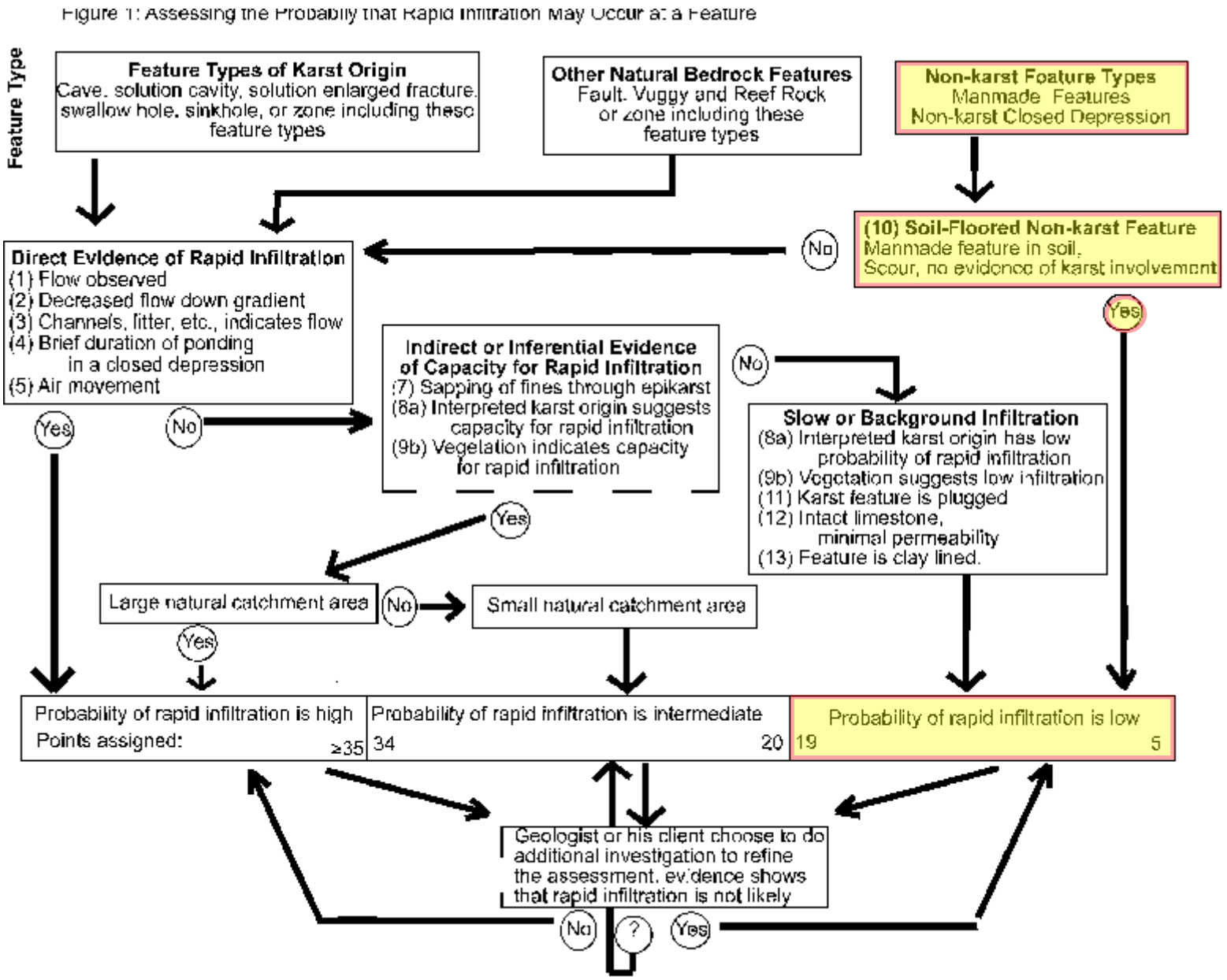
Feature (ST-13): Stock Tank



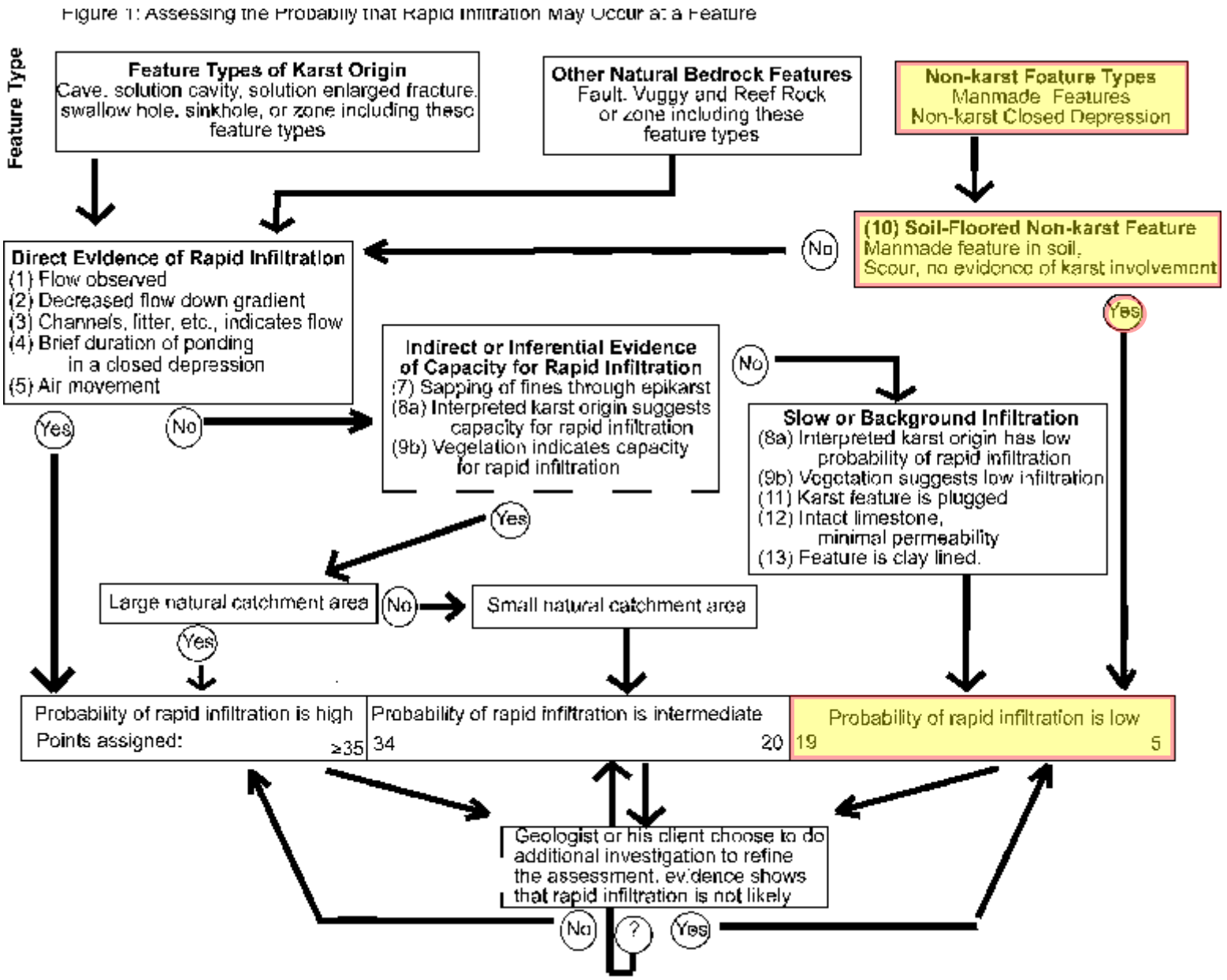
Feature (W-14): Water Well



Feature (W-15): Water Well

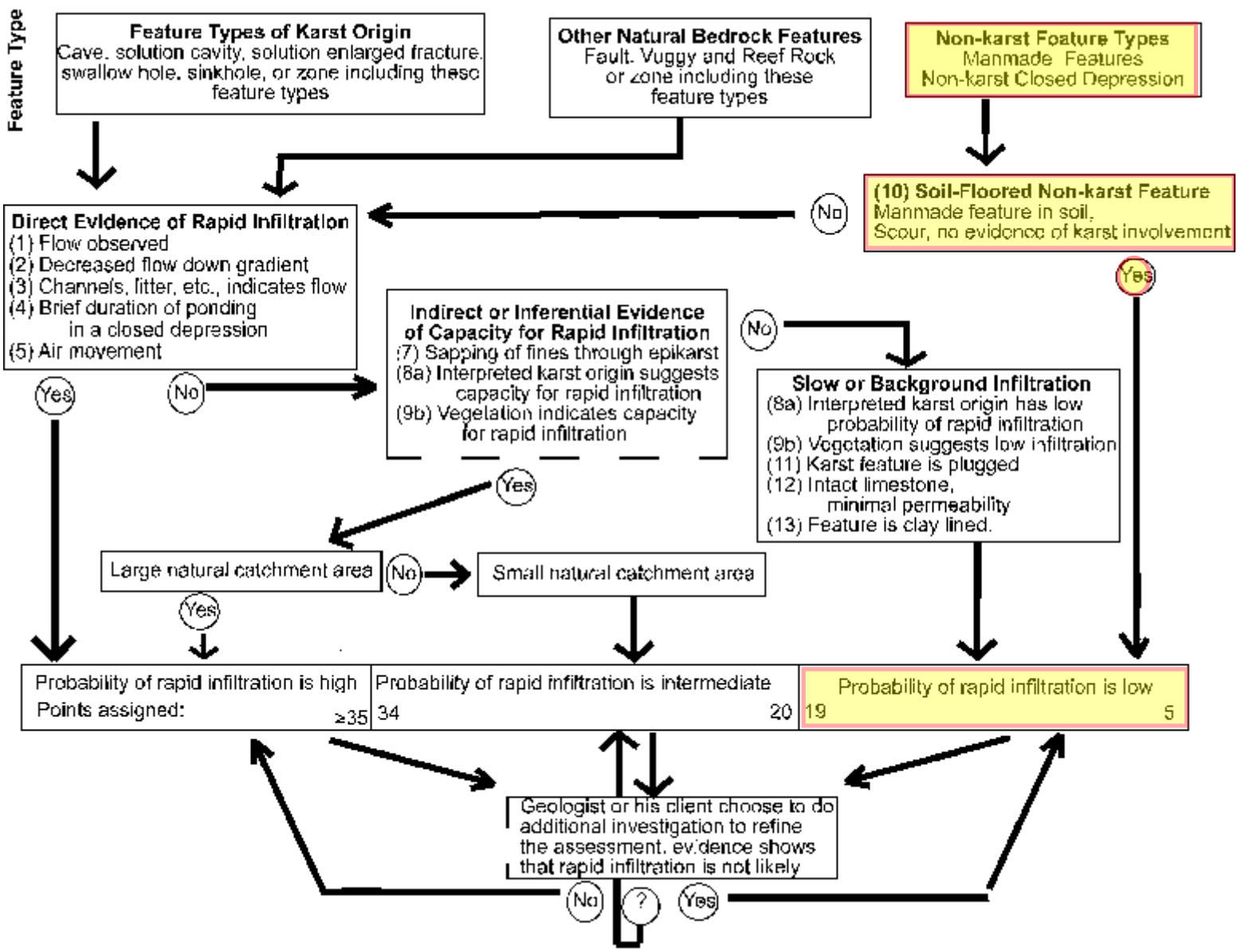


Feature (W-16): Water Well

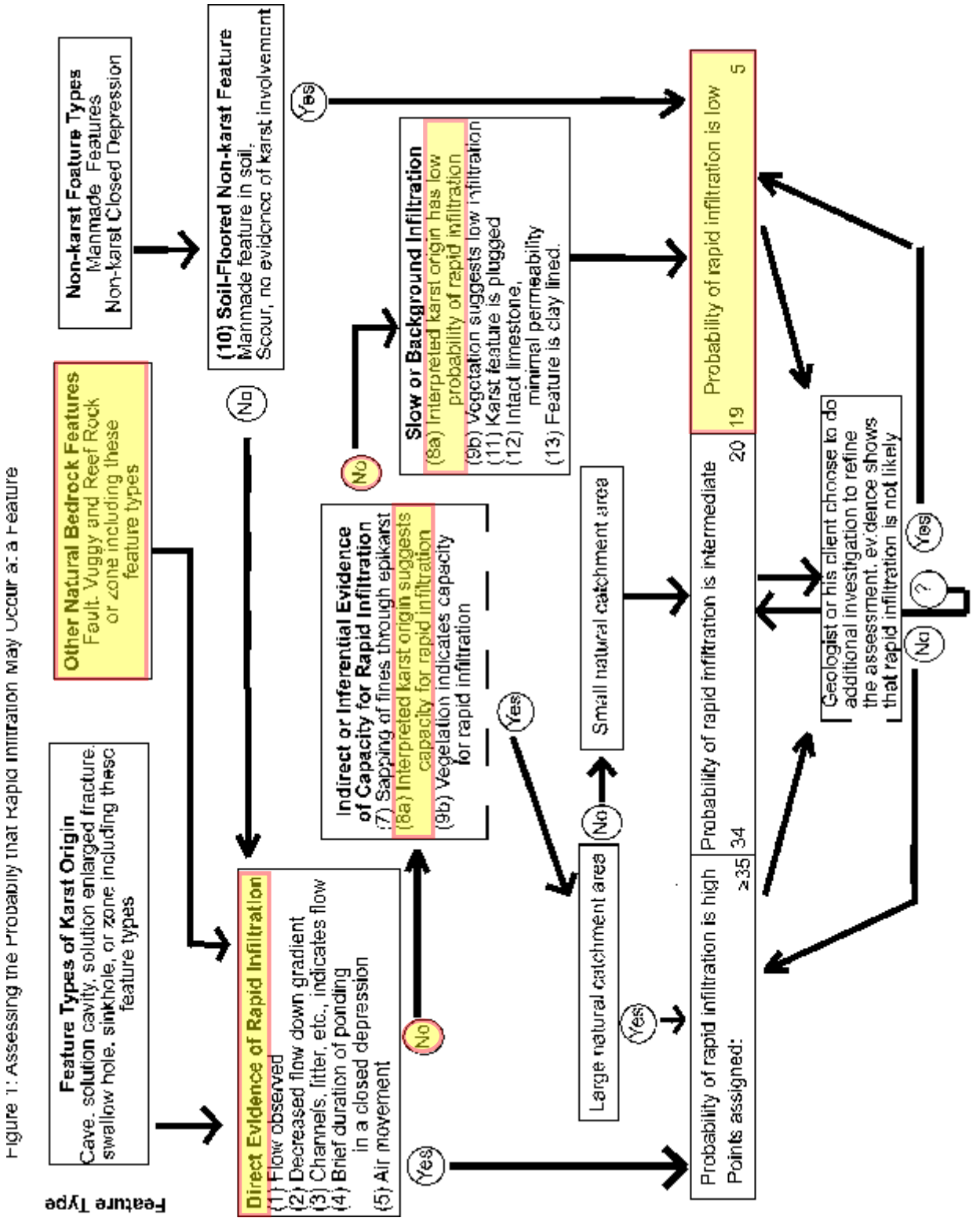


Feature (ST-17): Stock Tank

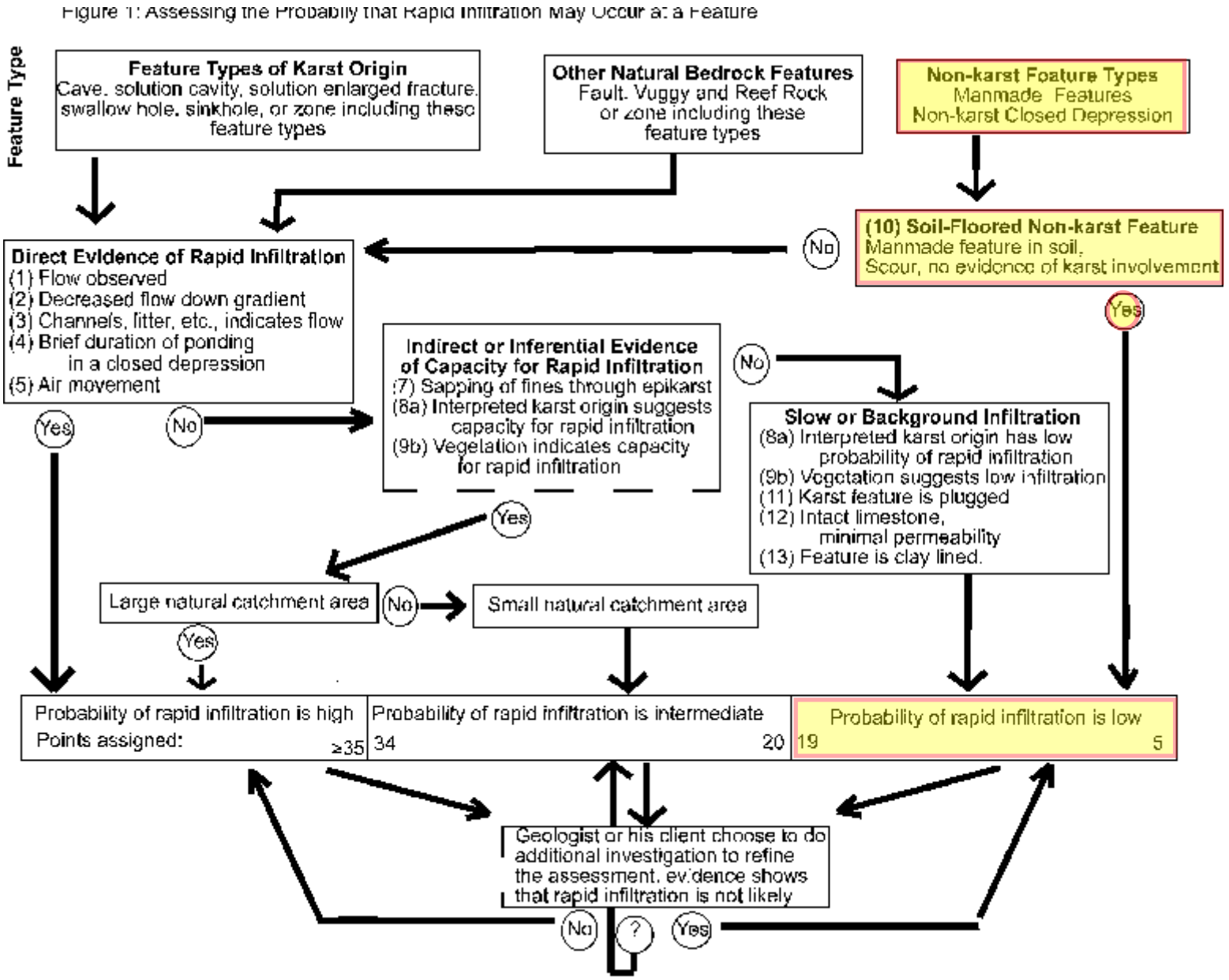
Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



Feature F-18: Surface Outcrop



Feature (ST-19): Stock Tank



Feature (F-20): Quarry

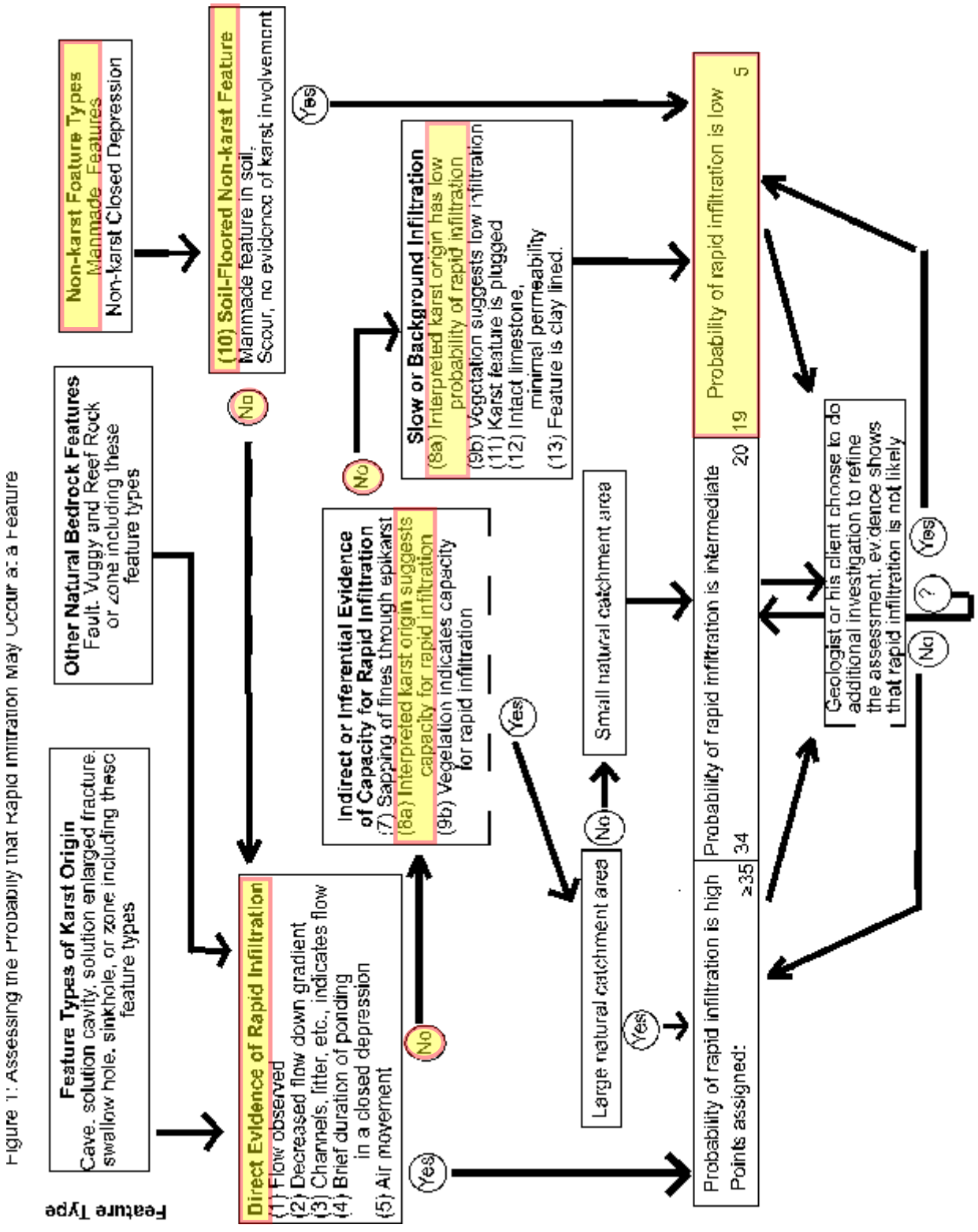
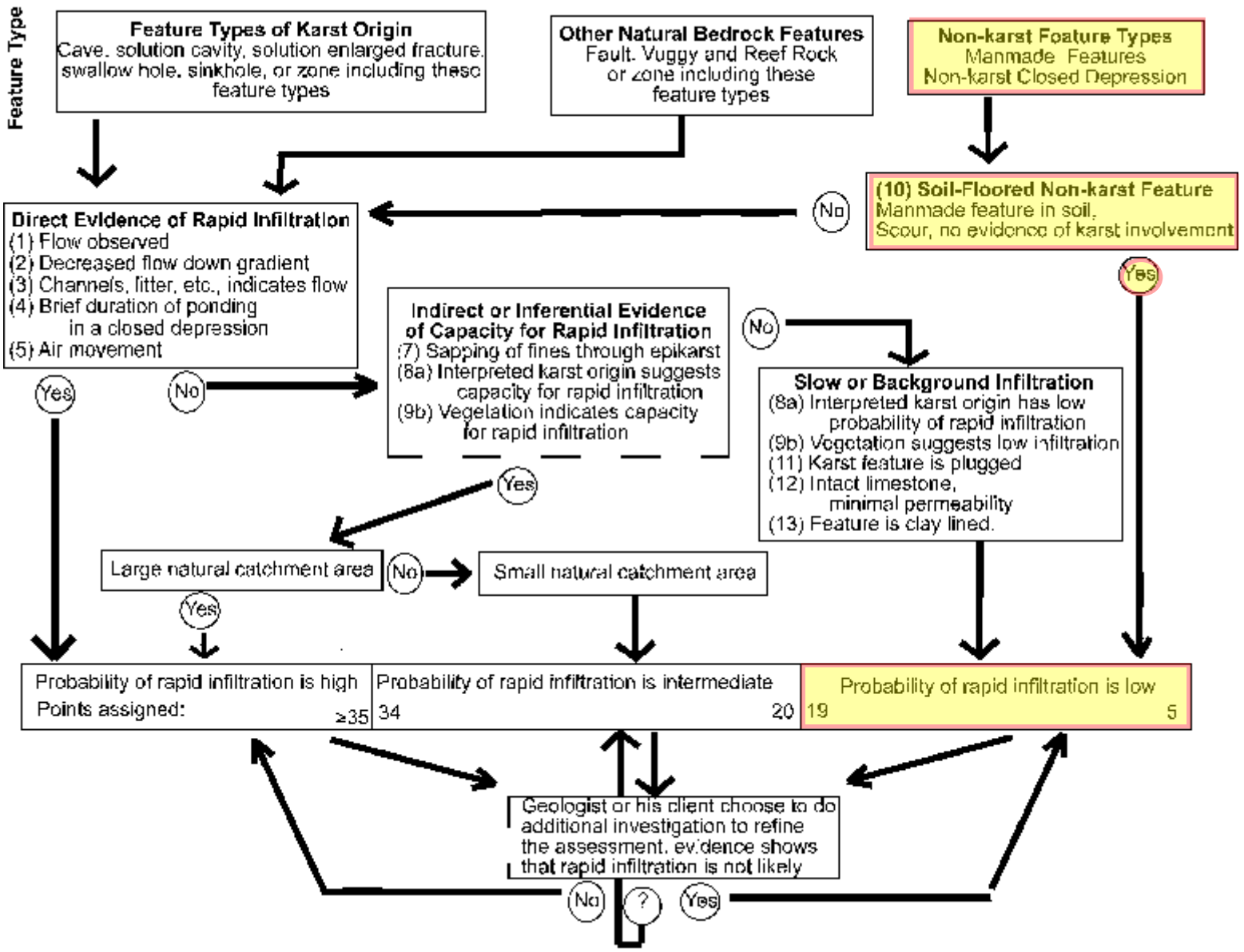


Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

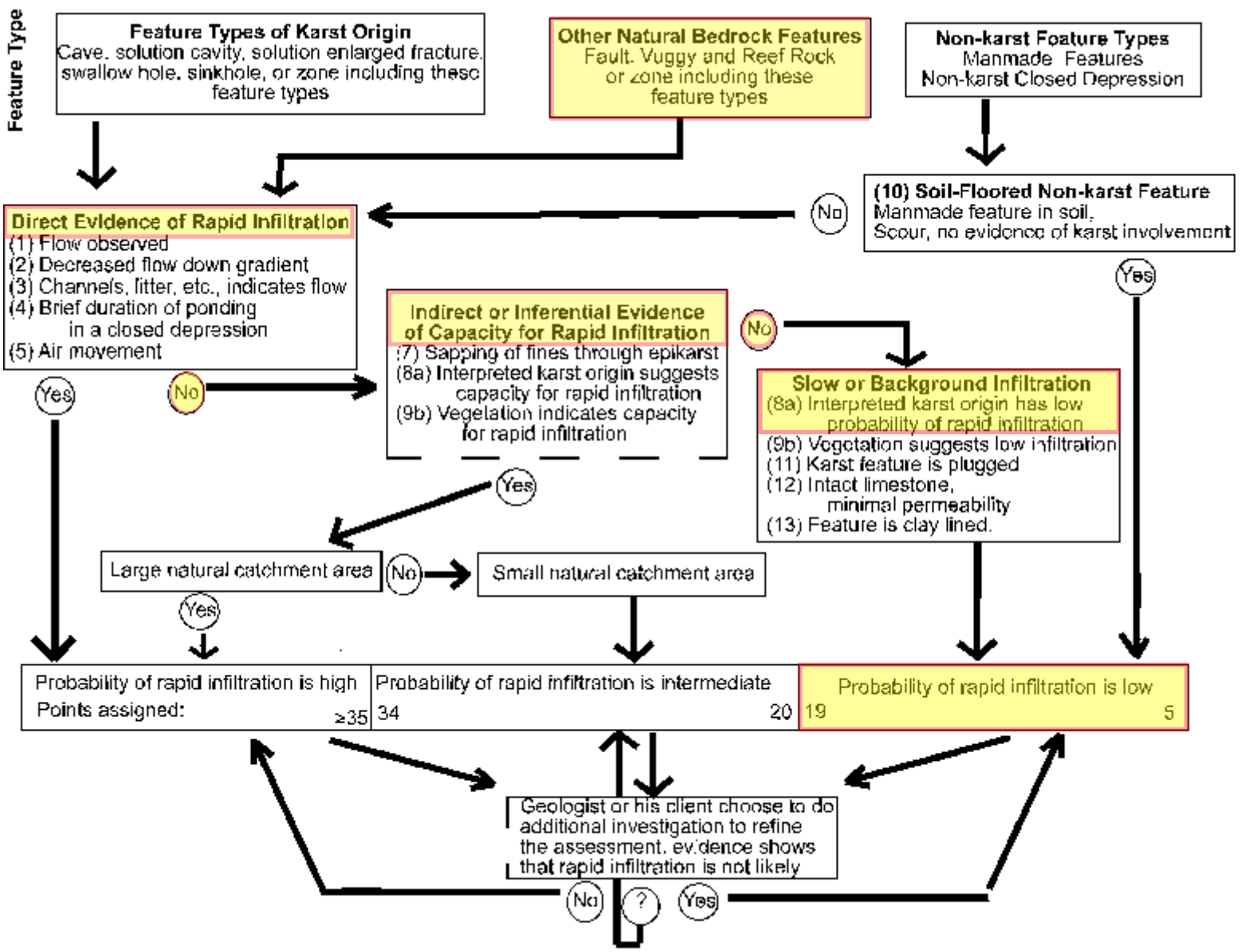
Feature (F-21): Borrow Pit)

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

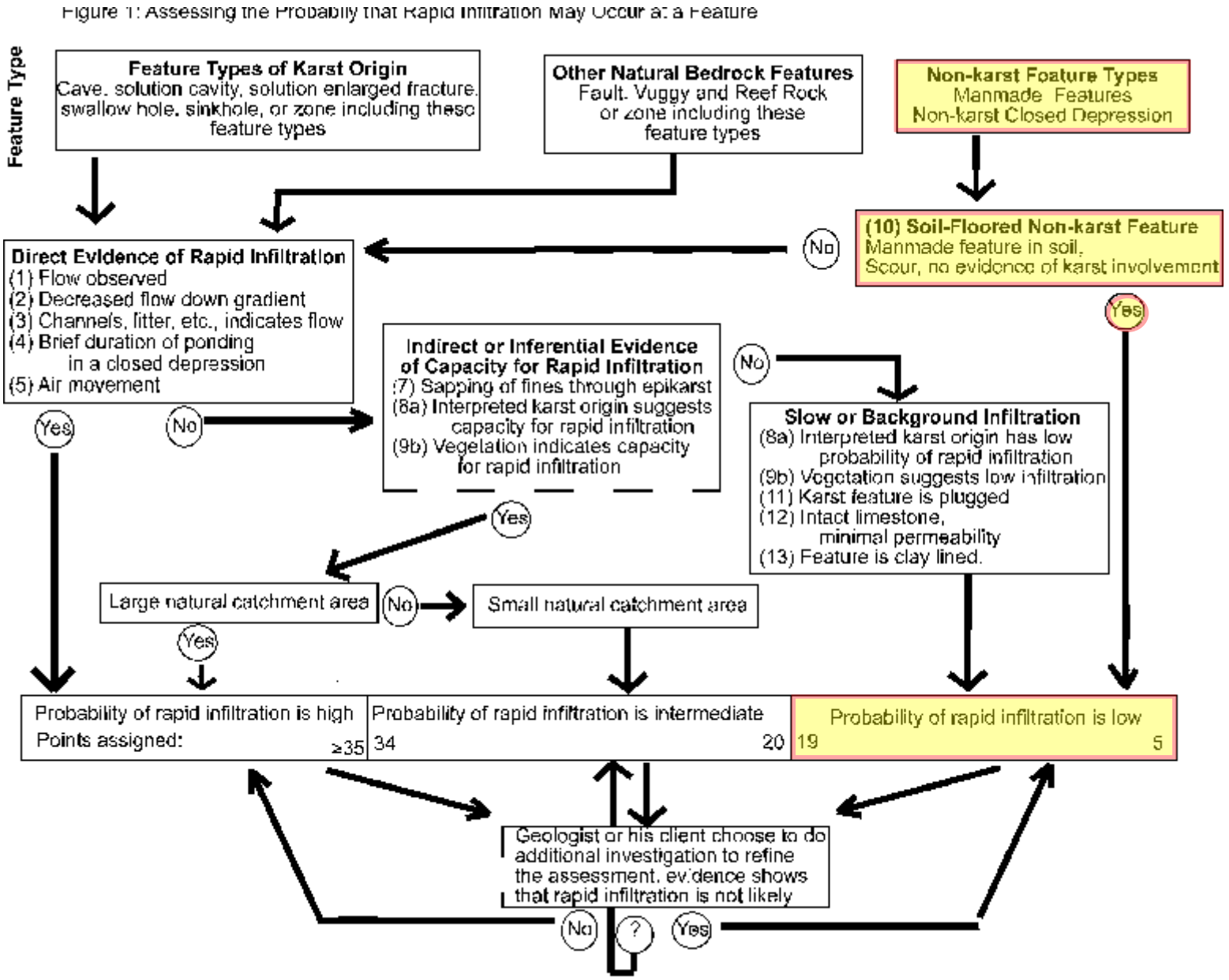


FEATURE (S-22) - Stream

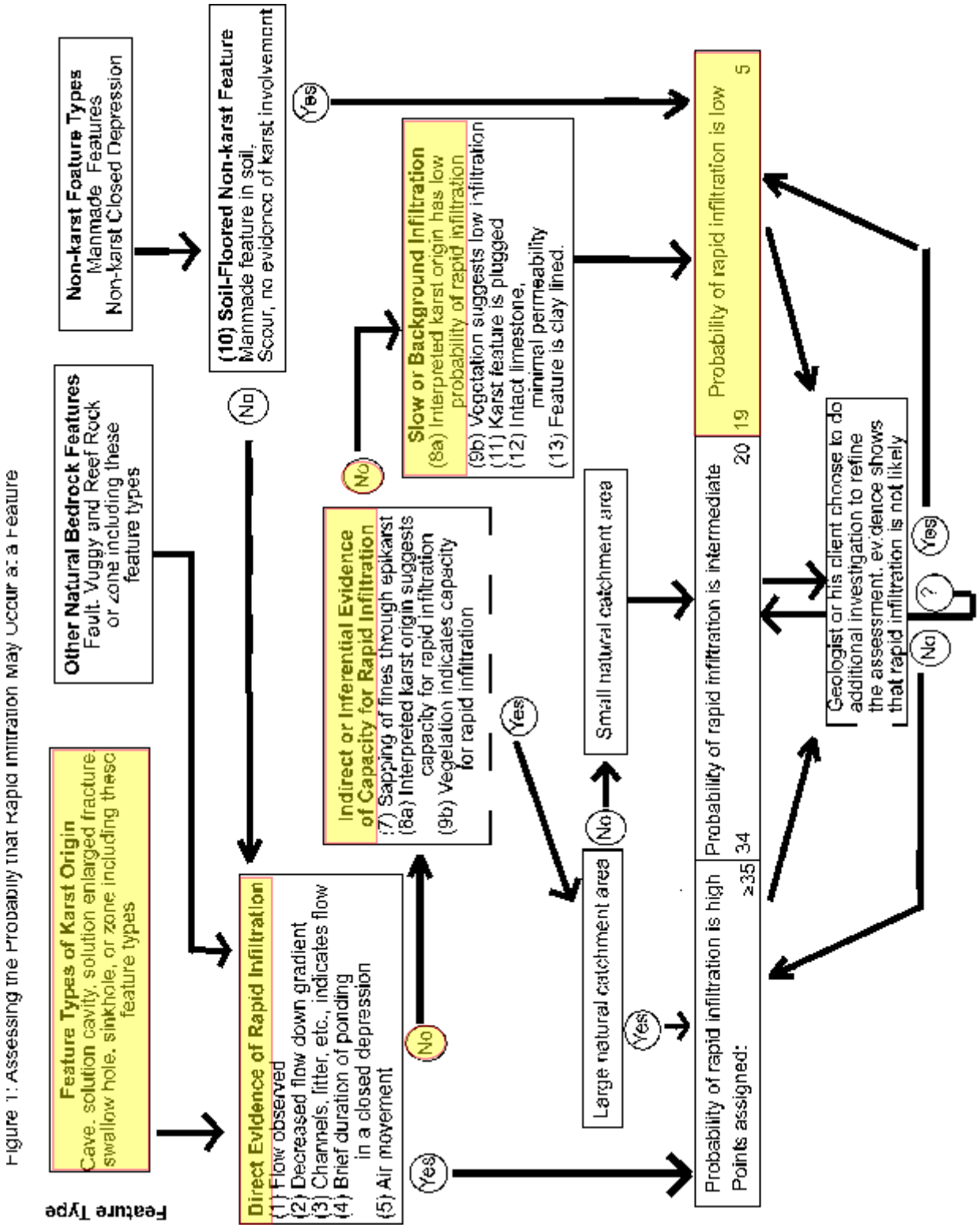
Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



Feature (F-23): Closed Depression

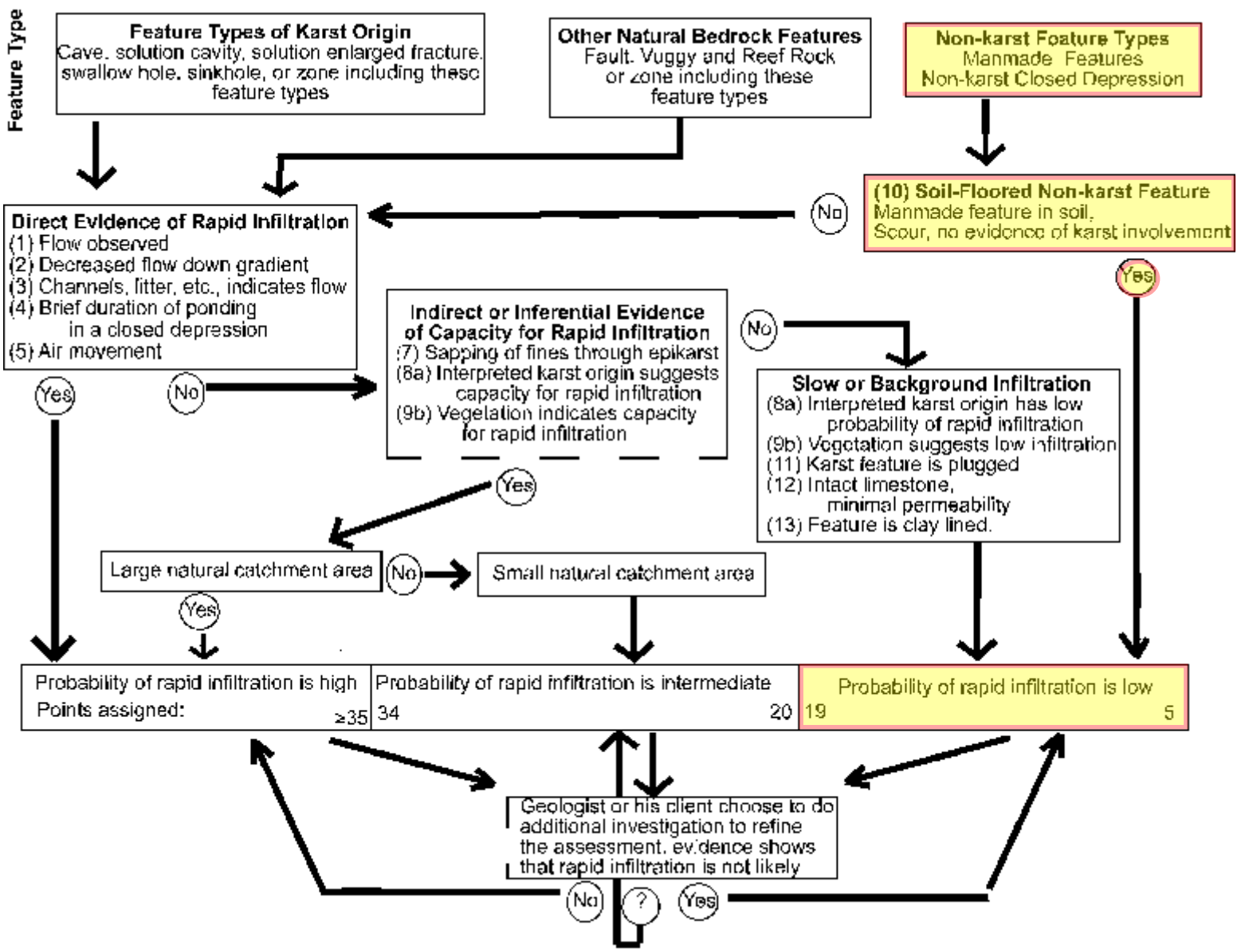


Feature (F-24): Solution Cavity



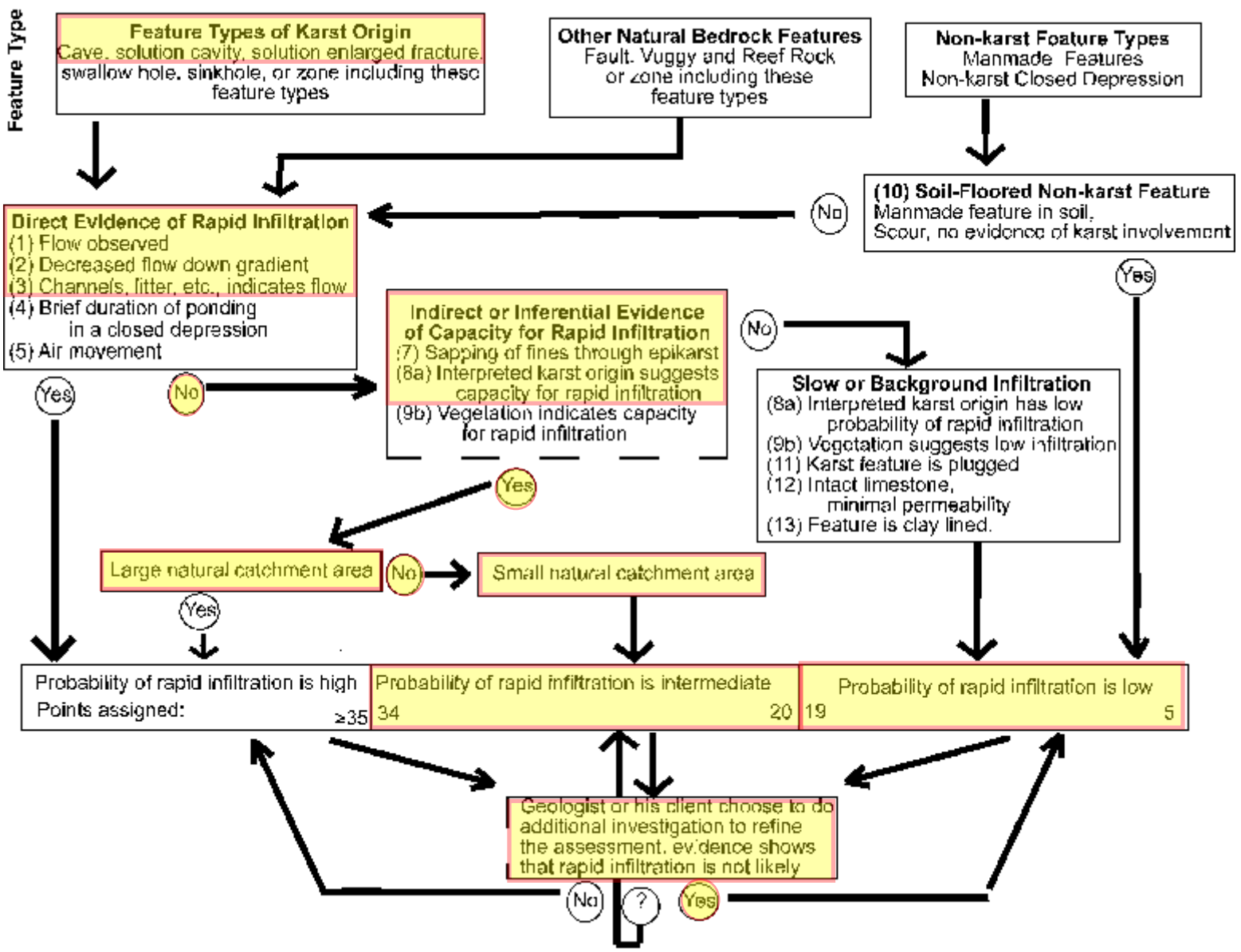
Feature (F-25): Closed Depression

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



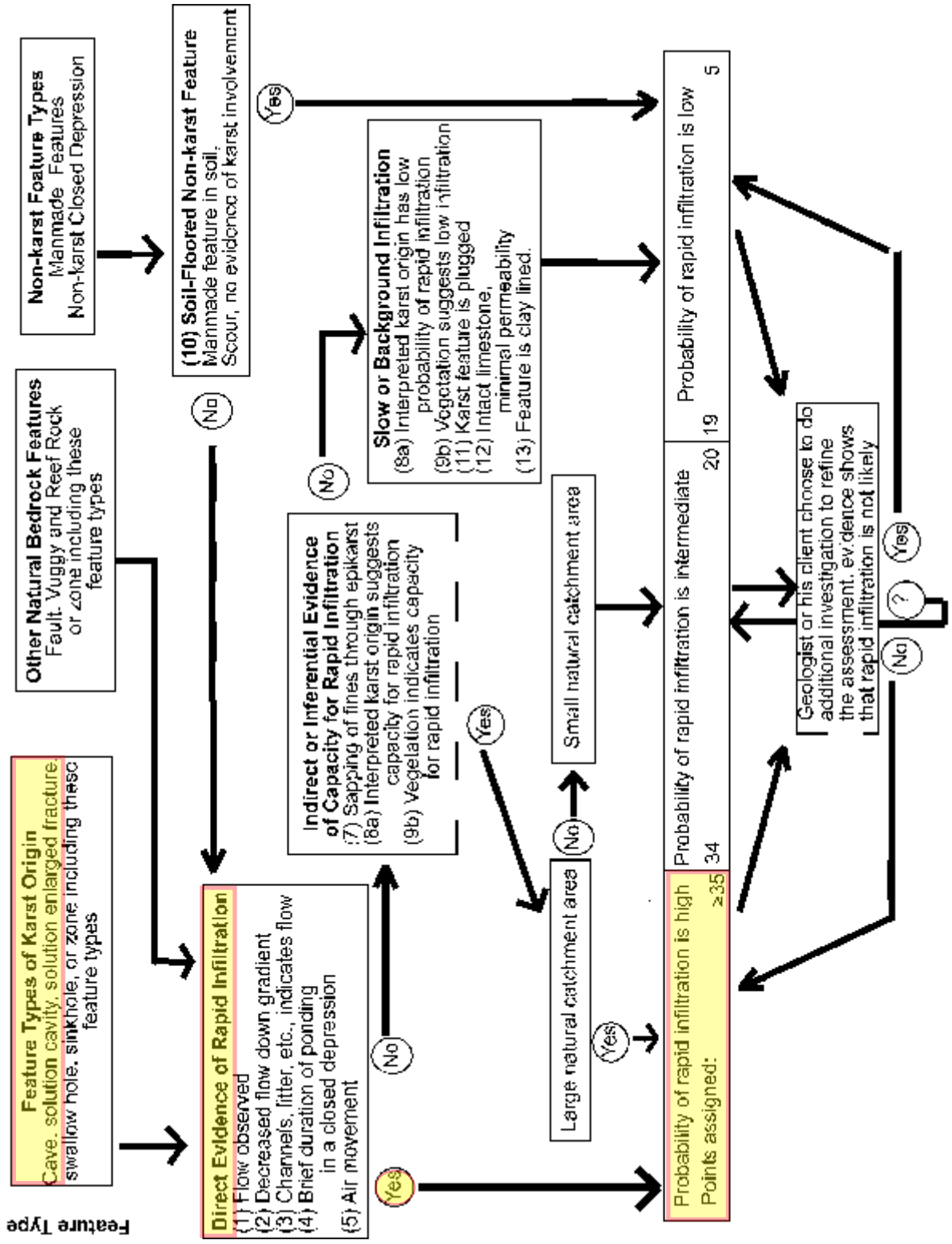
Feature (F-26): Solution Enlarged Fracture

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



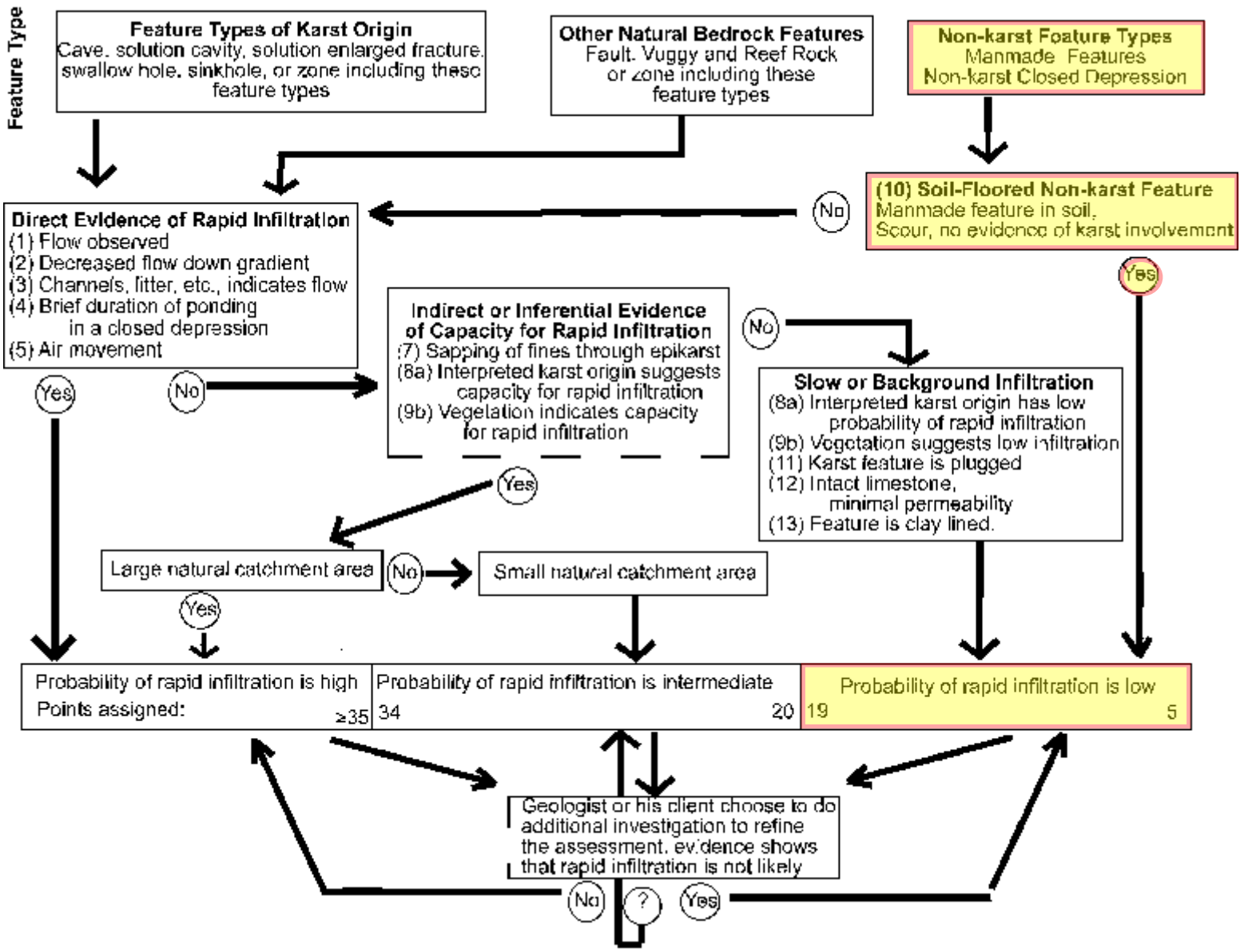
Feature (C-27): Cave

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



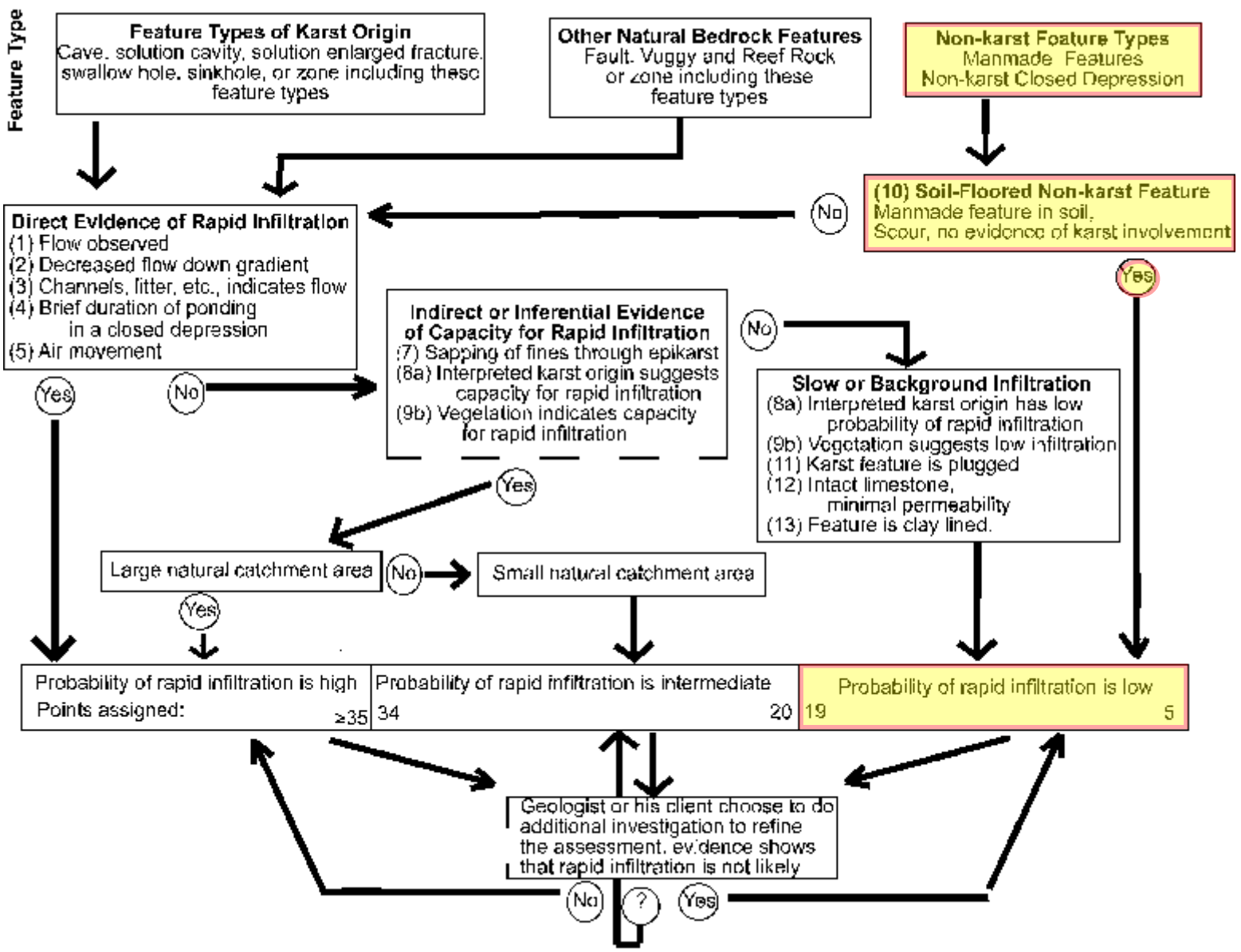
Feature (W-28): Water Well

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



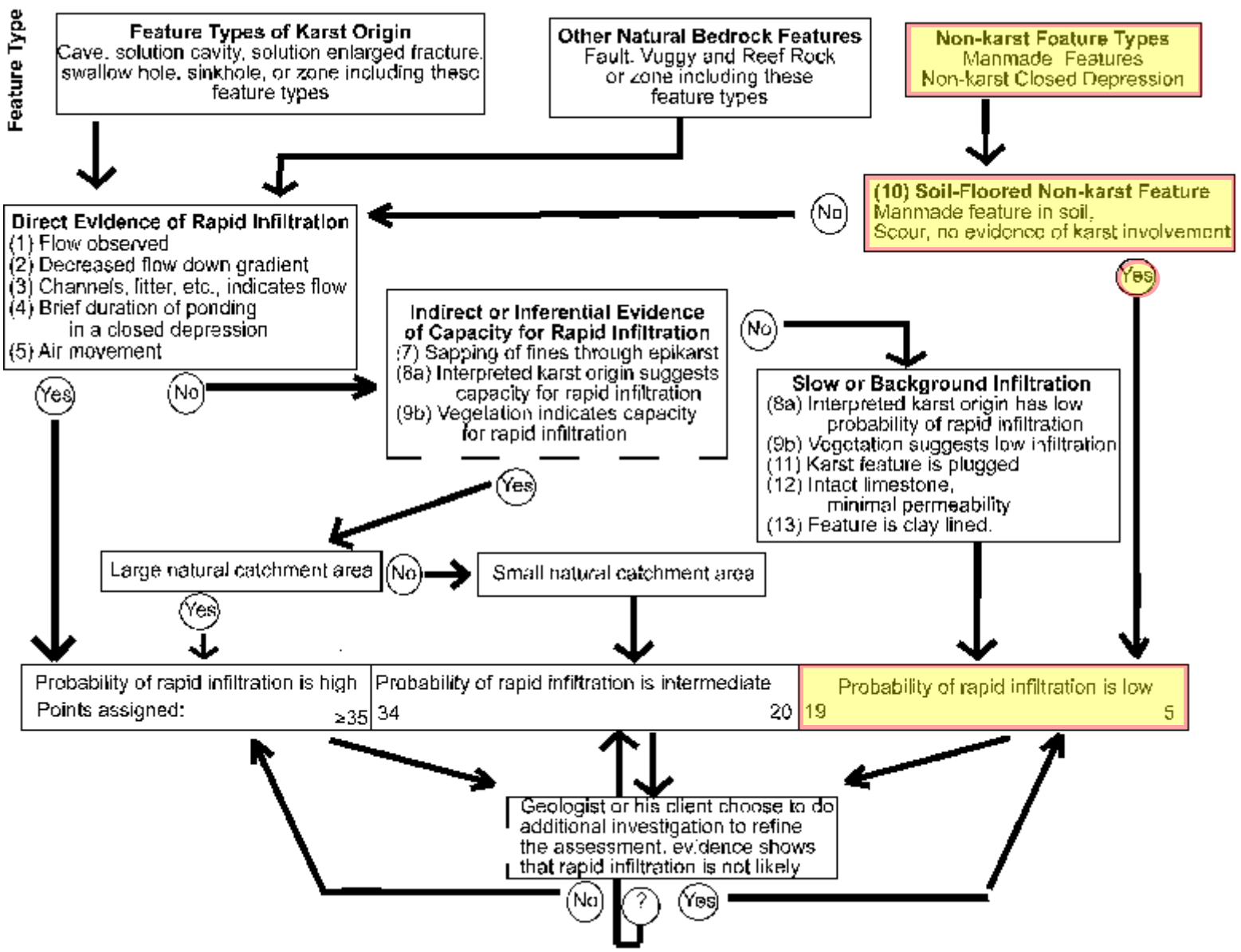
Feature (F-29): Closed Depression

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

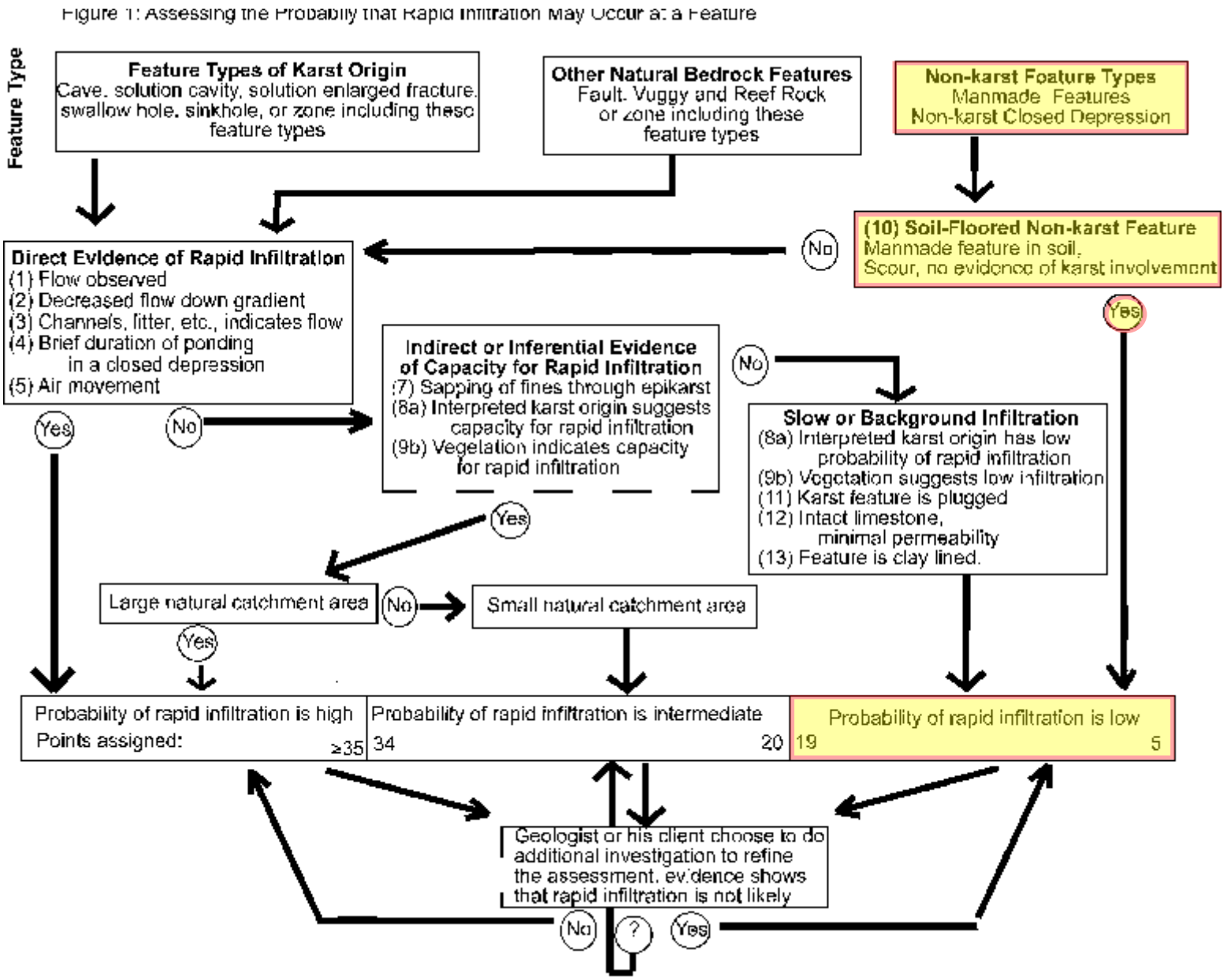


Feature (W-30): Water Well

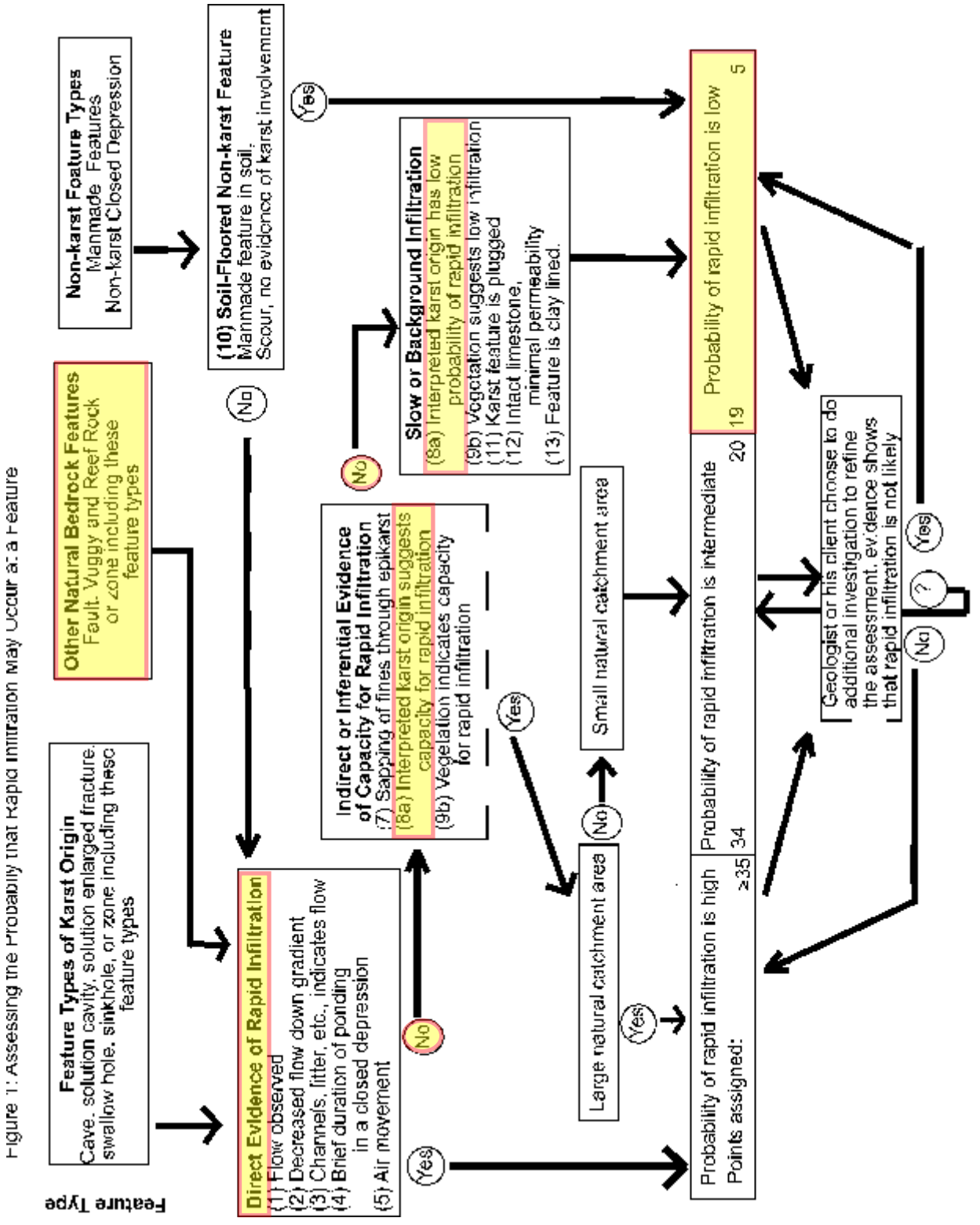
Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



Feature (F-31): Closed Depression



Feature F-32: Surface Outcrop



Feature (W-33): Water Well

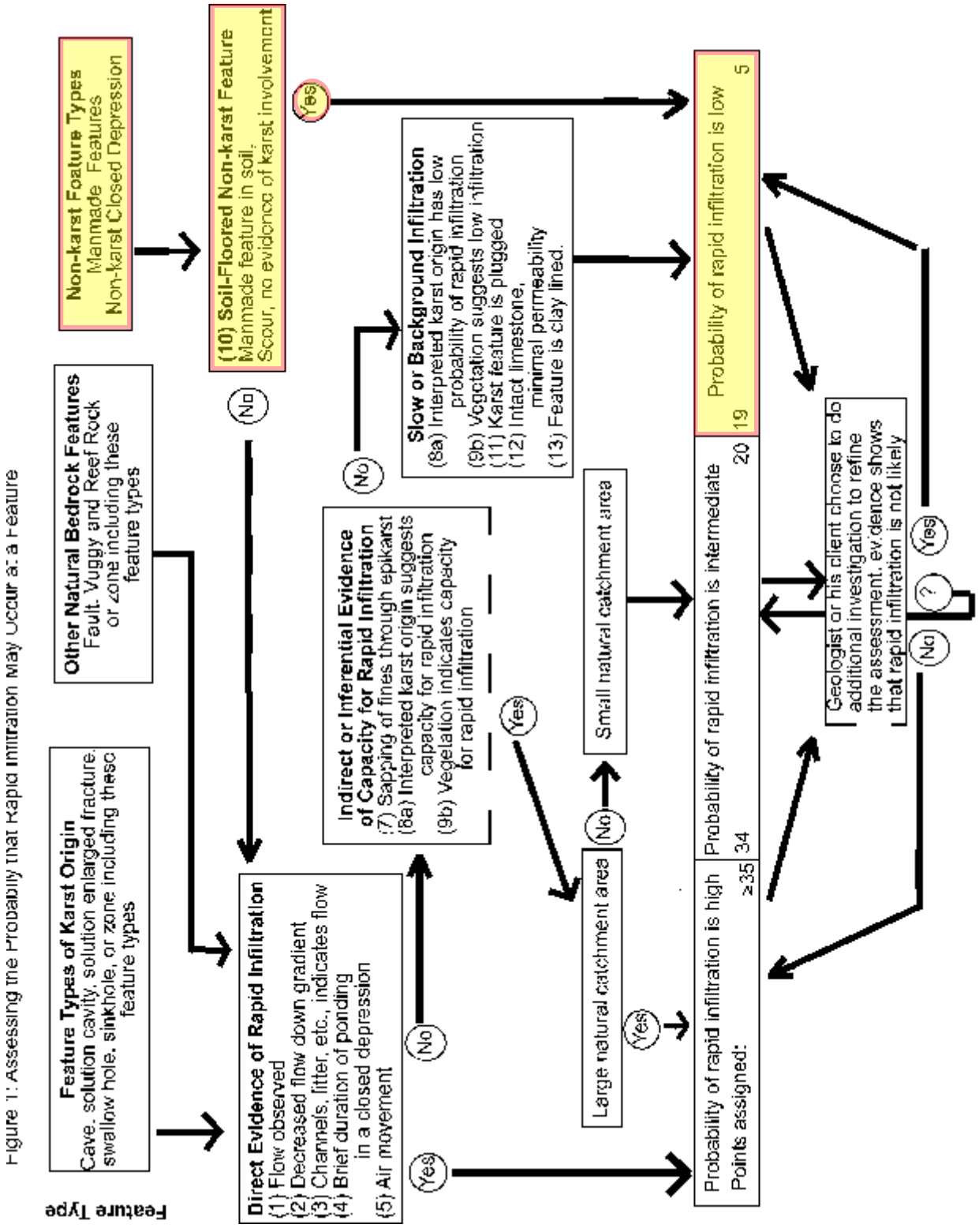
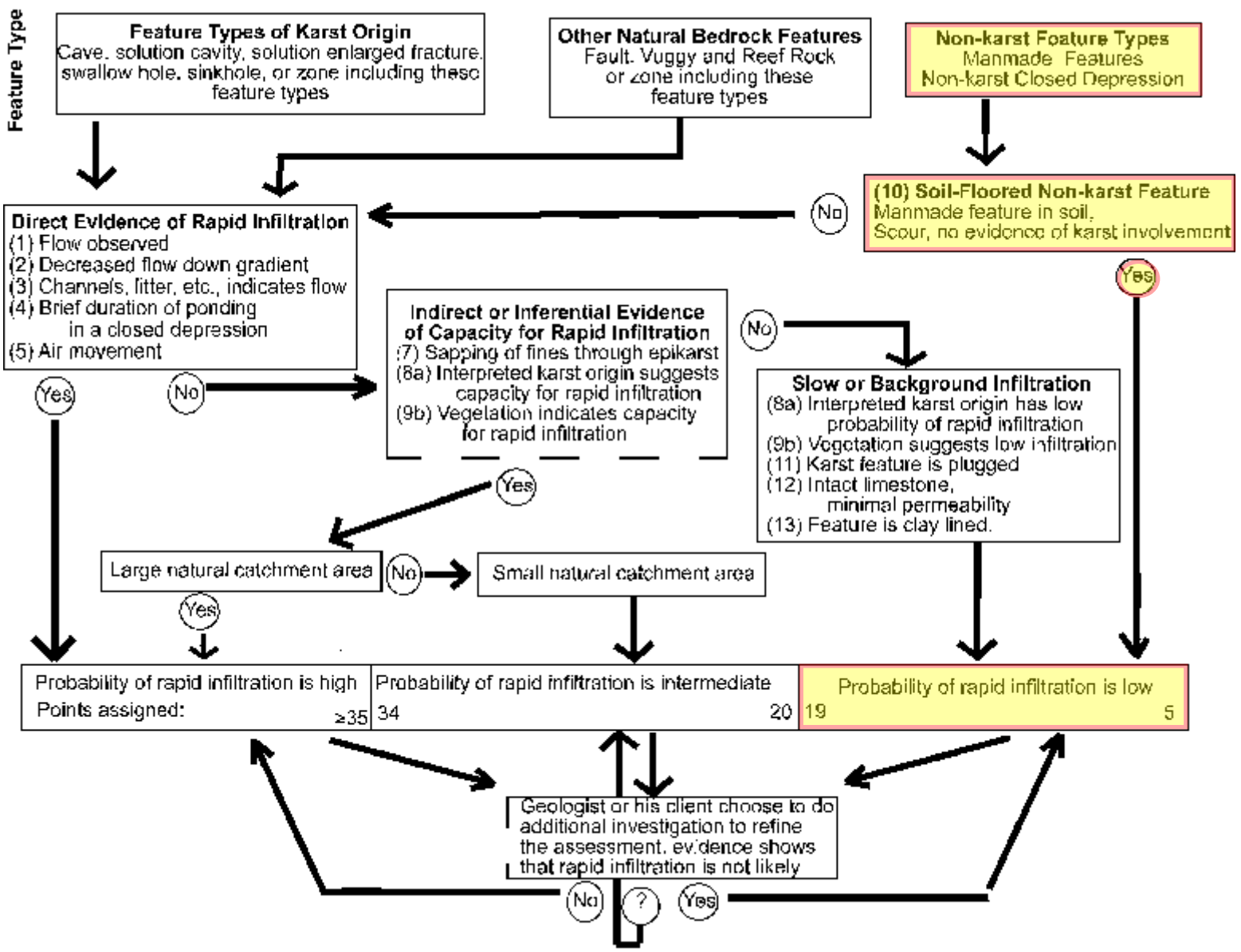


Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

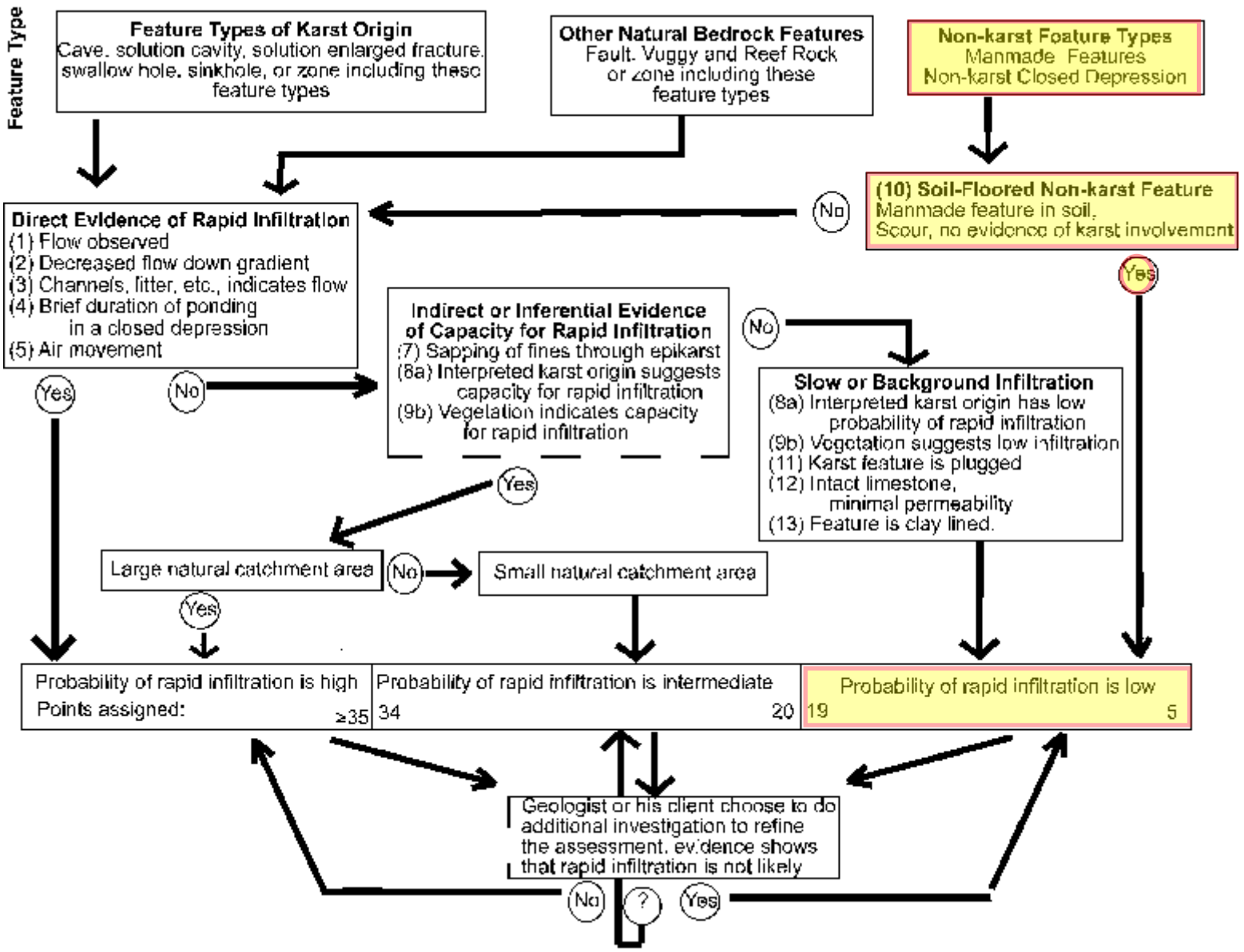
Feature (W-34): Water Well

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



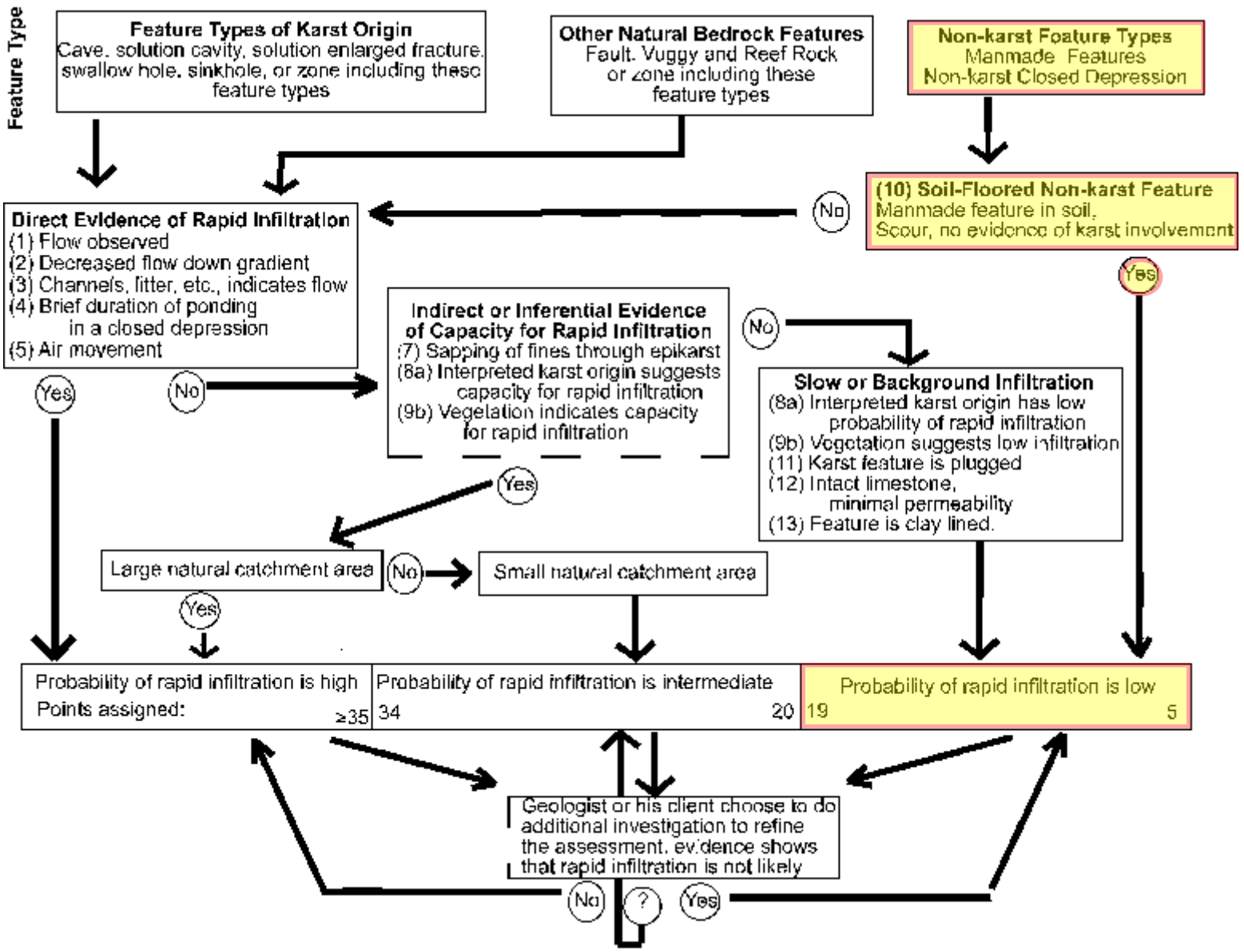
Feature (ST-35): Stock Tank

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

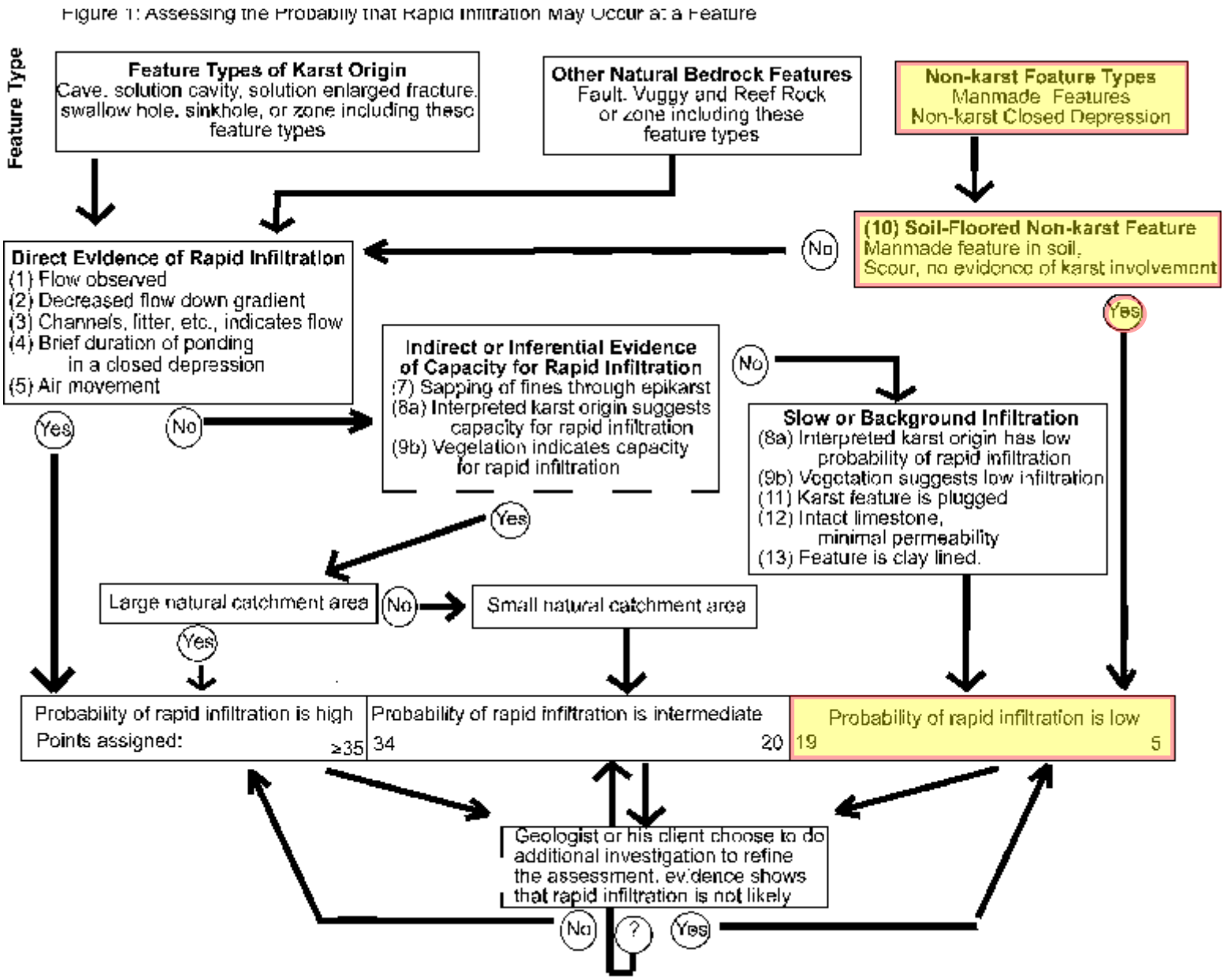


Feature (W-36): Water Well

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

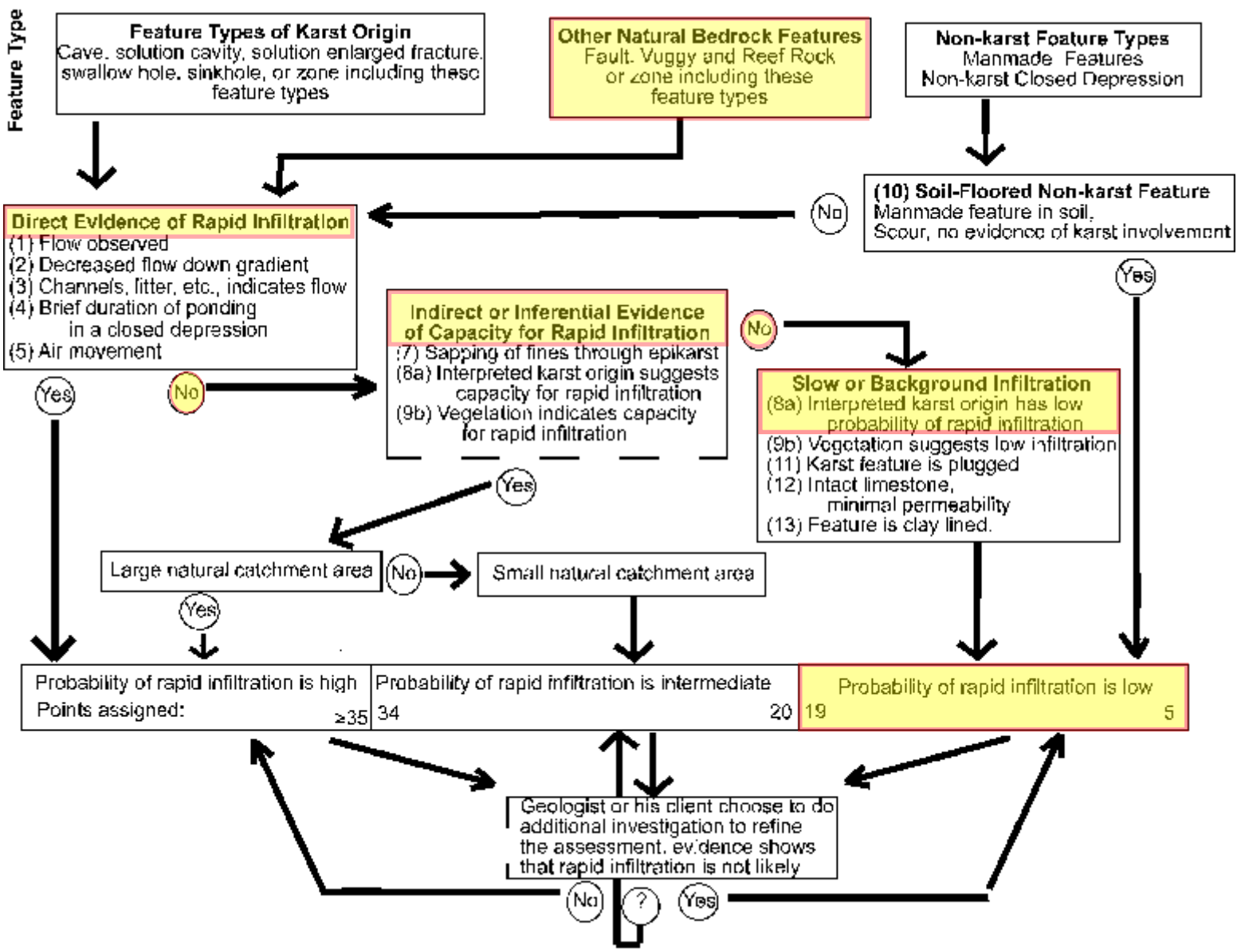


Feature (W-37): Water Well

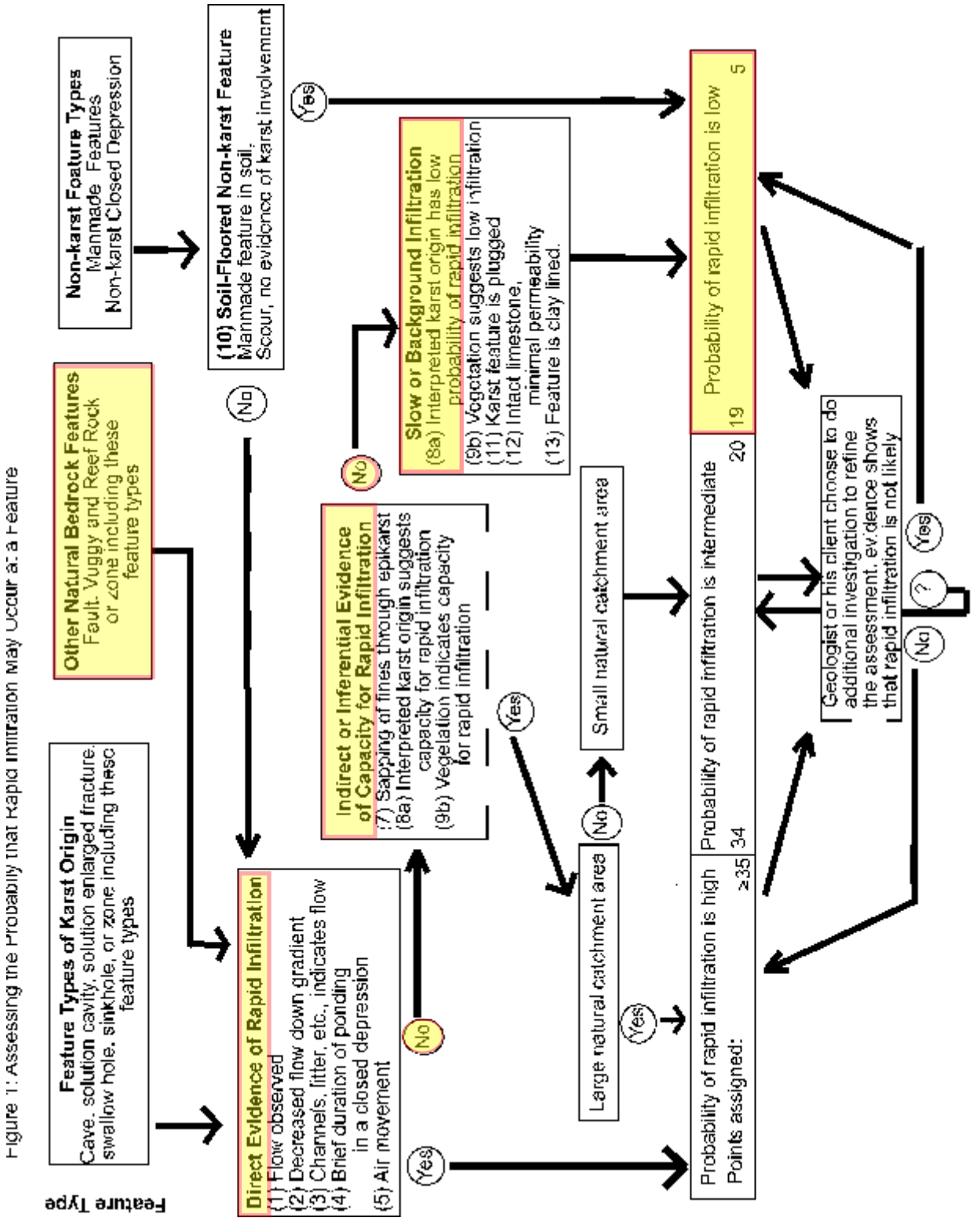


FEATURE (D-38) - Drainage Way

Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature



FEATURE (D-39) - Drainage Way



FEATURE (D-40) - Drainage Way

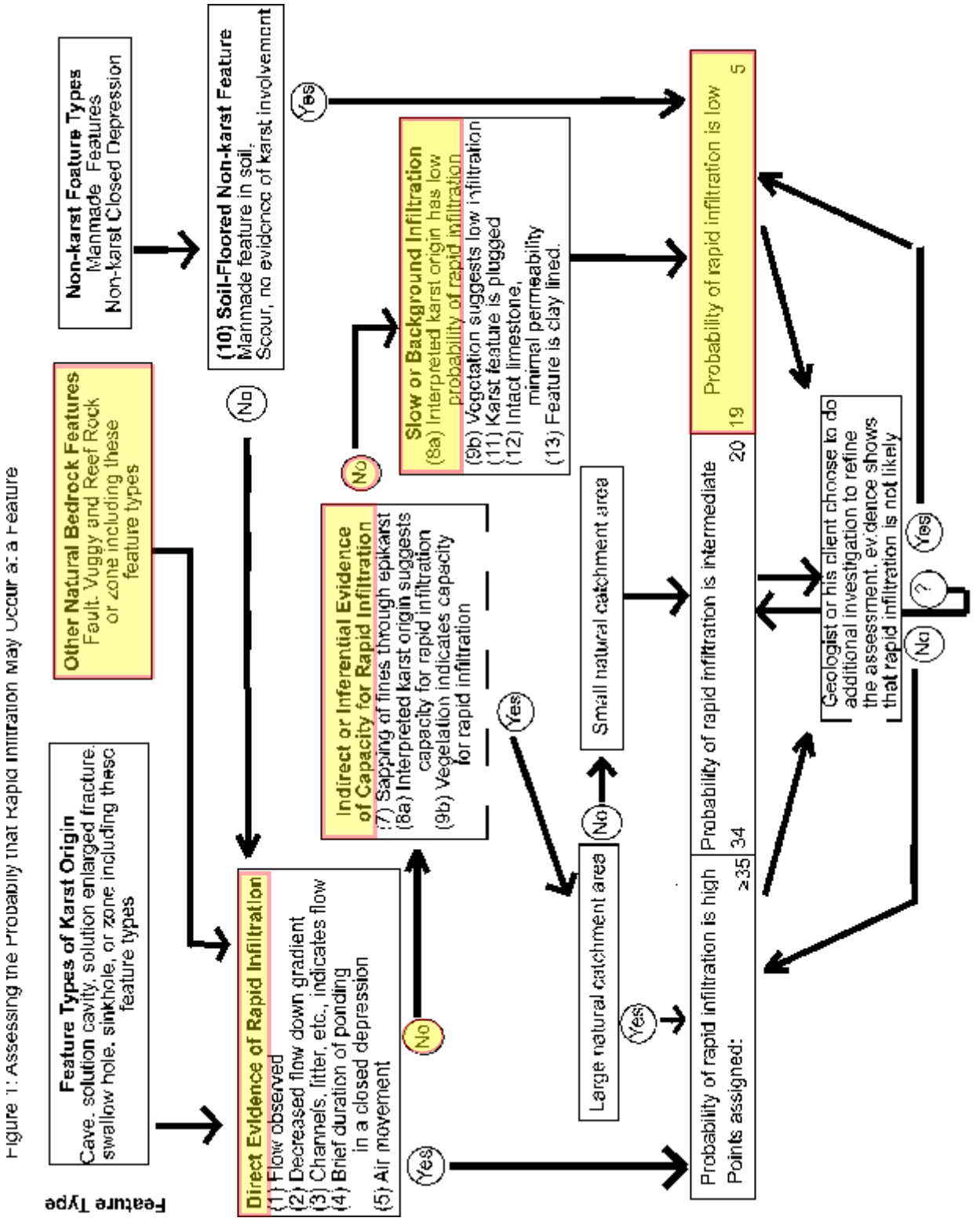


Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

FEATURE (D-41) - Drainage Way

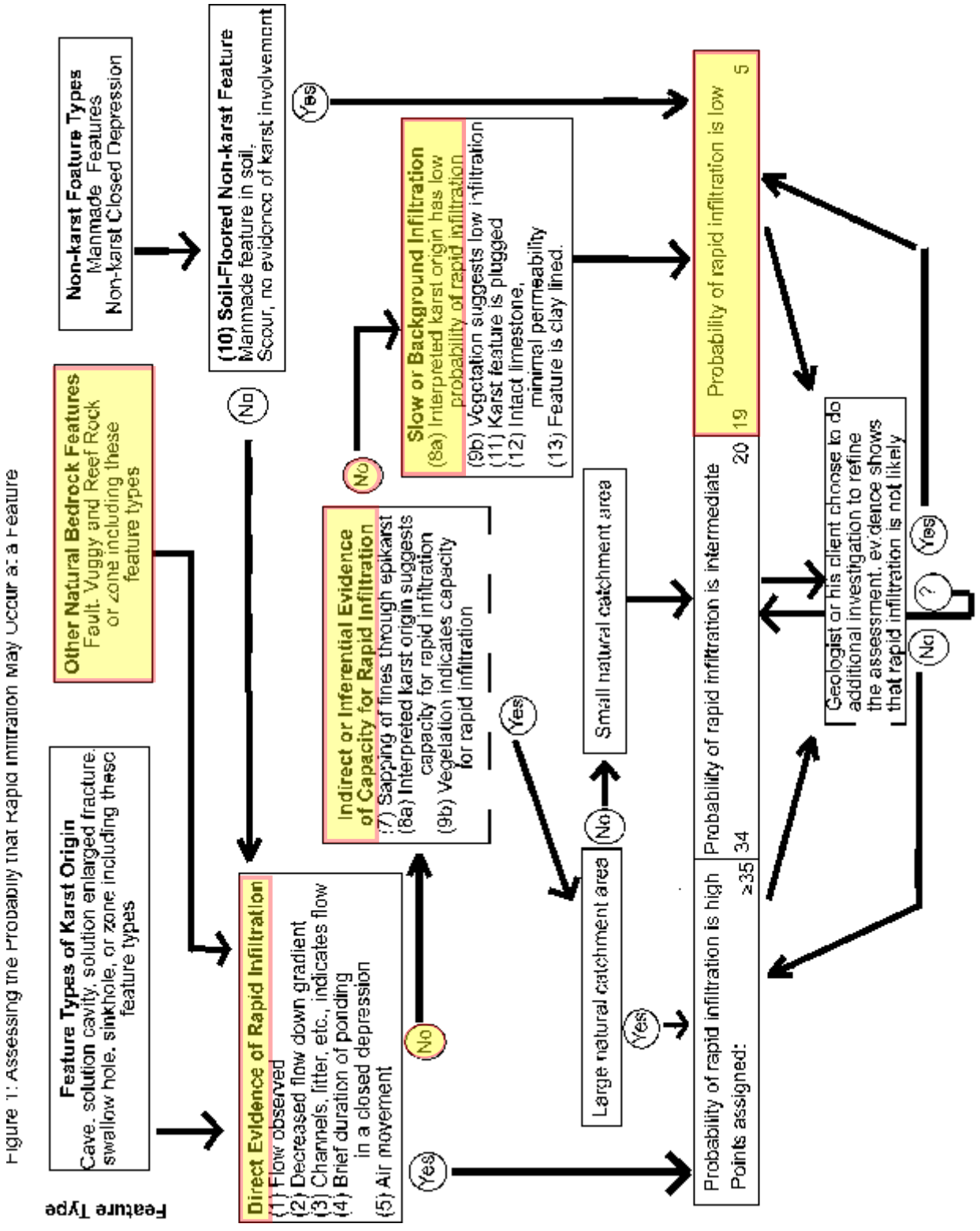
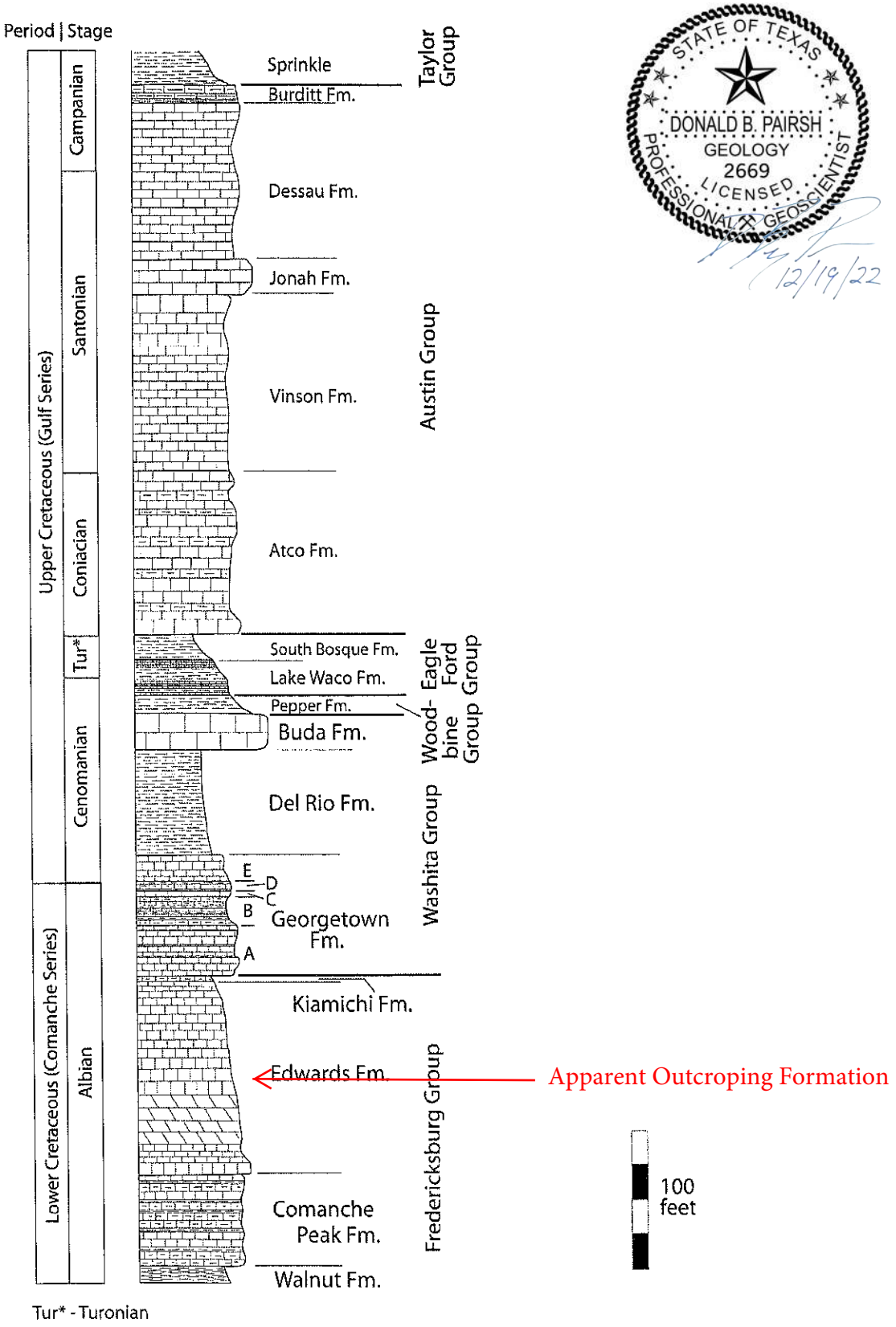


Figure 1: Assessing the Probability that Rapid Infiltration May Occur at a Feature

Attachment B – Stratigraphic Column

Generalized Stratigraphic Column of the Round Rock Area



STATE OF TEXAS
DONALD B. PAIRSH
GEOLOGY
2669
LICENSED
PROFESSIONAL GEOSCIENTIST

12/19/22

Source:
Bedrock Geology of Round Rock and Surrounding Areas, Williamson and Travis Counties, Texas
By: Todd B. Housh

Attachment C – Site Geology

NARRATIVE DESCRIPTION OF SITE-SPECIFIC GEOLOGY
ATLAS RANCH
674.62 ACRE TRACT
JARRELL, WILLIAMSON COUNTY, TEXAS
01/21/2022-01/27/2022

LOCATION

The subject site is an approximate 674.62 acres, more or less, tract of land located at County Road 344 in Jarrell, Williamson County, Texas at approximately 30.8449370° North Latitude and approximately -97.6519572° West Longitude. This location lies within the designated Edwards Aquifer Recharge Zone. Therefore, future intended development of the site must conform to criteria in accordance with the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program Rules in accordance with Title 30 of the Texas Administrative Code, Section 213 (30 TAC§ 213).

EXPLANATION OF ASSESSMENT

This assessment follows general guidelines contained in Texas Commission on Environmental Quality (TCEQ) "*Instruction for Geologist for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones"* (TCEQ Guidance 0585). The site is located on an area of the recharge zone that may contain karst features formed by selective solutioning of limestone minerals by water. Karst features may be expressed as surface features but more commonly tend to persist with depth. This assessment documents the presence or absence of site conditions that were present at the time the site visit that was performed on 01/21/2022-01/27/2022. The site visit consisted of a walk-through survey that consisted of a non-intrusive visual observation or survey of readily accessible, easily visible surface property conditions that were present on the subject property at the time of the site visit. Intrusive subsurface testing such as excavation, cave mapping, infiltrometer test, geophysical studies or tracer studies are not required for the geologic assessment of any feature in accordance with this practice.

A sensitive geologic or manmade feature, for the purpose of this practice is a feature on the recharge zone or transition zone of the Edwards Aquifer with a superficial appearance that suggest a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer and that has the apparent potential for rapid infiltration into the subsurface.

PHYSICAL DESCRIPTION OF SITE

The majority of the subject site is currently undeveloped rangeland utilized for livestock with multiple residences.

SURFACE DRAINAGE

After reviewing the project site topographic survey, storm water runoff appears to flow generally toward the East / Northeast.

SOIL DESCRIPTION

The site soil is composed of:

Georgetown stony clay loam, 1 to 3 percent slopes (GsB), Hydrologic Group D

The Georgetown series consists of moderately deep, well drained, very slowly permeable soils that have formed over indurated limestone of Cretaceous age. These soils occur on nearly level to very gently sloping dissected plateaus. Slope ranges from 0 to 3 percent. Mean annual air temperature is about 19 degrees C (66 degrees F), and mean annual precipitation is about 864 mm (34 in). Well drained. Runoff is very high. Permeability is very slow.

Eckrant-Rock outcrop complex, rolling (ErE), Hydrologic Group D

The Eckrant series consists of soils that are very shallow and shallow to indurated limestone bedrock and interbedded cryptocrystalline quartz, chert, marl, and chalk. These well drained soils formed in residuum derived from limestone. These nearly level to very steep soils are on summits, shoulders, and backslopes of ridges on dissected plateaus. Slope ranges from 1 to 60 percent. Mean annual air temperature is about 20 degrees C (68 degrees F), and the mean annual precipitation is about 668 mm (26 in). Well drained. Permeability is moderately slow. Runoff is very low on 1 to 3 percent slopes, low on 3 to 5 percent slopes, medium on 5 to 20 percent slopes, and high on 20 to 60 percent slopes.

Eckrant extremely stony clay, 0 to 3 percent slopes (EeB), Hydrologic Group D

The Eckrant series consists of soils that are very shallow and shallow to indurated limestone bedrock and interbedded cryptocrystalline quartz, chert, marl, and chalk. These well drained soils formed in residuum derived from limestone. These nearly level to very steep soils are on summits, shoulders, and backslopes of ridges on dissected plateaus. Slope ranges from 1 to 60 percent. Mean annual air temperature is about 20 degrees C (68 degrees F), and the mean annual precipitation is about 668 mm (26 in). Well drained. Permeability is moderately slow. Runoff is very low on 1 to 3 percent slopes, low on 3 to 5 percent slopes, medium on 5 to 20 percent slopes, and high on 20 to 60 percent slopes.

Denton silty clay, 1 to 3 percent slopes (DnB), Hydrologic Group D

The Denton series consist of deep, well drained, slowly permeable soils that formed in clayey materials over residuum weathered from limestone bedrock. These nearly level or gently sloping soils are on uplands and have slopes ranging from 0 to 5 percent. Well drained; medium surface runoff; slow permeability.

Doss silty clay, moist, 1 to 5 percent slopes (DoC), Hydrologic Group D

The Doss series consists of shallow to weakly cemented limestone, well drained, moderately slow permeable soils that formed in calcareous loamy and clayey residuum derived from marls and limestone. These very gently to moderately sloping soils occur on hill slopes on dissected plateaus. Slope ranges from 1 to 8 percent. Mean annual precipitation is about 762 mm (30 in), and mean annual air temperature is about 18.9 degrees C (66 degrees F). Well drained. Permeability is moderately slow. Runoff is medium on 1 to 5 percent slopes and high on 5 to 8 percent slopes.

Georgetown clay loam, 0 to 2 percent slopes (GeB), Hydrologic Group D

The Georgetown series consists of moderately deep, well drained, very slowly permeable soils that have formed over indurated limestone of Cretaceous age. These soils occur on nearly level to very gently sloping dissected plateaus. Slope ranges from 0 to 3 percent. Mean annual air temperature is about 19 degrees C (66 degrees F), and mean annual precipitation is about 864 mm (34 in). Well drained. Runoff is very high. Permeability is very slow.

GEOLOGY

The site is located on the:

Edwards Limestone (Ked)

The Edwards Limestone consist of limestone, dolomite, and chert; limestone aphanitic to fine grained, massive to thin bedded, hard, brittle, in part rudistid biostromes, much miliolid biosparite; dolomite fine to very fine grained, porous, medium gray to grayish brown; chert, nodules and plates common, varies in amount from bed to bed, some intervals free of chert, mostly white to light gray; in zone of weathering considerably recrystallized, "honeycombed," and cavernous forming an aquifer; forms flat areas and plateaus bordered by scarps; thickness 60-350 feet, thins northward.

Comanche Peak Limestone (Kc)

The Comanche Peak Limestone consist of fine to very fine grained, fairly hard, nodular, light gray, weathers white, extensively burrowed, burrow fillings slightly coarser and darker, typically crops out in scarp face beneath Edwards Limestone; thickness up to 80 feet, feathers out southward near Williamson-Travis County line.

STRUCTURAL TREND and FEATURES:

The subject site is located on the Edwards Plateau within the Balcones / Ouachita structural province in central Texas. The Balcones / Ouachita structural province is an arcuate band of mostly down-to–the-coast normal faults that sub-parallels the Gulf of Mexico. In Williamson County, the regional structural trend of the Balcones / Ouachita province is generally southwest to northeast.

(Source: "*Lineament Analysis and Inference of Geologic Structure-Examples from the Balcones/Ouachita Trend of Texas."* Curan, Woodfruff, Jr, and Thompson, 1982)

The site is located in the vicinity of mapped regional faulting. No surface expressions of local structural features were observed during this assessment.

SITE SPECIFIC GEOLOGIC FEATURE DESCRIPTIONS
Identified 01/21/2022-01/27/2022

To the extent that surface property features were readily accessible and observable at the time the site was evaluated on 01/21/2022-01/27/2022 no geologic features were identified on the subject tract of land that has observed potential to affect recharge to the Edwards Aquifer except for the following:

W-10 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

W-11 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

W-12 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

ST-13 MB: **Manmade Feature - Stock Tank:** This feature is a stock tank used for agricultural purposes. The tank is estimated to be approximately 175 ft. x 167 ft. and approximately 5 ft. deep at the deepest location. The tank appeared to be clay lined as it was holding water at the time of the site investigation. No seepage was observed. Therefore, to the extent that this feature was observed, this feature does not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature.

W-14 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

W-15 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

W-16 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this

feature is not identified as a sensitive feature at this time.

ST-17 MB: **Manmade Feature - Stock Tank:** This feature is a stock tank used for agricultural purposes. The tank is estimated to be approximately 970 ft. x 195 ft. and approximately 6 - 8 ft. deep. The tank appeared to be clay lined as it was holding water at the time of the site investigation. No seepage was observed at the toe of the earthen impoundment. Therefore, to the extent that this feature was observed, this feature does not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature.

F-18 O: **Other Natural Bedrock Feature - Surface Out Crop:** This feature appears to be a localized surface area of enhanced solutioning associated with fractured slabs or blocks of limestone in the weathering profile. Dissolution of limestone in connection with this feature appears to have been controlled by localized bedding and shallow fracturing of exposed limestone bedrock located in a zone of apparent Epikarst. Epikarst is used herein to identify the zone of weathering at the upper surface of a limestone that includes the solutionally modified (karren) bedrock surface and associated regolith. The extent of weathering and dissolution within the Epikarst will diminish with depth and, when probed with a rod, this feature terminates in apparently consolidated rock.

Conditions observed in connection with this feature are not believed to persist in the subsurface at depth and do not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

ST-19 MB: **Manmade Feature - Stock Tank:** This feature is a stock tank used for agricultural purposes. The tank is estimated to be approximately 170 ft. x 118 ft. and approximately 7-9 ft. deep. The tank appeared to be clay lined as it was holding water at the time of the site investigation. No seepage was observed at the toe of the earthen dam. Therefore, to the extent that this feature was observed, this feature does not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature.

F-20 MB: **Manmade Feature - Quarry:** This feature is an apparent quarry area possibly utilized in the past for homestead building materials. The quarry area is estimated to be approximately 25 ft. x 6 ft. and 2 ft. deep. This feature does not appear to have a potential for hydraulic interconnectedness between the surface and the Edward Aquifer. There, this feature is not identified as a sensitive feature.

F-21 MB: **Manmade Feature - Borrow Pit:** The feature appears to be an abandoned borrow pit. The pit is estimated to be approximately 30 ft. x 30 ft. and approximately 4 ft. deep. The bottom of the pit was dry. To the extent that this feature was observed at the time of the assessment, this feature does not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature.

S-22 O: **Other Natural Bedrock Feature - Streambed**: This feature is a natural drainage way designated as an Intermittent Stream (Pecan Springs Branch) by the USGS

National Hydrography Dataset (NHD). In accordance with TCEQ Edwards Aquifer Protection Program Guidance, Streambeds, including dry drainages, are significant because runoff is focused to them. Not only are features in streambeds and natural drainage ways likely to receive large volumes of recharge, but they are likely to be part of hydrologically integrated flow paths because past flow has preferentially enlarged and maintained conduits. Although this feature is not identified as sensitive due to no indication of sensitive / recharge features (swallets or swallow holes) observed within the streambed at the time the site was evaluated, features in streambeds can be obscured by transported soil or gravel so diligence with protective measures during future construction activities in the area is strongly recommended.

F-23 CD: **Closed Depression:** This feature appears to be a natural, soil floored topographic depression. Closed Depressions are immature (incipient) karst features that are associated with surficial weathering of limestone or the weathered zone at the soil/bedrock interface. This Closed Depressions, as observed at the time of the assessment, is located in a zone of apparent Epikarst. Epikarst is used herein to identify the zone of weathering at the upper surface of a limestone that includes the solutionally modified (karren) bedrock surface and the overlying regolith. The extent of weathering and dissolution within the Epikarst will diminish with depth and when probed with a rod, the soil floor was underlain by apparently consolidated rock.

Surface conditions observed in connection with this feature are not believed to persist in the subsurface at depth and do not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as sensitive feature at this time.

F-24 SC: **Solution Cavity:** This feature appears to be a localized area of enhanced solutioning associated with weathering of limestone in the weathered zone near the soil/bedrock interface. This solution cavity, as observed at the time of this assessment, was approximately 3ft in diameter, by 1.5ft deep and located in a zone of apparent Epikarst. Epikarst is used herein to identify the zone of weathering at the upper surface of a limestone that includes the solutionally modified (karren) bedrock surface and the overlying regolith. The extent of weathering and dissolution within the Epikarst will diminish with depth and when probed with a rod, this feature terminated in apparently consolidated rock.

Surface conditions observed in connection with this feature are not believed to persist in the subsurface at depth and do not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as sensitive feature at this time.

F-25 CD: **Non-Karst Closed Depression:** This feature appears to be a natural, soil floored topographic depression. Non-karst closed depressions are not formed by karst processes and are not bedrock floored. This Closed Depression, as observed at the time of the assessment, is relatively shallow, soil floored with evidence of activity around opening indicative of an animal burrow.

Surface conditions observed in connection with this feature are not believed to persist in the subsurface at depth and do not appear to have a potential for

hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as sensitive feature at this time.

F-26 SF: **Solution Enlarged Fracture:** This feature appears to be an elongated, partially collapsed solution enlarged fracture feature in a localized area of enhanced solutioning associated with weathering of limestone in the weathered zone exposed at the surface. This solution feature, as observed at the time of this assessment, is located in a zone of apparent Epikarst. Epikarst is used herein to identify the zone of weathering at the upper surface of a limestone that includes the solutionally modified (karren) bedrock surface and the overlying regolith. The apparent trend of the feature is approximately 66° NNE. Dimensions of the feature measured approximately 9 ft. by 5 ft. but visual depth measurements were not possible due to overlying rock obstructing access. However, probing the feature with a metal rod encountered a mix of apparently consolidated rock bottom and unconsolidated collapse material to a depth of approximately 2-3 ft.

Additional investigation was done by removing the overlying rock / collapse material by hand. The extent of weathering and dissolution within the Epikarst appeared to diminish with depth and terminated in apparently consolidated rock at a depth of approximately 3-4 ft. Conditions observed in connection with this feature are not believed to persist in the subsurface and do not appear to have the potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, based on the limited additional investigation, this feature is not identified as a sensitive feature at this time.

C-27 C: **Cave:** This feature is a cave identified in accordance with *TCEQ-0585 Instructions to Geologist,* as a natural underground void (space) formed by the dissolution of limestone that is large enough for an average-sized person to enter. The surface expression of the feature measured approximately 35 ft. by 29 ft. and the entrance measured approximately 6.5 ft. by 3 ft. with an approximate depth of 10ft. The cave has flowing water and appears to be the result of enhanced solutioning along a fracture complex that trends 115 (degrees).

Based on conditions observed during the site visit, this feature is identified as a sensitive feature and it is recommended that a Phase II Karst Survey (KS) be conducted to evaluate the structural development, subgrade extent, aquifer point recharge capability and habitat potential for endangered karst invertebrates at this feature.

W-28 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

F-29 CD: **Closed Depression:** This feature appears to be a natural, soil floored topographic depression. Closed Depressions are immature (incipient) karst features that are associated with surficial weathering of limestone or the weathered zone at the soil/bedrock interface. This Closed Depressions, as observed at the time of the assessment, is located in a zone of apparent Epikarst. Epikarst is used herein to

identify the zone of weathering at the upper surface of a limestone that includes the solutionally modified (karren) bedrock surface and the overlying regolith. The extent of weathering and dissolution within the Epikarst will diminish with depth and when probed with a rod, the soil floor was underlain by apparently consolidated rock.

Surface conditions observed in connection with this feature are not believed to persist in the subsurface at depth and do not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as sensitive feature at this time.

W-30 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

F-31 CD: **Closed Depression:** This feature appears to be a natural, soil floored topographic depression. Closed Depressions are immature (incipient) karst features that are associated with surficial weathering of limestone or the weathered zone at the soil/bedrock interface. This Closed Depressions, as observed at the time of the assessment, is located in a zone of apparent Epikarst. Epikarst is used herein to identify the zone of weathering at the upper surface of a limestone that includes the solutionally modified (karren) bedrock surface and the overlying regolith. The extent of weathering and dissolution within the Epikarst will diminish with depth and when probed with a rod, the soil floor was underlain by apparently consolidated rock.

Surface conditions observed in connection with this feature are not believed to persist in the subsurface at depth and do not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as sensitive feature at this time.

F-32 O: **Other Natural Bedrock Feature - Surface Out Crop:** This feature appears to be a localized surface area of enhanced solutioning associated with fractured slabs or blocks of limestone in the weathering profile. Dissolution of limestone in connection with this feature appears to have been controlled by localized bedding and shallow fracturing of exposed limestone bedrock located in a zone of apparent Epikarst. Epikarst is used herein to identify the zone of weathering at the upper surface of a limestone that includes the solutionally modified (karren) bedrock surface and associated regolith. The extent of weathering and dissolution within the Epikarst will diminish with depth and, when probed with a rod, this feature terminates in apparently consolidated rock.

Conditions observed in connection with this feature are not believed to persist in the subsurface at depth and do not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

W-33 MB: **Manmade Feature - Water Well (Windmill):** Assuming that this water well was

properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

W-34 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

ST-35 MB: **Manmade Feature - Stock Tank:** This feature is a stock tank used for agricultural purposes. The tank is estimated to be approximately 120 ft. x 460 ft. and approximately 6 ft. deep. The tank appeared to be clay lined as it was holding water at the time of the site investigation. No seepage was observed at the toe of the earthen dam. Therefore, to the extent that this feature was observed, this feature does not appear to have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature.

W-36 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

W-37 MB: **Manmade Feature - Water Well:** Assuming that this water well was properly completed in accordance with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers 16 TAC § 76 (TOC § 1901.253 Completing Water Wells), this feature should not have a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer. Therefore, this feature is not identified as a sensitive feature at this time.

D-38 O: **Other Natural Bedrock Feature – Drainage Way**: This feature is a natural drainage way. In accordance with TCEQ Edwards Aquifer Protection Program Guidance, Streambeds, including dry drainages, are significant because runoff is focused to them. Not only are features in streambeds and natural drainage ways likely to receive large volumes of recharge, but they are likely to be part of hydrologically integrated flow paths because past flow has preferentially enlarged and maintained conduits. Although this feature is not identified as sensitive due to no indication of sensitive / recharge features (swallets or swallow holes) observed within the drainage way at the time the site was evaluated, features in drainageways can be obscured by transported soil or gravel so diligence with protective measures during future construction activities in the area is strongly recommended.

D-39 O: **Other Natural Bedrock Feature – Drainage Way**: This feature is a natural drainage way. In accordance with TCEQ Edwards Aquifer Protection Program

Guidance, Streambeds, including dry drainages, are significant because runoff is focused to them. Not only are features in streambeds and natural drainage ways likely to receive large volumes of recharge, but they are likely to be part of hydrologically integrated flow paths because past flow has preferentially enlarged and maintained conduits. Although this feature is not identified as sensitive due to no indication of sensitive / recharge features (swallets or swallow holes) observed within the drainage way at the time the site was evaluated, features in drainageways can be obscured by transported soil or gravel so diligence with protective measures during future construction activities in the area is strongly recommended.

D-40 O: **Other Natural Bedrock Feature – Drainage Way**: This feature is a natural drainage way. In accordance with TCEQ Edwards Aquifer Protection Program Guidance, Streambeds, including dry drainages, are significant because runoff is focused to them. Not only are features in streambeds and natural drainage ways likely to receive large volumes of recharge, but they are likely to be part of hydrologically integrated flow paths because past flow has preferentially enlarged and maintained conduits. Although this feature is not identified as sensitive due to no indication of sensitive / recharge features (swallets or swallow holes) observed within the drainage way at the time the site was evaluated, features in drainageways can be obscured by transported soil or gravel so diligence with protective measures during future construction activities in the area is strongly recommended.

D-41 O: **Other Natural Bedrock Feature – Drainage Way**: This feature is a natural drainage way. In accordance with TCEQ Edwards Aquifer Protection Program Guidance, Streambeds, including dry drainages, are significant because runoff is focused to them. Not only are features in streambeds and natural drainage ways likely to receive large volumes of recharge, but they are likely to be part of hydrologically integrated flow paths because past flow has preferentially enlarged and maintained conduits. Although this feature is not identified as sensitive due to no indication of sensitive / recharge features (swallets or swallow holes) observed within the drainage way at the time the site was evaluated, features in drainageways can be obscured by transported soil or gravel so diligence with protective measures during future construction activities in the area is strongly recommended.

OBSERVATIONS

To the extent that surface property features were readily accessible and observable at the time the site was evaluated on 01/21/2022-01/27/2022 no sensitive features were identified on the subject tract of land that has observed potential to affect recharge to the Edwards Aquifer except for the following:

C-27 C: **Cave:** This feature is a cave identified in accordance with *TCEQ-0585 Instructions to Geologist,* as a natural underground void (space) formed by the dissolution of limestone that is large enough for an average-sized person to enter. The surface expression of the feature measured approximately 35 ft. by 29 ft. and the entrance measured approximately 6.5 ft. by 3 ft. with an approximate depth of 10ft. The cave has flowing water and appears to be the result of enhanced solutioning along a

fracture complex that trends 115 (degrees).

Based on conditions observed during the site visit, this feature is identified as a sensitive feature and it is recommended that a Phase II Karst Survey (KS) be conducted to evaluate the structural development, subgrade extent, aquifer point recharge capability and habitat potential for endangered karst invertebrates at this feature.

CONCLUDING STATEMENTS

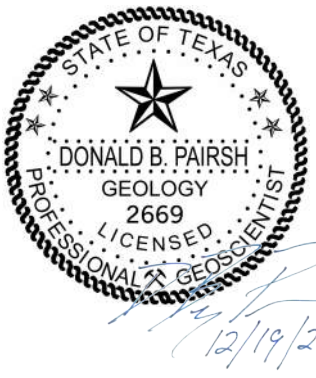
The Client understands that no non-intrusive visual observation or survey can wholly eliminate uncertainty regarding the possible presence of geologic conditions in connection with the subject property. Due to the inherent limits in connection with the agreed Scope of Work, this report does not address uncertainty about site conditions across those portions of the subject property not specifically addressed in this report.

Development of the site is planned. Additional modification of site surface conditions can be expected as construction proceeds. Unsuspected solution enlarged fractures, caves and cavities may be discovered during construction operations.

This assessment does not address the possible presence of subsurface conditions that may be exposed during construction operations. Should solution features or conditions be exposed during construction operations that indicate a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer, operations in the vicinity of the feature should be halted and the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program should be contacted immediately in accordance with 30 TAC §213.5(f)(2).

Respectfully,

D Bryan Pairsh, P.G.
Project Geologist
Capitol Environmental, Inc
TBPG Firm Registration #50389
Austin, Texas



DISCLAIMER:

Under standard geologic assessment practice, this assessment is an assessment of surface property conditions that were readily accessible and easily visible at the time of the assessment.

Services performed under this contract were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. Under standard geologic assessment practice, information developed in this report represents an assessment of environmental conditions observed as present or absent on portions of the surface of the subject property at the time of the assessment. The field observations, measurements and research reported in this report are considered sufficient in detail and scope to form a contained assessment of discrete portions of the subject property. Capitol warrants that the findings and conclusions contained in this report have been prepared in accordance with generally accepted methods normal for the subject site described in this report.

Not every property will warrant the same level of assessment. Consistent with good commercial and customary practice, the appropriate level of assessment will be guided by the type of property subject to assessment, the expertise and risk tolerance of the Client and information developed in the course of the inquiry. The Assessment has been developed to provide the Client with information regarding apparent indications of the presence of absence of geologic conditions relating to the surface of the subject site. The Geologic Assessment report is necessarily limited to the conditions observed and to the information available at the time the work was performed. Due to the limited nature of the work, there is a possibility that conditions may exist in connection with the subject site which could not be identified within the scope of this assessment practice, or which were not easily visible or not disclosed at the time the report was prepared.

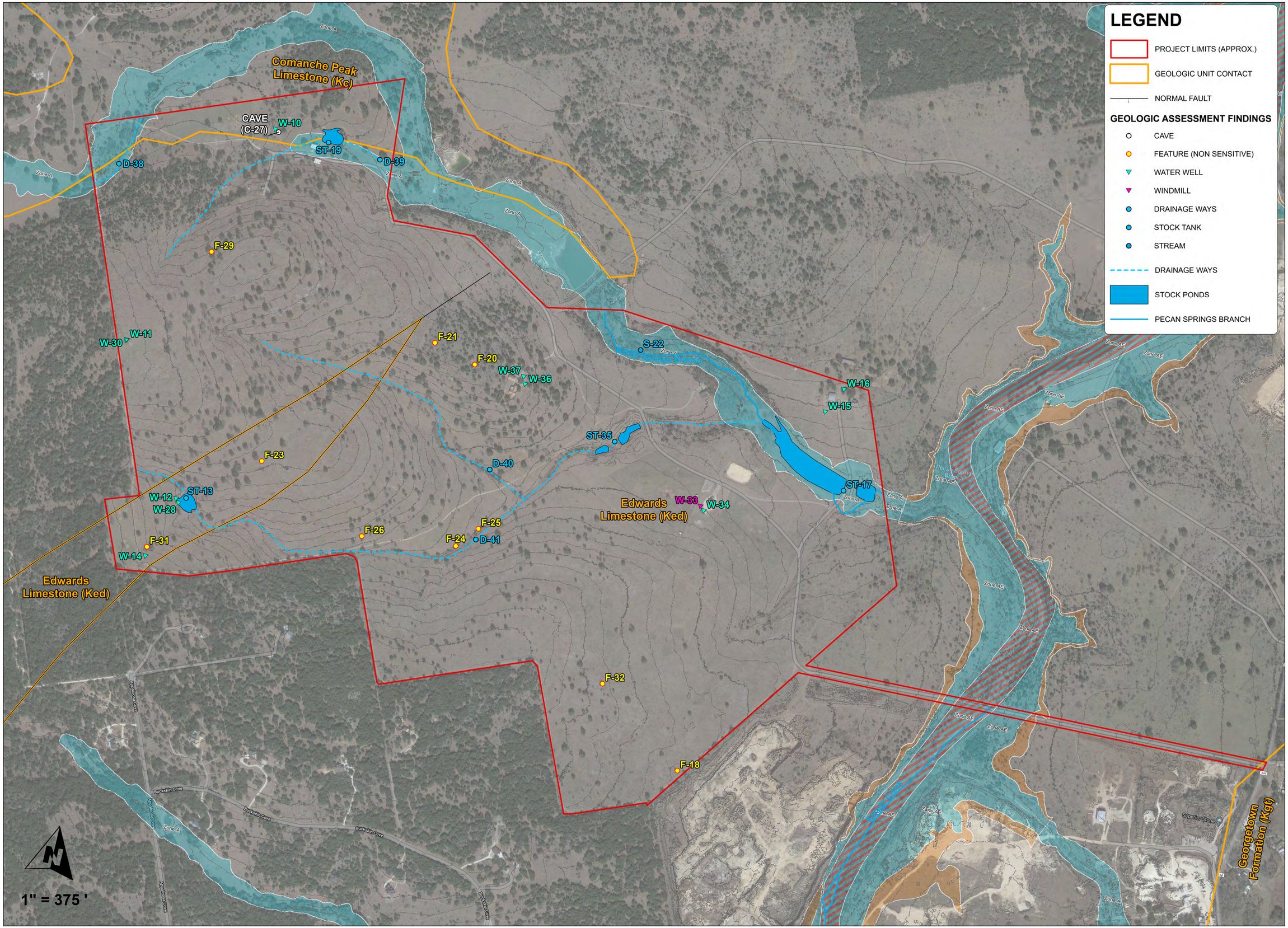
It is also possible that assessment methods employed at the time the report was prepared may be later superseded by more discrete assessment methods. The definition of a “sensitive geologic feature” and / or a “critical environmental feature” can also change statutorily over time. Capitol does not warrant the content or findings of this report in the event of changes in conditions in connection with the subject property; in the event of changes in assessment methods; or in the event of changes in statute that may apply to the subject property in the future.

In preparing this report, Capitol has relied on information derived from third party sources and personal interviews, as well as other investigative work. Except as set forth in this report, Capitol has made no independent investigation as to the accuracy or completeness of the information derived from third party sources.

This report does not address uncertainty about site conditions across those portions of the subject property not specifically assessed in this report. The Client understands that no surface assessment can wholly eliminate uncertainty regarding the possible presence of geologic conditions at depth in connection with the subject property. The Client should recognize that conditions elsewhere in the assessment area may differ from those at the study /sample locations, and that surface conditions described in the assessment practice herein may change at depth. This assessment should not be used as a basis for engineering design.

This report was prepared for the Client, to identify the presence or absence of geologic conditions on surface portions of the subject property. Any use of this report for other purposes or any use of information presented in this report by other parties other than the Client is the Client’s responsibility.

Attachment D – Site Geologic Map
&
Site Soil Site Map



ATLAS RANCH

GEOLOGIC SITE MAP

Prepared under the supervision of: D. Bryan Pairsh, P. G.

Date: 12/19/2022

TBPG Firm Registration #50389

CAPITOL ENVIRONMENTAL

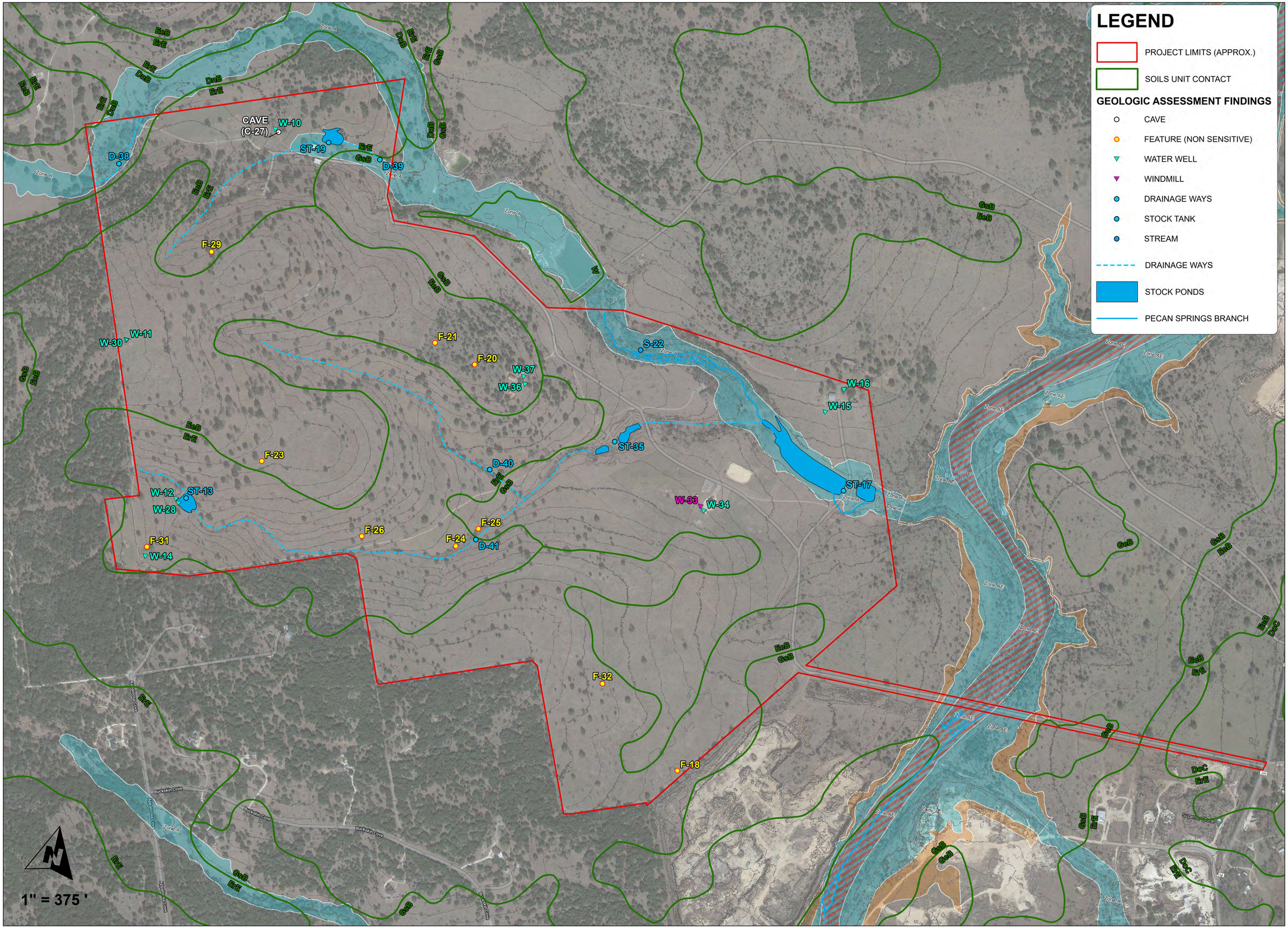
www.capitolenvironmental.com

512.535.4368

STATE OF TEXAS
DONALD B. PARISH
GEOLOGY
2669
LICENSED
PROFESSIONAL GEOSCIENTIST
12/19/22

Not For Construction or Building Purposes

Sheet No. 1 of 2



ATLAS RANCH

SOILS SITE MAP

Prepared under the supervision of: D. Bryan Pairsh, P. G.

Date: 12/19/2022

TBPG Firm Registration #50389

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512.535.4368

STATE OF TEXAS
DONALD B. PAIRSH
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PROFESSIONAL GEOLOGIST
12/19/22

Not For Construction or Building Purposes

Sheet No. 2 of 2

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:

Print Name of Customer/Agent: Nick Marino, P.E.

Date: 10/9/25

Signature of Customer/Agent:

Nik Mino

Project Information

1. Current Regulated Entity Name: Atlas Ranch
   Original Regulated Entity Name: Atlas Ranch
   Regulated Entity Number(s) (RN): 111613758
   Edwards Aquifer Protection Program ID Number(s): 11003384
   ☒ The applicant has not changed and the Customer Number (CN) is: 606063634
   ☐ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☒ **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.

3. A modification of a previously approved plan is requested for (check all that apply):
   - ☐ Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
   - ☒ Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
   - ☒ Development of land previously identified as undeveloped in the original water pollution abatement plan;
   - ☐ Physical modification of the approved organized sewage collection system;
   - ☐ Physical modification of the approved underground storage tank system;
   - ☐ Physical modification of the approved aboveground storage tank system.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	895.94	895.94
Type of Development	Single family residential	Single family residential
Number of Residential Lots	225	225
Impervious Cover (acres)	32.447	36.897
Impervious Cover (%	3.62	4.12
Permanent BMPs	Batch Detention Pond & VFS	Batch Detention Pond & VFS
Other	_____	_____

SCS Modification Summary	***Approved Project***	***Proposed Modification***
Linear Feet	_____	_____
Pipe Diameter	_____	_____
Other	_____	_____

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	_____	_____
Volume of ASTs	_____	_____
Other	_____	_____

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	_____	_____
Volume of USTs	_____	_____
Other	_____	_____

5. ☒ **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.

7. ☐ 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. ☒ 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.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 17, 2023

Mr. Matt Michelsen
Atlas Ranch Holdings
215 Bella Riva Dr.
Austin, Texas 78734

Re: Edwards Aquifer, Williamson County
NAME OF PROJECT: Atlas Ranch; Located at 601 County Road 344; Jarrell, 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. 11003384; Regulated Entity No. RN111613758

Dear Mr. Michelsen:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP application for the above-referenced project submitted to the Austin Regional Office by BGE, Inc. on behalf of Atlas Ranch Holdings on December 5, 2022. Final review of the WPAP was completed after additional material was received on February 1, 2023. As presented to the TCEQ, the Temporary Best Management Practices (BMPs) were selected, 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 264.72 acres. It will include earthwork and grading associated with site cleanup and preparation for future development. Ultimately, the site will be developed as a single-family residential development requiring additional EAPP approval. No new impervious cover will be added with this phase; the existing impervious cover is 9.58 acres (3.6 percent). No permanent BMP is proposed with this phase. No wastewater will be generated by this phase.

GEOLOGY

According to the Geologic Assessment included with the application, the site is characterized surficially by Edwards Limestone. Two sensitive geologic features exist on site, S-8 (Salado Creek) and S-9 (Salado Creek Tributary). Both features have setbacks shown in the application materials. The TCEQ site assessment conducted on February 7, 2023 revealed the site generally as described.

STANDARD CONDITIONS

1. 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.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.
3. 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.

Prior to Commencement of Construction:

4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the Austin 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 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.
5. 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.
6. 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.
7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin 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.
8. 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.

9. 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:

10. 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.
11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.
12. 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 Austin 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.
13. 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.
14. 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.
15. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
16. 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.
17. 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:

18. 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.

19. 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 Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
20. 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.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact James "Bo" Slone, P.G. of the Edwards Aquifer Protection Program of the Austin Region office at (512) 339-2929.

Sincerely,

Lillian Butler

Lillian Butler, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

LIB/jcs

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625

Cc: Mr. Nathan Kelly, P.E., BGE, Inc.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 24, 2025

Mr. Matt Michelsen
Atlas Ranch Holdings, LP
115 E. 5th St., Ste. 200
Austin, TX 78701

Re: Modification of an approved Water Pollution Abatement Plan (WPAP-MOD) and Approval of an Organized Sewage Collection System (SCS) Plan
Atlas Ranch Phase 1 Section 1; Located at 601 County Road 344; Jarrell, Williamson County, Texas
Edwards Aquifer Protection Program ID No. 11004203 (WPAP-MOD) and 11004204 (SCS); Regulated Entity No. RN111613758

Dear Mr. Michelsen:

The Texas Commission on Environmental Quality (TCEQ) has completed its review on the applications for the above-referenced project submitted to the Edwards Aquifer Protection Program (EAPP) by Gray Engineering, Inc. on behalf of the applicant, Atlas Ranch Holdings, LP, on October 29, 2024. Final review of the applications was completed after additional material was received on December 17, 2024, January 9, 2025, January 14, January 17, 2025, and January 21, 2025.

As presented to the TCEQ, the application was prepared in general compliance with the requirements of 30 Texas Administrative Codes (TAC) Chapter §213 and Chapter §217. The permanent best management practices (BMPs), engineering design report, technical specifications and final design plans were prepared by a Texas licensed professional engineer (PE). All construction plans and design information were sealed, signed, and dated by a Texas licensed PE. Therefore, the application for the construction of the proposed project and methods to protect the Edwards Aquifer are hereby **approved,** subject to applicable state rules and the conditions in this letter.

This approval expires two 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 officially requested. This approval or extension will expire, and no extension will be granted if more than 50 percent of the project has not been completed within ten years from the date of 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 in accordance with 30 TAC §50.139.

BACKGROUND

The Atlas Ranch WPAP was approved by letter dated February 17, 2023 (EAPP ID No. 11003384) and included clearing and grading for a 264.72-acre site. A 631.2-acre tract with 3.77 acres of existing impervious cover (IC) was added to the site after approval of the WPAP.

PROJECT DESCRIPTION

WPAP DESCRIPTION

The proposed residential project will have an area of approximately 895.94 acres. The modification will include the construction of 225 single-family residences with associated parking and drives, and a wastewater treatment plant. The IC will be increased from 6.53 acres to 32.45 acres (3.62 percent).

SCS DESCRIPTION

The proposed sewage collection system will provide disposal service for residential development. The system includes gravity lines and other appurtenance necessary for conveying wastewater to a treatment plant

The proposed SCS includes the lines listed in the table below:

Pipe Diameter (inches)	Linear Feet	Pipe Material	Specifications
8	6,542	PVC SDR 26	ASTM 3034
12	268	PVC SDR 26	ASTM 3034
8	200	PVC SDR 26	ASTM D2241
Total Linear Feet	7,010		

TREATMENT FACILITY

The system will be connected to a proposed Atlas Ranch wastewater line for conveyance to the Atlas Ranch Wastewater Treatment Plant for treatment and disposal. **The proposed system shall be connected for conveyance prior to use of the development.** The project will conform to all applicable codes, ordinances, and requirements of the City of Austin.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, a batch detention basin and an engineered vegetative filter strip, designed using the TCEQ technical guidance, *RG-348, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices,* will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 22,559 pounds of TSS generated from the 32.45 acres of IC (28.68 acres of IC within limits of construction). The approved permanent BMPs and measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The permanent BMPS shall be operational prior to occupancy or use of the proposed project. Inspection, maintenance, repair, and retrofit of the permanent BMPs shall be in accordance with the approved application.

GEOLOGY

According to the Geologic Assessment (GA) included with the application, the surficial unit of the site is the Edwards Limestone. Three sensitive geologic features exist on site, S-8 (Salado Creek), S-9 (Salado Creek Tributary), and C-127 (cave). Natural buffer setbacks are proposed for the sensitive features and are illustrated on the site plan. No portions of the proposed SCS or regulated activities, such as construction or soil disturbing activities, will take place within the natural buffers. The site assessment conducted on December 3, 2024, by TCEQ staff determined the site to be generally as described by the GA.

SPECIAL CONDITIONS

I. This modification is subject to all the special and standard conditions listed in the approval letter dated February 17, 2023 (EAPP ID No. 11003384).

STANDARD CONDITIONS

1. The plan holder (applicant) must comply with all provisions of 30 TAC Chapter §213 and technical specifications contained in the approved plan. The plan holder should also acquire and comply with additional and separate approvals, permits, registrations or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, Dam Safety, Underground Injection Control, Water Quality) as required based on the specifics of the plan.

2. In addition to the rules of the Commission, the plan holder must also comply with state and local ordinances and regulations providing for the protection of water quality as applicable.

Prior to Commencement of Construction:

3. Within 60 days of receiving written approval of an Edwards Aquifer protection plan, the plan holder must submit to the EAPP proof of recordation of notice in the county deed records, with the volume and page number(s) of the county record. A description of the property boundaries shall be included in the deed recordation in the county deed records. TCEQ form, Deed Recordation Affidavit (TCEQ-0625), may be used.

4. The plan holder of any approved Edwards Aquifer protection plan must notify the EAPP and obtain approval from the executive director prior to initiating any modification to the activities described in the referenced application following the date of the approval.

5. The plan holder must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the EAPP no later than 48 hours prior to commencement of the regulated activity. 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.

6. Temporary erosion and sedimentation (E&S) controls as described in the referenced application, 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. 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 or gravel. 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.

During Construction:

8. This approval does not authorize the installation of temporary or permanent aboveground storage tanks on this project that will have a total storage capacity of 500 gallons or more of static hydrocarbons or hazardous substances without prior approval of an Aboveground Storage Tank facility application.

9. If any sensitive feature is encountered during construction, replacement, or rehabilitation on this project, all regulated activities must be **immediately** suspended near it and notification must be made to TCEQ EAPP staff. Temporary BMPs must be installed and maintained to protect the feature from pollution and contamination. 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.

10. All water wells, including injection, dewatering, and monitoring wells shall be identified in the geologic assessment and must be in compliance with the requirements of the Texas Department of Licensing and Regulation 16 TAC Chapter §76 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. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge must be filtered through appropriately selected BMPs.

13. 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.

14. 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:

15. Owners of permanent BMPs and temporary measures must ensure that the BMPs and measures are constructed and function as designed. A Texas licensed PE **must certify** in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the EAPP within 30 days of site completion.

16. 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 or the ownership of the property is transferred

to the entity. A copy of the transfer of responsibility must be filed with the executive director through the EAPP within 30 days of the transfer. TCEQ form, Change in Responsibility for Maintenance on Permanent BMPs and Measures (TCEQ-10263), may be used.

17. No part of the organized sewage collection system may be used as a sewage holding tank, as defined in 30 TAC §213.3 (excluding lift stations), over the Edwards Aquifer recharge zone.

18. A Texas licensed PE **must certify** in writing that the new sewage collection system (including force mains) has passed all required testing. The certification shall be submitted to the EAPP within 30 days of test completion and prior to the new sewage collection system being put into service.

19. A Texas licensed PE **must certify** subsequent testing required every five years of the existing sewage collection system after being put into use to determine types and locations of structural damage and defects such as offsets, open joints, or cracked or crushed lines that would allow exfiltration to occur. The test results must be retained by the plan holder for five years and made available to the executive director upon request.

The holder of the approved Edwards Aquifer protection plan is responsible for compliance with Chapter §213 and any condition of the approved plan through all phases of plan implementation. Failure to comply with any condition within this approval letter is a violation of Chapter §213 and is subject to administrative rule or orders and penalties as provided under §213.10 of this title (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. Upon legal transfer of this property, the new owner is required to comply with all terms of the approved Edwards Aquifer protection plan.

This action is taken as delegated by the executive director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Mr. Colin Gearing of the Edwards Aquifer Protection Program at 512-239-7015 or the regional office at 512-339-2929.

Sincerely,

Monica Reyes

Monica Reyes, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

MR/cmg

cc: Mr. Nick Marino, P.E., Gray Engineering, Inc.

Deed Recordation Affidavit
Edwards Aquifer Protection Plan

THE STATE OF TEXAS §

County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ who, being duly sworn by me, deposes and says:

(1) That my name is _____and that I own the real property described below.

(2) That said real property is subject to an EDWARDS AQUIFER PROTECTION PLAN which was required under the 30 Texas Administrative Code (TAC) Chapter 213.

(3) That the EDWARDS AQUIFER PROTECTION PLAN for said real property was approved by the Texas Commission on Environmental Quality (TCEQ) on _____.

A copy of the letter of approval from the TCEQ is attached to this affidavit as Exhibit A and is incorporated herein by reference.

(4) The said real property is located in _____ County, Texas, and the legal description of the property is as follows:

_____
LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this __ day of _____, ____.

_____
NOTARY PUBLIC

THE STATE OF _____ §

County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ known 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 __ day of _____, _____.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____

Attachment B – Narrative of Proposed Modification

Atlas Ranch Phase 1, Section 1 lies on an 895.94 acre tract of land in Williamson County, Texas. The site is located approximately 0.88 miles northwest of the intersection of CR-305 and CR-344.

A WPAP for the cleanup, remediation, and excavation and embankment of 264.72 acres in preparation for future development has been submitted. It was approved on February 17, 2023 under the Edwards Aquifer Protection Program ID No. 11003384 and Regulated Entity No. RN111613758. There were no permanent BMPs or proposed wastewater with this previous WPAP. The existing impervious cover was 9.58 acres (3.6 percent) with no new impervious cover added.

A WPAP MOD for the Atlas Ranch Phase 1, Section 1 development was approved on January 24, 2025 under the Edwards Aquifer Protection Program ID No. 11004203 and Regulated Entity No. RN111613758. This modification included two permanent BMPs, a batch detention pond and VFS, in association with activities such as grading, utility installation, road construction, wastewater treatment plant construction, and single-family home construction for 225 lots. The impervious cover after this modification was 32.447 acres, or 3.62 percent. Modifications to the plan are described as follows.

This modification proposes the addition of a hike and bike trail through the development which primarily consists of a 10’ wide decomposed granite surface, with certain sections being concrete pavement for runoff stability. This trail section will total 4.45 acres of impervious cover including the DG. Total post development impervious cover will be 36.897 acres, or 4.12 percent. Proposed permanent BMPs include vegetated filter strips, which is discussed further in the *Permanent Stormwater Section*.

Attachment C – Current Site Plan of the Approved Project

The approved Overall Site Plan for the previously approved WPAP Application (EAPP No. 11003384) is attached on the following page.

MATCHLINE TO SHEET 8

SALADO CREEK
FEMA FIS 500-YR FLOODPLAIN

STABILIZED CONSTRUCTION ENTRANCE AND DRIVEWAY TO WWTP SITE

120 SY OF RIP-RAP

20 SY OF RIP-RAP

24 POND

25 WWTF

36 LF OF 24" RCP TEMPORARY ACCESS ROAD - LOW FLOW CULVERT

50' TCEQ WPAP BOUNDARY

270 LF OF ROCK BERM

10' SALADO CREEK OHWM

FEMA ZONE AE 100-YR FLOODPLAIN

FEMA ZONE AE 500-YR FLOODPLAIN

126 LF OF ROCK BERM

138 SY OF RIP-RAP

108 LF OF ROCK BERM

WELL #2

OPEN SPACE

SHADYSIDE DRIVE

MOUNT OLIVER SPUR

ALLEGHENY DRIVE

VARGO KNOLL

KNOXVILLE GLEN DRIVE

FAIRYWOOD PLACE

CECIL CIRCLE

CR 344

SCALE: 1" = 100'
GRAPHIC SCALE IN FEET
0 50' 100' 200'

LEGEND

- PROPERTY BOUNDARY
- PHASE BOUNDARY
- 950 EXISTING CONTOUR
- 950 EXISTING CONTOUR
- 950 PROPOSED CONTOUR
- 950 PROPOSED CONTOUR
- 500YR 500YR — 500-YR FLOODPLAIN PER FEMA PANEL 48491C0125F DATED DECEMBER 20, 2019
- TCEQ WPAP BOUNDARY
- SALADO CREEK FEMA FIS 500-YR FLOODPLAIN PER STUDY BY BGE, INC., OCTOBER 2023
- LOC LOC — LIMITS OF CONSTRUCTION
- LOC–SF LOC–SF — LIMITS OF CONSTRUCTION & SILT FENCE
- SF SF — SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- CONTRACTOR STAGING AREA
- CONCRETE WASHOUT PIT
- INLET PROTECTION
- TEMPORARY ROCK BERM

8834 N. Capital of Texas Hwy.
Suite 140
Austin, Texas 78759
(512)452-0371
FAX(512)454-9933
TBPELS FIRM #2946

GRAY ENGINEERING

NO.	BY	DATE	REVISION DESCRIPTION

EROSION CONTROL PLAN (SHEET 1 OF 2)

ATLAS RANCH
PHASE 1 SECTION 1
WILLIAMSON
COUNTY, TX

PROJECT NO: 11727

DESIGNED BY: KEL

DRAWN BY: KEL

CHECKED BY: RR

Nick Marino
STATE OF TEXAS
NICHOLAS A. MARINO
146339
LICENSED PROFESSIONAL ENGINEER
8-23-2024

H:\PROJECTS\11723 - ATLAS RANCH HOLDINGS\11727 ATLAS RANCH\CAD\PH1SEC1\SHEETS\11727-C-EROS.DWG DATE: 8/23/2024 2:23:25 PM BY: NMARINO

8834 N. Capital of Texas Hwy.
Suite 140
Austin, Texas 78759
(512)452-0371
FAX(512)454-9933
TBPELS FIRM #2946

GRAY ENGINEERING

NO.	BY	DATE	REVISION DESCRIPTION

EROSION CONTROL PLAN (SHEET 2 OF 2)

ATLAS RANCH PHASE 1 SECTION 1 WILLIAMSON COUNTY, TX

PROJECT NO: 11727

DESIGNED BY: KEL

DRAWN BY: KEL

CHECKED BY: RR

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:

Print Name of Customer/Agent: Nick Marino, P.E.

Date: 10/9/25

Signature of Customer/Agent:

Regulated Entity Name: Atlas Ranch

Regulated Entity Information

1. The type of project is:

   ☒ Residential: Number of Lots:225
   ☐ Residential: Number of Living Unit Equivalents:_____
   ☐ Commercial
   ☐ Industrial
   ☐ Other:_____

2. Total site acreage (size of property):895.94

3. Estimated projected population:788

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

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	857,696.40	÷ 43,560 =	19.69
Parking	0	÷ 43,560 =	0
Other paved surfaces	781,030.80	÷ 43,560 =	17.93
Total Impervious Cover	1,638,727.20	÷ 43,560 =	36.897

Total Impervious Cover 36.897 **÷ Total Acreage** 895.94 **X 100 =** 4.12**% Impervious Cover**

5. ☒ **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. ☒ 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.

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 ÷ 43,560 Ft^2/Acre = _____ acres.

10. Length of pavement area: _____ feet.

    Width of pavement area: _____ feet.
    L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
    Pavement area _____ acres ÷ 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.

Stormwater to be generated by the Proposed Project

13. ☒ **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.

Wastewater to be generated by the Proposed Project

14. The character and volume of wastewater is shown below:

100% Domestic	_____Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day _____	

15. Wastewater 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 12-06-2024.
- ☐ 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.

☐ The sewage collection system will convey the wastewater to the Atlas Ranch (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

16. ☒ All private service laterals will be inspected as required in 30 TAC §213.5.

Site Plan Requirements

Items 17 – 28 must be included on the Site Plan.

17. ☒ The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = 100'.

18. 100-year floodplain boundaries:

☒ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
☐ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): _____

19. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, open space, etc. are shown on the plan.

☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, open space, etc. are shown on the site plan.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

☒ There are 2 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

☐ 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.

☐ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:

☒ 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 justification for an exception to a portion of the Geologic Assessment is attached.

22. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

23. ☒ Areas of soil disturbance and areas which will not be disturbed.

24. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

25. ☒ Locations where soil stabilization practices are expected to occur.

26. ☒ Surface waters (including wetlands).

☐ N/A

27. ☒ Locations where stormwater discharges to surface water or sensitive features are to occur.

☐ There will be no discharges to surface water or sensitive features.

28. ☒ Legal boundaries of the site are shown.

Administrative Information

29. ☒ 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. ☒ 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 Surface Water Quality

Many factors have the potential of affecting surface water quality during construction, including oil, grease, gas, transmission fluids, and/or other vehicular fluids, as well as shifts in sediment that will occur during excavation and fill operations. Upon completion of construction, normal traffic on the site could be responsible for many similar pollutants.

Attachment B – Volume and Character of Stormwater

The majority of runoff from Phase 1, Section 1 will drain to on-site BMPs where it will be treated. The total drainage area accounted for by BMPs is 52.08 acres of runoff with 30.56 acres of impervious cover. Resultant runoff is conveyed to one (1) proposed batch detention pond via proposed storm system improvements and vegetative filter strips. Small portions of runoff will bypass treatment and discharge to tributaries of Salado Creek. BMPs shown in the construction plans have been adequately sized to account for the untreated flows.

The overall proposed drainage area map and water quality calculations are shown in the construction plans included with this submittal. This project lies within the Salado Creek Detention Exempt Stream Reach as defined by Williamson County and drains directly to Salado Creek.

Attachment C – Suitability Letter from Authorized Agent

Not applicable to this project.

Attachment D – Exception to the Required Geologic Assessment

Not applicable to this project.

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: Nick Marino, P.E.

Date: 10/9/25

Signature of Customer/Agent:

Nk Mino

Regulated Entity Name: Atlas Ranch

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.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

   ☐ The following fuels and/or hazardous substances will be stored on the site: _____

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

   ☐ 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.

☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☒ Fuels and hazardous substances will not be stored on the site.

2. ☒ **Attachment A - Spill Response Actions**. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☐ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☒ **Attachment B - Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

5. ☒ **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.

☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

☒ 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. ☒ 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: Salado Creek

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. ☒ **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 pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

☐ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

☐ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

☐ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

☐ **Attachment E - Request to Temporarily Seal a Feature**. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ☒ **Attachment F - Structural Practices**. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. ☒ **Attachment G - Drainage Area Map**. A drainage area map supporting the following requirements is attached:

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

☒ 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.

☒ N/A

12. ☒ **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. ☒ 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. ☒ 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. ☒ 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. ☒ **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. ☒ 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. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. ☒ 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. ☒ 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 Action

No spills of hydrocarbons or hazardous substances are expected. However, in the event that such an incidence does occur, the contractor should carefully follow the following TCEQ guidelines:

Cleanup:

1. 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.

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:
    - Contain the spread of the spill.
    - Recover spilled materials.
    - Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills:

Semi-significant spills can still 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, using the following practices:

1. 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 materials to prevent contaminating runoff.

Significant/Hazardous Spills

For highly toxic materials, the Reportable Quantity (RQ) > 25 gallons. For petroleum/hydrocarbon liquids, RQ > 250 gallons (on land) or any amount which creates a "sheen" on water. Only certified Haz-Mat teams will be responsible for handling the material at the site.

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. Additionally, in the event of a hazardous material spill, local Williamson County police, fire, and potentially EMS should be contacted in order to initiate the hazardous material response team.
2. For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110, 191, 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 of which on copy is to be kept on-site in the report binder and one copy is to be provided to the TCEQ.
4. The services of a spill contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staff 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's Office, Fire Department, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at:

http://www.tceq.state.tx.us/response/spills.html

Attachment B – Potential Sources of Contamination

No particular activity or process during construction of the project is anticipated to present a significant risk of being a potential source of contamination. However, during regular construction operations, several common and minor risks of contamination are anticipated. Should any unforeseen mishaps occur during construction, the contractor shall follow the guidelines set forth in "Attachment A – Spill Response Action".

Potential sources of sediment to stormwater runoff:

- Clearing and grubbing
- Grading and excavation
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Combined Staging Area – small fueling, minor equipment maintenance, sanitary facility.
- Materials Storage Area – solvents, adhesives, paving materials, aggregates, trash, etc.
- Construction Activities – paving, concrete pouring
- Concrete washout areas

Potential on-site pollutants:

- Fertilizer
- Concrete
- Glue, adhesives
- Gasoline, diesel fuel, hydraulic fluids, antifreeze
- Sanitary toilets

Attachment C - Sequence of Major Activities

1. Temporary erosion and sedimentation controls are to be installed as indicated on the approved subdivision construction plans and in accordance with the stormwater pollution prevention plan (SWPPP) that is required to be posted on the site. Install tree protection and initiate tree mitigation measures.
2. The environmental project manager, and/or site supervisor, and/or designated responsible party, and the general contractor will follow the stormwater pollution prevention plan (SWPPP) posted on the site. Temporary erosion and sedimentation controls will be revised, if needed, to comply with city inspectors' directives, and revised construction schedule relative to the water quality plan requirements and the erosion and sedimentation plan.
3. Temporary erosion and sedimentation controls will be inspected and maintained in accordance with the stormwater pollution prevention plan (SWPPP) posted on the site.
4. A sequence of major construction activities, as well as an estimated area of disturbance for each, is listed below:
    I. Clearing and grubbing – 87.31 acres
    II. Rough Cut BMPS – 6.78 acres
    III. Grading and excavation for roadway and lots – 36.96 acres
    IV. Excavation for utilities and storm sewer system – 4.95 acres
    V. Install final BMPs and stabilize – 6.78 acres
    VI. Construction of utilities and storm sewer system – 3.95 acres
    VII. Paving, striping, etc. – 8.81 acres
    VIII. Re-vegetation – 23.83 acres
    IX. Landscaping – 0.75 acres
5. Upon completion of construction and re-vegetation, the design engineer shall submit an engineer's letter of concurrence to Williamson County indicating that construction, including re-vegetation, is complete and in substantial conformity with the approved plans. After receiving this letter, a final inspection will be scheduled by the appropriate city inspector.
6. After construction is complete and all disturbed areas have been re-vegetated per plan to at least 90 percent established, remove the temporary erosion and sedimentation controls and complete any necessary final re-vegetation resulting from removal of the controls. Conduct any maintenance and rehabilitation of the permanent BMPs.

Attachment D – Temporary Best Management Practices and Measures

Prior to the commencement of any construction activity, the contractor shall install silt fence, construction entrances, and inlet protection, per the Erosion and Sedimentation Control Plan. All temporary BMPs are to be installed per TCEQ and local requirements.

As surface water flows from and through disturbed areas, the proposed temporary BMPs will prevent pollution by filtering the increased sediment loads and other pollutant sources (listed in "Attachment B – Potential Sources of Contamination") prior to any runoff leaving the site. As shown in the attached site plan, silt fence will be utilized downstream of any grading and construction activities to remove debris and sediment from run-off in the area (activities here will primarily involve trail grading and storm sewer excavation). Rock berms will be used to dissipate velocities and prevent erosion in channels where flow can concentrate, releasing runoff in sheet flow. Concrete washout basins will contain pollutants discharged when concrete trucks are washed out, and stabilized construction entrances will prevent the transport of sediment off-site.

In using the aforementioned treatment methods and maintaining natural drainage patterns downgradient of the proposed site, any flow to naturally occurring sensitive features, both known and unknown, will be maintained.

Attachment E – Request to Temporary Seal a Feature

Not applicable to this project.

Attachment F – Structural Practices

The following temporary BMP structural practices will be employed on the site:

A. Silt Fence – Used for sediment filtration along the downslope perimeter of portions of the project, as well as to prevent runoff from storage of excavated materials during utility construction. The fence retains sediment primarily by retarding flow and promoting deposition of sediment on the uphill side of the slope. Runoff is filtered as it passes through the geotextile.
B. Inlet Protection – To be provided around all proposed storm sewer inlets during construction. Locations are indicated on the attached site plan. The measures will trap and settle out sediment and debris prior to runoff entering the proposed storm sewer system.
C. Construction Entrance – Stone pads will be constructed at entrances and exits to the project to prevent off-site transport of sediment by construction vehicles. The pads are a minimum of 50’ long and 8” deep. They will be graded to prevent runoff from leaving the site.
D. Rock Berm – Berm structures will be secure in areas where the volume of runoff is too great for a silt fence and where drainage area is less than 5. Rock berms are used as a check dam in areas of concentrated flow, to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow.

Attachment G – Drainage Area Map

Existing and proposed drainage area maps are shown in the attached construction plans with this submittal.

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

In order to assist with managing erosion control, the contractor will rough cut the Batch Detention Pond to act as a temporary sedimentation pond for the sake of stormwater management during construction. The temporary sedimentation pond will then be converted into a batch detention pond for permanent stormwater management.

Attachment I – Inspection and Maintenance for BMPs

The inspection and maintenance of temporary BMPs will be made according to TCEQ RG-348, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices.

Inspection Personnel:

Inspections shall be conducted by qualified representatives of the contractor acting on behalf of the owner or a designated party, if hired separately by the owner. Each operator must delegate authority to the specifically described position or person performing inspections, as provided by 30 TAC 305.128, as an authorized person for signing reports and performing certain activities requested by the director or required by the TPDES general permit. This delegation of authority must be provided to the director of TCEQ in writing and a copy shall be kept along with the signed effective copy of the SWPPP.

Inspection Schedule and Procedures:

An inspection shall occur weekly and after any rain event.

The authorized party shall inspect all disturbed areas of the site, areas used for storage of materials that are exposed to precipitation, structural control measures, and locations where vehicles enter or exit the site.

Disturbed areas and areas used for storage of materials that are exposed to precipitation or within limits of the 1% annual chance (100 year) floodplain must be inspected for evidence of, or the potential for, pollutants entering the runoff from the site. Erosion and sediment control measures identified in the plan must be observed to ensure that they are operating correctly. Observations can be made during wet or dry weather conditions. Where discharge locations or points are accessible, they must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. This can be done by inspecting receiving waters to see where vehicles enter or exit the site for evidence of off-site sediment tracking.

Based on the results of the inspection, the site description and the pollution prevention measures identified in the plan must be revised as soon as possible after an inspection that reveals inadequacies. The inspection and plan review process must provide for timely implementation of any changes to the plan within 7 calendar days of the inspection.

An inspection report shall be completed, which summarizes the scope of the inspection, name(s) and qualifications of personnel conducting the inspection, the date(s) of the inspection, and major observations relating to the implementation of the SWPPP. Major observations shall include, at a minimum, location of discharges of sediment or other pollutants from the site, location of BMPs that need to be maintained, location of BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where BMPs are needed.

Actions taken as a result of the inspections must be described within, and retained as a part of, the SWPPP. Reports must identify and incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the

SWPPP and the TPDES general permit. The report must be signed by the authorized representative delegated by the operators in accordance with TAC 305.128.

Maintenance and Corrective Actions – Maintenance of erosion control facilities shall consist of the minimum requirements as follows:

A. In ongoing construction areas, inspect erosion control improvements to confirm facilities are in place and operable. Where facilities have been temporarily set aside or damaged due to construction activity, place facilities in service before leaving job site.
B. If weather forecast predicts a possibility of rain, check entire facilities throughout the site to ensure they are in place and operable. If job site weather conditions indicate a high probability of rain, make special inspection of erosion control facilities.
C. After rainfall events, review erosion control facilities as soon as the site is accessible. Clean rock berms, construction entrances, and other structural facilities. Determine where additional facilities or alternative techniques are needed to control sediment leaving the site.
D. After portions of the site have been seeded, review these areas on a regular basis in accordance with project specifications to assure property watering until grass is established. Re-seed areas where grass is not well-established.
E. Spills are to be handled as specified by the manufacturer of the product in a timely and safe manner by qualified personnel. The site superintendent will be responsible for coordinate spill prevention and cleanup operations.
F. Concrete trucks will discharge extra concrete or wash out drum only at an approved location on site. Residual product shall be properly disposed of.
G. Inspect vehicle entrances and exits for evidence of off-site tracking and correct as needed.
H. Remove sediment from traps and ponds no later than when the design capacity has been reduced by 50%.
I. If sediment escapes the site, the contractor, where feasible and where access is available, shall collect and remove sedimentation material by appropriate non-damaging methods. Additionally, the contractor shall correct the condition causing discharges.
J. If inspections or other information sources reveal a control has been used incorrectly, or that control is performing inadequately, the contractor must replace, correct, or modify the control as soon as practical after discovery of the deficiency.

Exhibit A

(Attached here is the "Atlas Ranch Phase 1, Section 1", Stormwater Facility, Inspection, Maintenance, Repair, and Retrofit Plan}/ otherwise referred to as MAINTENANCE PLAN)

EXHIBIT A

WILLIAMSON COUNTY, TEXAS

PERMANENT STORMWATER FACILITY

INSPECTION, MAINTENANCE, REPAIR, AND RETROFIT PLAN

Summary of Maintenance Procedures within this Maintenance Plan for the Storm-water Facilities at Atlas Ranch Phase 1 Section 1

The following maintenance procedures described below pertain to the maintenance of the storm-water facilities located at Atlas Ranch Phase 1 Section 1.

Detention Pond

Preventative Maintenance

1. Grass Cutting
2. Grass Maintenance
3. Vegetative Cover
4. Removal and Disposal of Trash and Debris
5. Sediment Removal and Disposal
6. Elimination of Mosquito Breeding Habits
7. Inspections and Reporting

Corrective Maintenance

1. Removal of Debris and Sediment
2. Structural Repairs
3. Wall, Embankment and Slope Repairs
4. Dewatering
5. Pond Maintenance
6. Extermination of Mosquitos
7. Erosion Repair
8. Fence Repair (as applicable)
9. Elimination of Trees, Brush, Roots, and Animal Burrows

Preventative Maintenance

1. Grass Mowing: Lawn mowing should be performed routinely, as needed, throughout the growing season of the storm-water detention areas. These areas are also landscaped areas and shall be regularly maintained. Grass height should not exceed 18 inches. Grass cuttings should be collected and disposed of offsite, or a mulching mower can be used. Regular mowing should also include weed control practices; however, herbicide use should be kept to a minimum. Healthy grass can be maintained without using fertilizers because runoff usually contains sufficient nutrients.
2. Grass Maintenance: All grassed areas shall be periodically fertilized, de-thatched and soil condition to maintain healthy growth. Areas of grass that are damaged by sediment accumulation, storm-water

flow, or other causes shall be re-seeded and grass over reestablished. Re-seeding shall be accomplished with native grass species.

3. Vegetative Cover: Perform periodic maintenance on trees, shrubs and ground cover to include fertilizing, pruning, and pest control to maintain healthy growth.
4. Removal and Disposal of Trash and Debris: After every rain event and windy conditions, the storm-water detention area shall be inspected for debris or trash that may have been deposited after such events. Removal of trash and debris will prevent possible damage to vegetated areas and eliminate potential mosquito breeding habitats. All debris and trash shall be removed and disposed of properly, complying with all local, county, state waste flow control regulations.
5. Sediment Removal and Disposal: Sediment that accumulated within the storm-water detention area shall be removed before it threatens the operation or storage volume of the detention pond. Disposal of sediment must comply with all local, county, state, and federal regulations.
6. Elimination of Mosquito Breeding Habits: The pond areas shall be routinely inspected after rainfall periods for ponded water in areas where debris or sediment accumulated or in areas of ground settlement. Sediment shall be removed, and areas of ground settlement shall be filled in seeded for grass establishment.
7. Inspections and Reporting: An inspection checklist and report form is included at the end of this Plan for use during routine inspection activities.

Corrective Maintenance

1. Removal of Debris and Sediment: Sediment, debris and trash, which threaten the discharge capacity of the storm-water detention pond, shall be removed immediately and properly disposed in a timely manner. Equipment and personnel should be available to perform the removal work on short notice. The lack of an available disposal site should not delay the removal of trash, debris, and sediment. Temporary disposal sites should be utilized if necessary.
2. Structural Repairs: Structural damage to outlet and inlet structures, trash racks, and walls from vandalism, flood events, other cause must be repaired promptly. Equipment, materials, and personnel must be available to perform repairs on short notice. The immediacy of the repairs will depend upon the nature of the damage and its effect on the safety and operation of the pond. Qualified personnel should only undertake the analysis of structural damage and the design and performance of structural repairs.
3. Wall, Embankment, and Slope Repairs: Damage to walls, embankments, and side slopes must be repaired promptly. The damage may be the result of rain or flood events, vandalism, animals, vehicles, or neglect. Typical problems include settlement, scouring, cracking, sloughing, seepage, and rutting. Equipment, materials and personnel must be available to perform these repairs on short notice. The immediacy of the repairs will depend upon the nature of the damage and its effect on the safety and operation of the pond. The analysis of damage and the design and performance of geotechnical repairs should only be undertaken by qualified personnel.
4. Dewatering: It may be necessary to remove ponded water from within a malfunctioning pond. The ponding may be the result of a blocked principal outlet or poor bottom drainage. Portable pumps may be necessary to remove the ponded water temporarily until a permanent solution can be implemented.
5. Pond Maintenance: Problems such as algae growth, excessive siltation, and mosquito breeding, should be addressed and corrected in a timely manner. The sooner the problem is corrected, the easier it will be to restore a balanced environment in the pond.
6. Extermination of Mosquitos: If neglected, the storm-water detention pond can readily become an ideal mosquito breeding area. Extermination of mosquitos will usually require

the services of an insect exterminator. Proper procedures carried out by trained personnel can control the mosquitos with a minimum of damage or disturbance to the environment. If mosquito control becomes necessary, the preventative maintenance program should also be re-evaluated, and more emphasis placed on control of mosquito breeding habits.

7. Erosion Repair: Vegetative cover or other protective measures are necessary to prevent the loss of soil from the erosive forces of wind and water. Where a re-seeding program has not been effective in maintaining a non-erosive vegetative cover, or other factors have exposed soils to erosion, corrective steps shall be initiated to prevent further loss of soil and any subsequent danger to the stability of the water quality facility. Soil loss can be controlled by a variety of materials and methods, including rip rap, gabion lining, sod, seeding, concrete lining, and re-grading.
8. Fence Repair: Fences, if installed on the property, are damaged by manty factors, including vandalism and storm events. Timely repair will maintain the security of the site.
9. Elimination of Trees, Brush, Roots, and Animal Burrows: Large roots can impair the stability of embankments and side slopes and animal burrows. Additionally, burrows can present a safety hazard for maintenance personnel. Trees and brush with extensive, woody root systems should be completely removed from embankment to prevent their de stabilization and the creation of seepage routes. Roots should also be completely removed to prevent their decomposition within the dam or embankment. Root voids and burrows should be plugged by filling with material similar ot the existing material, and capped just below grade with stone, concrete or other material. If plugging of the burrows does not discourage the animals from returning, further measures should be taken to either remove the animal population or to make critical areas unattractive.

Vegetative Filter Strip

Preventative Maintenance

1. Pest Management
2. Seasonal Mowing and Lawn Care
3. Inspection

Corrective Maintenance

1. Debris and Litter Removal
2. Sediment Removal
3. Grass Reseeding

Preventative Maintenance

1. 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. properly, complying with all local, county, state waste flow control regulations.
2. 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 18 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.

3. 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 3-91 restored to meet specifications. Construction of a level spreader device may be necessary to reestablish shallow overland flow.

Corrective Maintenance

1. 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.
2. 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.
3. 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.

MAINTENANCE CHECKLIST AND INSPECTION LOG

Name of Facility: _____

Location: _____ Date: _____

Crew Performing Work: _____ Work Started: date _____ - time _____

Equipment: _____ Work Started: date _____ - time _____

Weather: _____ Total Manhours of Work: _____

PREVENTATIVE MAINTENANCE

Work Item	**Items Required**	**Items Done**	**Comments and Special Instructions**
Grass Cutting			
Grass Maintenance			
Vegetative Cover			
Removal and Disposal of Trash and Debris			
Sediment Removal and Disposal			
Elimination of Mosquito Breeding Habits			
Inspections and Reporting			

CORRECTIVE MAINTENANCE

Work Item	**Items Required**	**Items Done**	**Comments and Special Instructions**
Removal of Debris and Sediment			
Structural Repairs			
Wall, Embankment and Slope Repairs			
Dewatering			
Pond Maintenance			
Extermination of Mosquitos			
Erosion Repair			
Fence Repair (as applicable)			
Elimination of Trees, Brush, Roots, and Animal Burrows			

MAINTENANCE CHECKLIST AND INSPECTION LOG

Name of Facility: _____

Location: _____ Date: _____

Crew Performing Work: _____ Work Started: date _____ - time _____

Equipment: _____ Work Started: date _____ - time _____

Weather: _____ Total Manhours of Work: _____

PREVENTATIVE MAINTENANCE

Work Item	**Items Required**	**Items Done**	**Comments and Special Instructions**
Pest Management			
Seasonal Mowing and Lawn Care			
Inspection			

CORRECTIVE MAINTENANCE

Work Item	**Items Required**	**Items Done**	**Comments and Special Instructions**
Debris and Litter Removal			
Sediment Removal			
Grass Reseeding			

Exhibit B

(Attached here is the "Atlas Ranch Phase 1, Section 1", Stormwater Facility, Inspection, Maintenance, Repair, and Retrofit Plan}/ otherwise referred to as MAINTENANCE PLAN)

EXHIBIT B

WILLIAMSON COUNTY, TEXAS

TEMPORARY STORMWATER FACILITY

INSPECTION, MAINTENANCE, REPAIR, AND RETROFIT PLAN

Summary of Maintenance Procedures within this Maintenance Plan for the Storm-water Facilities at Atlas Ranch Phase 1 Section 1

The following maintenance procedures described below pertain to the maintenance of the storm-water facilities located at Atlas Ranch Phase 1 Section 1.

Silt Fence

Maintenance Guidelines

1. Inspections
2. Sediment Removal
3. Repairs
4. Sediment Disposal

1. Inspections: Inspect all fencing weekly, and after any rainfall.
2. Sediment Removal: Remove sediment when buildup reaches 6 inches.
3. Repairs: Replace any torn fabric or install a second line of fencing parallel to the torn section. 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.
4. Sediment Disposal: When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

Temporary Construction Entrance

Maintenance Guidelines

1. Sediment Removal
2. Cleaning and Washing
3. Sediment Prevention

1. Sediment Removal: The entrance should be maintained in a condition, which will prevent tracking or flowing 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. Cleaning and Washing: All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way. 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.
3. Sediment Prevention: All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Inlet Protection

Maintenance Guidelines

1. Inspections
2. Sediment Removal
3. Repairs
4. Removal

1. Inspections: Inspection should be made weekly and after each rainfall. Repair or replacement should be made promptly as needed by the contractor.
2. Sediment Removal: 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. Repairs: Check placement of device to prevent gaps between device and curb. Inspect filter fabric and patch or replace if torn or missing.
4. Removal: Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

Rock Berm

Maintenance Guidelines

1. Inspections
2. Sediment Removal
3. Repairs
4. Removal

1. Inspections: Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.
2. Sediment Removal: Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
3. Repairs: Repair any loose wire sheathing. The berm should be reshaped as needed during inspection. 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.

4. Removal: The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

Concrete Washout Areas

Maintenance Guidelines

1. Concrete Waste Prevention
2. Runoff Prevention
3. Removal

1. Concrete Waste Prevention: Incorporate requirements for concrete waste management into material supplier and subcontractor agreements. Avoid mixing excess amounts of fresh concrete. Perform washout of concrete trucks in designated areas only. Do no wash out concrete trucks into storm drains, open ditches, streets, or streams. Do not allow excess concrete to be dumped onsite, except in designated areas.
2. Runoff Prevention: Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by construction a temporary pit or bermed area large enough for liquid and solid waste. Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
3. Removal: When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

MAINTENANCE CHECKLIST AND INSPECTION LOG

Name of Facility: _____

Location: _____ Date: _____

Crew Performing Work: _____ Work Started: date _____ - time _____

Equipment: _____ Work Started: date _____ - time _____

Weather: _____ Total Manhours of Work: _____

MAINTENANCE

Work Item	**Items Required**	**Items Done**	**Comments and Special Instructions**
Inspections			
Sediment Removal			
Repairs			
Sediment Disposal			

MAINTENANCE CHECKLIST AND INSPECTION LOG

Name of Facility: _____

Location: _____ Date: _____

Crew Performing Work: _____ Work Started: date _____ - time _____

Equipment: _____ Work Started: date _____ - time _____

Weather: _____ Total Manhours of Work: _____

MAINTENANCE

Work Item	**Items Required**	**Items Done**	**Comments and Special Instructions**
Sediment Removal			
Cleaning and Washing			
Sediment Prevention			

MAINTENANCE CHECKLIST AND INSPECTION LOG

Name of Facility: _____

Location: _____ Date: _____

Crew Performing Work: _____ Work Started: date _____ - time _____

Equipment: _____ Work Started: date _____ - time _____

Weather: _____ Total Manhours of Work: _____

MAINTENANCE

Work Item	**Items Required**	**Items Done**	**Comments and Special Instructions**
Inspections			
Sediment Removal			
Repairs			
Removal			

MAINTENANCE CHECKLIST AND INSPECTION LOG

Name of Facility: _____

Location: _____ Date: _____

Crew Performing Work: _____ Work Started: date _____ - time _____

Equipment: _____ Work Started: date _____ - time _____

Weather: _____ Total Manhours of Work: _____

MAINTENANCE

Work Item	**Items Required**	**Items Done**	**Comments and Special Instructions**
Inspections			
Sediment Removal			
Repairs			
Removal			

MAINTENANCE CHECKLIST AND INSPECTION LOG

Name of Facility: _____

Location: _____ Date: _____

Crew Performing Work: _____ Work Started: date _____ - time _____

Equipment: _____ Work Started: date _____ - time _____

Weather: _____ Total Manhours of Work: _____

MAINTENANCE

Work Item	**Items Required**	**Items Done**	**Comments and Special Instructions**
Concrete Waste Prevention			
Runoff Prevention			
Removal			

Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

The following is a schedule of interim and permanent soil stabilization practices:

- Prior to site disturbance
    - Install all temporary erosion and sedimentation control features.
- During construction
    - Maintain all temporary erosion and sedimentation control structures. Inspect all temporary erosion and sedimentation control structures on a weekly and/or daily basis and after all rain events.
- After completion of cons
    - Install all permanent erosion and sedimentation controls.
- After completion of permanent controls
    - Remove all temporary erosion and sedimentation control features.

Interim on-site stabilization measures, which are continuous, will include minimizing soil disturbance by exposing the smallest practical area of land required for the shortest period of time and maximizing use of natural vegetation. As soon as practical, all disturbed soil will be stabilized as per project specifications in accordance with TCEQ's Technical Guidance Manual (TGM). Mulching, netting, erosion blankets and seeding are acceptable.

Stabilization measure will be limited as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and except as provided below, will be initiated no more than fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased. Where construction activity in that portion of the site has temporarily or permanently ceased, and earth disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures do not have to be initiated on that portion of the 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 seasonably arid conditions, stabilization measures must be initiated as soon as possible.

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:

Print Name of Customer/Agent: Nicki Marino, P.E.

Date: 10/9/25

Signature of Customer/Agent

Nk Mrn

Regulated Entity Name: Atlas Ranch

Permanent Best Management Practices (BMPs)

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

1. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

   ☐ N/A

2. ☒ 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.

   ☒ 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. ☒ Owners 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 multi-family 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 business sites.

6. ☒ **Attachment B - BMPs for Upgradient Stormwater**.

☒ 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. ☒ **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. ☐ **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. ☒ 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.

☐ 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. ☒ **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:

☒ Design calculations (TSS removal calculations)

☒ TCEQ construction notes

☒ All geologic features

☒ All proposed structural BMP(s) plans and specifications

☐ N/A

11. ☒ **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:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
    ☒ 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.

    ☒ N/A

13. ☐ **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.

    ☐ N/A

15. ☒ 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

Upgradient stormwater can be characterized as runoff flowing from adjacent sites which contain either no impervious cover or are being treated by existing BMPs. Upgradient stormwater will discharge towards Salado Creek.

Attachment C – BMPs for On-Site Stormwater

On-site stormwater will be treated by (3) different BMPs which account for all proposed impervious cover on site, and portions from the future Phase 1, Section 2 development. The one Batch Detention Pond will account for a majority of the TSS Removal. There are also vegetative filter strips that will account for additional treatment and are oversized to account for untreated offsite runoff. A summary of the TSS Removal requirements are shown below.

Table 1. TSS Summary Table

	AREA	IMPERVIOUS AREA PRE-DEVELOPMENT	IMPREVIOUS AREA POST-DEVELOPMENT	TSS REQ.	REQ. VOLUME	TSS REMOVED
POND A	42.07	0.19	24.34	21,019	98,043	21,206
OS-1	1.80	0.07	0.00	-	-	-
CULV. A	69.28	0.16	0.16	-	-	-
VFS 1	2.64	0	1.77	1,541	-	1,679
VFS 1A-AG	4.22	0.04	4.19	3,613		3,948
OS-TRAIL	1.35	0.00	0.25	221		-
	121.36	**0.47**	**30.72**	**26,395**	**98,043**	**26,832**

Attachment D – BMPs for Surface Streams

No BMPs are proposed specifically for surface streams. Proposed on-site BMPs and drainage systems are designed to mimic existing flow patterns.

Attachment E – Request to Seal a Feature

Not applicable to this project.

Attachment F – Construction Plans

Construction plan sheets for BMPs, proposed storm improvements, and erosion controls are attached with this submittal.

OVERALL TRAIL LAYOUT

STATE OF TEXAS
NICHOLAS A. MARINO
146339
LICENSED PROFESSIONAL ENGINEER
11-27-2025

PROJECT:	1723-11912	DRAWN BY:	KEL
DATE:	10/23/2025	CHECKED BY:	RR,NM

GRAY CIVIL, INC.
512-452-0371
gray-civil.com
8834 N. Capital of Texas Highway, Suite 140
5316 W. US Highway 290 Service Road, Suite 220
TBPELS FIRM #2946

PROPOSED TRAIL LAYOUT
1 OF 4

N

0 50' 100' 200'
SCALE: 1" = 100'

LEGEND

- PROPERTY BOUNDARY
- PHASE BOUNDARY
- 950 EXISTING CONTOUR
- 950 EXISTING CONTOUR
- 950 PROPOSED CONTOUR
- 950 PROPOSED CONTOUR
- 500YR 500YR 500-YR FLOODPLAIN PER FEMA PANEL 48491C0125F DATED DECEMBER 20, 2019
- TCEQ WPAP BOUNDARY
- LOC-SF SALADO CREEK FEMA FIS 500-YR FLOODPLAIN PER STUDY BY BGE, INC., OCTOBER 2023
- ATLAS-14 100-YR EXISTING FLOODPLAIN
- ATLAS-14 100-YR PROPOSED FLOODPLAIN
- LOC LOC LIMITS OF CONSTRUCTION
- LOC-SF LIMITS OF CONSTRUCTION & SILT FENCE
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MATCHLINE TO SHEET 2

STATE OF TEXAS
NICHOLAS A. MARINO
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PROPOSED TRAIL LAYOUT
2 OF 4

N

0 50' 100' 200'

SCALE: 1" = 100'

LEGEND

- PROPERTY BOUNDARY
- PHASE BOUNDARY
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- 950 PROPOSED CONTOUR
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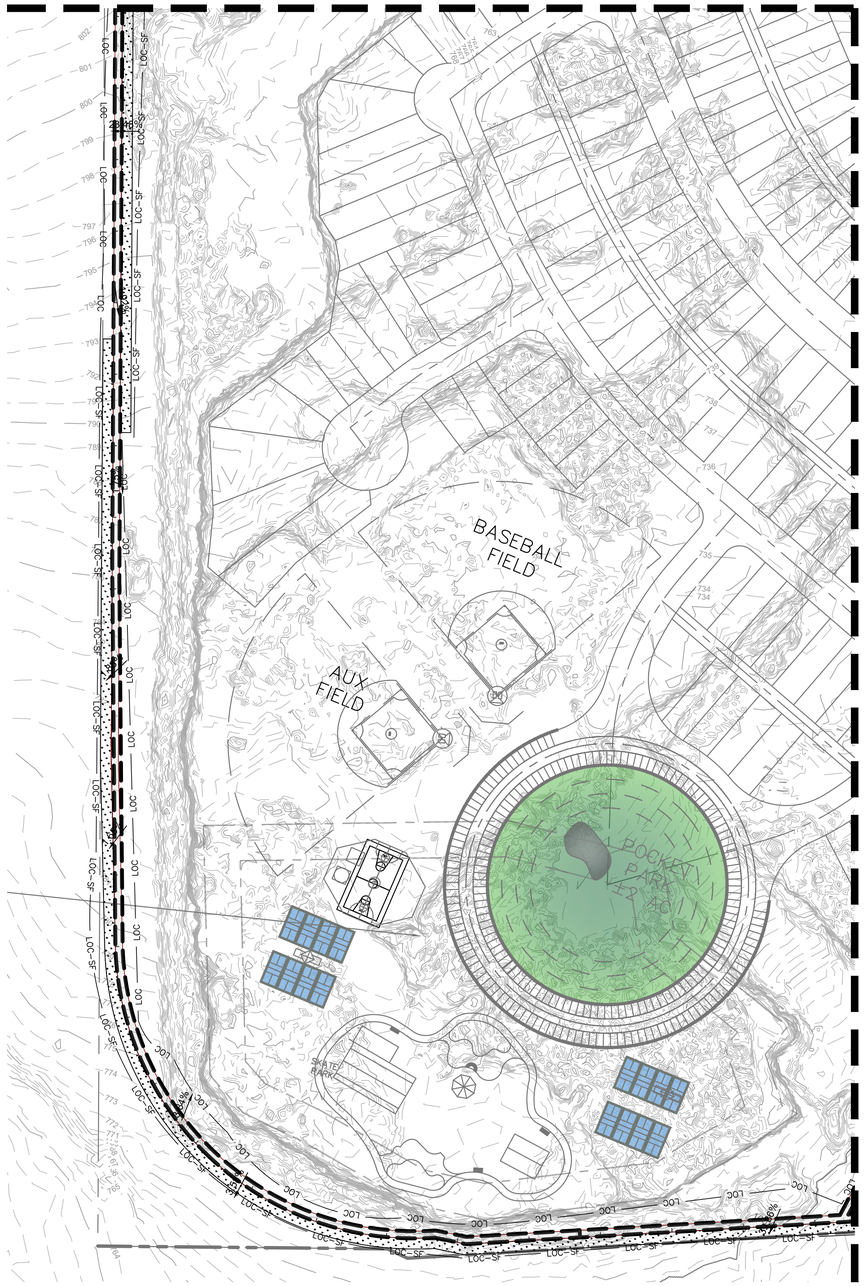
PROPOSED TRAIL LAYOUT
3 OF 4

MATCHLINE TO SHEET 4



MATCHLINE TO SHEET 2

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SCALE: 1" = 100'

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PROPOSED TRAIL LAYOUT
4 OF 4

N

0 50' 100' 200'

SCALE: 1" = 100'

LEGEND

- PROPERTY BOUNDARY
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- 950 EXISTING CONTOUR
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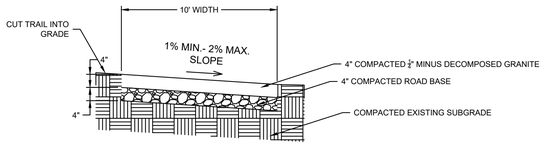
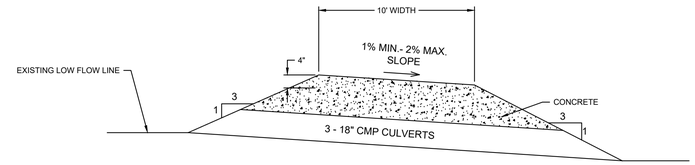
PROPOSED TRAIL DETAILS



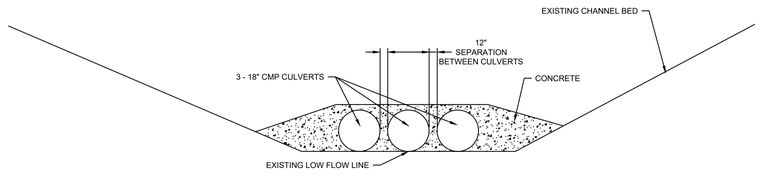
DECOMPOSED GRANITE TRAIL SECTIONS
NTS

PAVED TRAIL SECTIONS
NTS

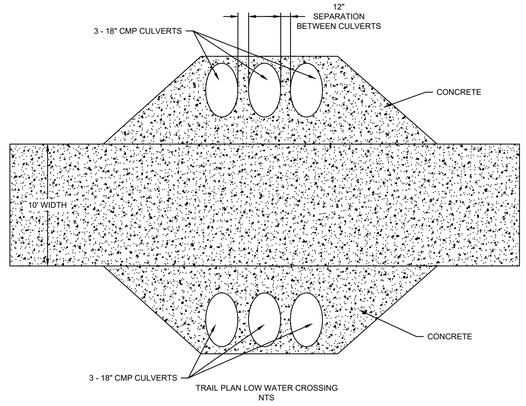
ATLAS RANCH LOW WATER CROSSING CONCEPT



TRAIL SECTION LOW WATER CROSSING
NTS



TRAIL PROFILE LOW WATER CROSSING
NTS



TRAIL PLAN LOW WATER CROSSING
NTS

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DATE:	11/17/2025	CHECKED BY:	RR,NM

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PROPOSED TRAIL VFS
1 OF 4

VFS	Area (sf)	IC (sf)
VFS 1A	5001.1	4981.60413
VFS 1B	2811.6	2250.91147
VFS 1C	1676.1	1663.14241
VFS 1E	2047.1	2047
VFS 1F	8977.4	8977.4
VFS 1G	5840.4	5589.57
VFS 1N	13832.5	13832.5
VFS 1O	8277.6	7815.67
VFS 1P	3866.9	3866.9
VFS 1Q	5173.9	5173.9
VFS 1R	1253.1	1253.1
VFS 1S	10080.8	10080.8
VFS 1T	2517.5	2517.5
VFS 1U	3177.5	3169.53
VFS 1V	31683.5	31683.5

CROSSING	Area (SF)	IC (SF)
1	433.1	433.1399
2	15418	2851.452
3	1038.9	1038.916
4	5853.4	694.9812
5	735.4	367.5832
6	27414.1	2143.532
7	1551.4	1551.392
8	6231.7	2000.798

N

0 50' 100' 200'
SCALE: 1" = 100'

LEGEND

- PROPERTY BOUNDARY
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- 950 EXISTING CONTOUR
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STATE OF TEXAS
NICHOLAS A. MARINO
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LICENSED PROFESSIONAL ENGINEER
11-27-2025

H:\PROJECTS\1723 - ATLAS RANCH HOLDINGS\11912 ATLAS RANCH PHASE 2 ENTITLEMENTS\CAD\EXHIBITS\11912-PROPOSED TRAIL LAYOUT.DWG DATE: 10/23/2025 3:10:45 PM BY: LJENKINS

PROJECT:	1723-11912	DRAWN BY:	KEL
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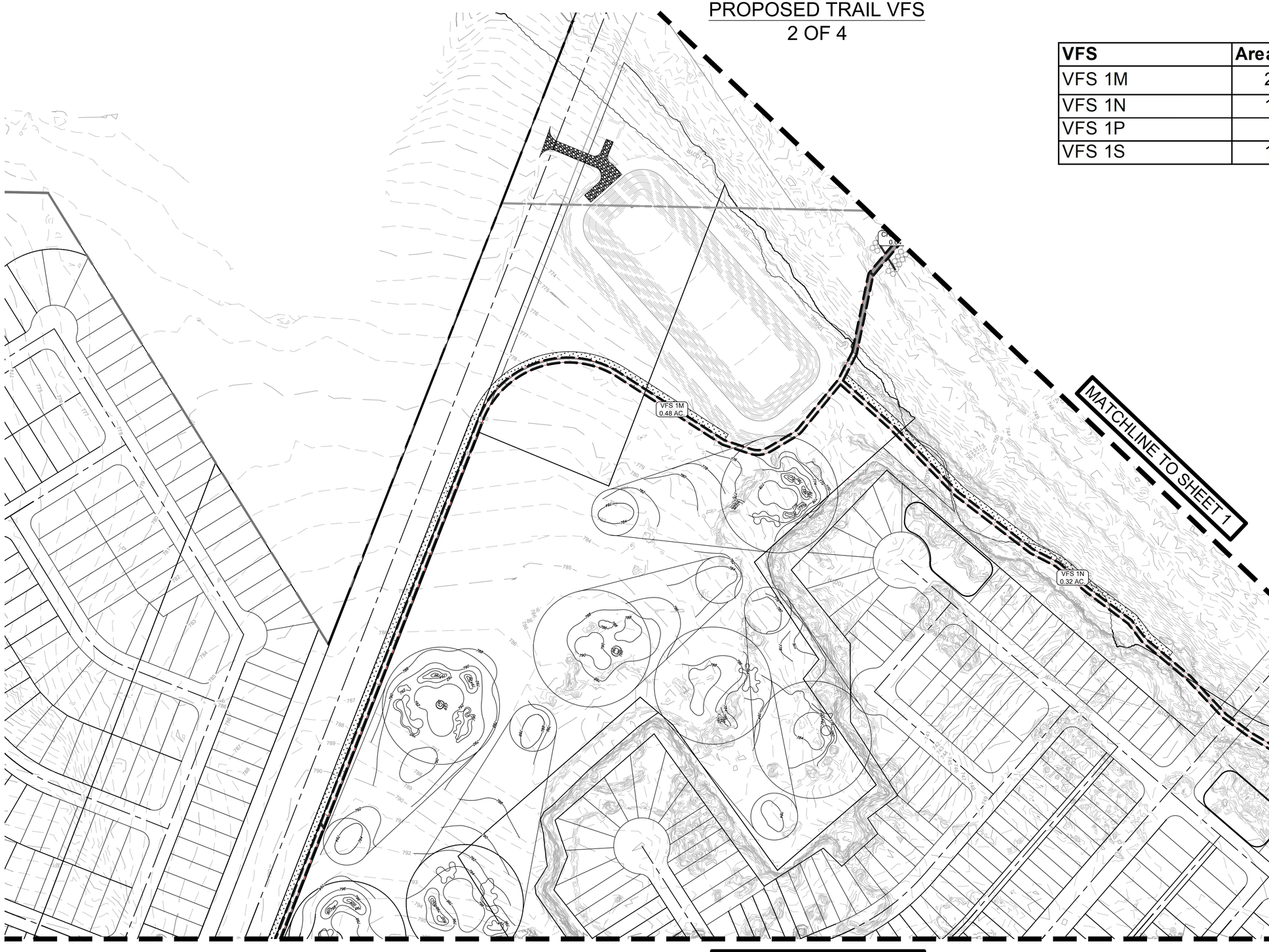
GRAY

PROPOSED TRAIL VFS
2 OF 4

VFS	Area (sf)	IC (sf)
VFS 1M	21033.8	21033.8
VFS 1N	13832.5	13832.5
VFS 1P	3866.9	3866.9
VFS 1S	10080.8	10080.8



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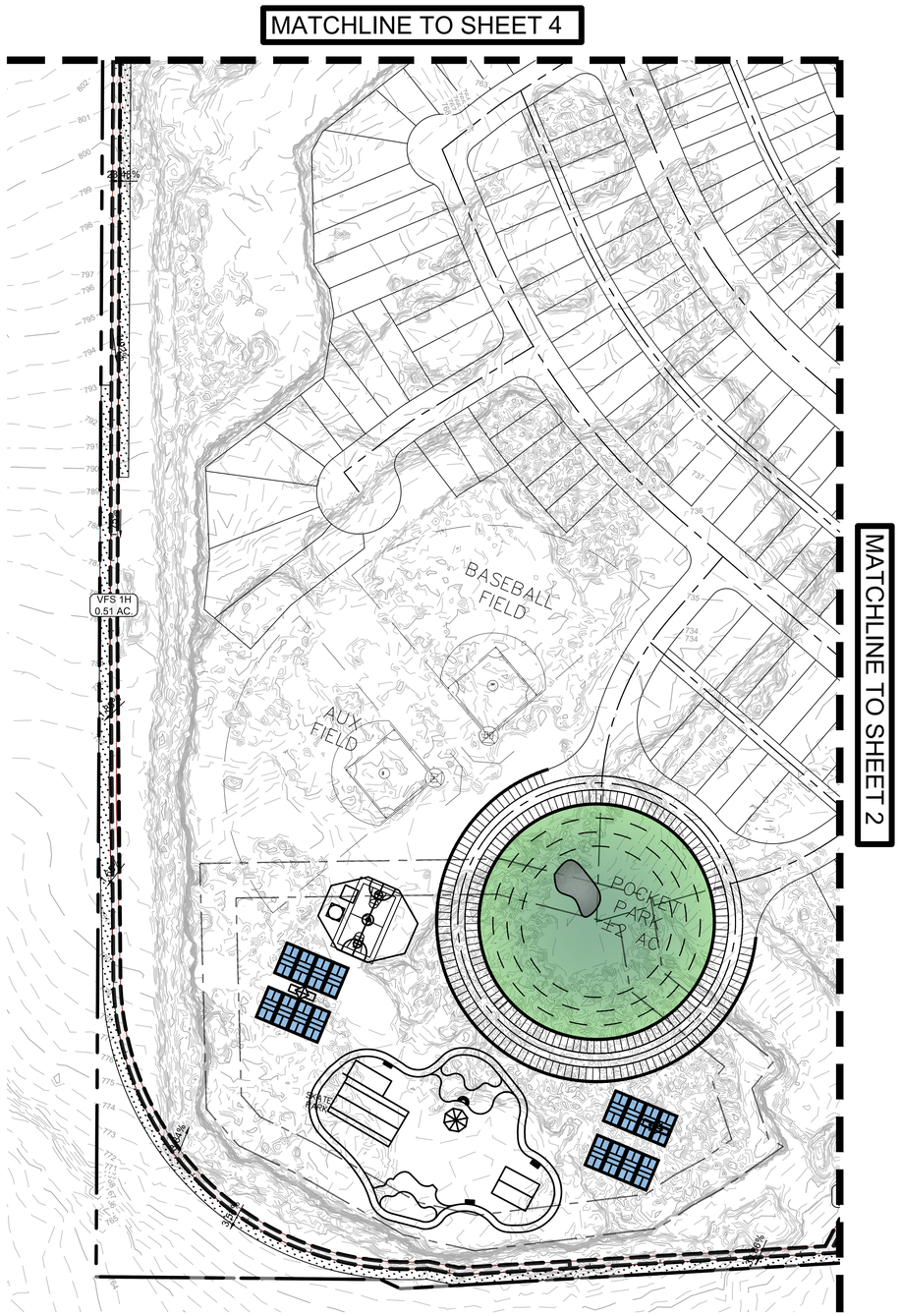
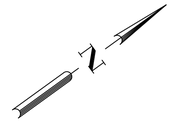
PROPOSED TRAIL VFS
3 OF 4





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SCALE: 1" = 100'

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- VEGETATIVE FILTER STRIP
- PAVEMENT

VFS	Area (sf)	IC (sf)
VFS 1H	22068.2	22068.2

PROJECT:	1723-11912	DRAWN BY:	KEL
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PROPOSED TRAIL VFS
4 OF 4

N

0 50' 100' 200'
SCALE: 1" = 100'

LEGEND

- PROPERTY BOUNDARY
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- 500YR 500YR 500-YR FLOODPLAIN PER FEMA PANEL 48491C0125F DATED DECEMBER 20, 2019
- TCEQ WPAP BOUNDARY
- SALADO CREEK FEMA FIS 500-YR FLOODPLAIN PER STUDY BY BGE, INC., OCTOBER 2023
- ATLAS-14 100-YR EXISTING FLOODPLAIN
- ATLAS-14 100-YR PROPOSED FLOODPLAIN
- LOC LOC LIMITS OF CONSTRUCTION
- LOC-SF LIMITS OF CONSTRUCTION & SILT FENCE
- SF SF SILT FENCE
- TEMPORARY ROCK BERM
- VEGETATIVE FILTER STRIP
- PAVEMENT

VFS	Area (sf)	IC (sf)
VFS 1I	7698.1	7698.1
VFS 1L	3759.7	3759.7
VFS 1K	5194.5	5194.5
VFS 1J	18035.2	18035.2

STATE OF TEXAS
NICHOLAS A. MARINO
146339
LICENSED
PROFESSIONAL ENGINEER
11-27-2025

PROJECT:	1723-11912	DRAWN BY:	KEL
DATE:	10/23/2025	CHECKED BY:	RR,NM

GRAY CIVIL, INC.
512-452-0371
gray-civil.com
8834 N. Capital of Texas Highway, Suite 140
5316 W. US Highway 290 Service Road, Suite 220
TBPELS FIRM #2946

TSS CALCS
1 OF 1

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Atlas Ranch
Date Prepared: 12/10/2024

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Williamson	
Total project area included in plan * =	895.94	acres
Predevelopment impervious area within the limits of the plan * =	2.80	acres
Total post-development impervious area within the limits of the plan* =	34.720	acres
Total post-development impervious cover fraction * =	0.04	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	27781	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 11

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = VFS 1A-1V

Total drainage basin/outfall area =	4.22	acres
Predevelopment impervious area within drainage basin/outfall area =	0.04	acres
Post-development impervious area within drainage basin/outfall area =	4.19	acres
Post-development impervious fraction within drainage basin/outfall area =	0.99	
$L_{M\ THIS\ BASIN}$ =	3613	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	4.22	acres
A_I =	4.19	acres
A_P =	0.03	acres
L_R =	3948	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 3948 lbs.

F = 1.00

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Atlas Ranch
Date Prepared: 12/10/2024

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
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where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Williamson	
Total project area included in plan * =	895.94	acres
Predevelopment impervious area within the limits of the plan * =	2.80	acres
Total post-development impervious area within the limits of the plan* =	34.720	acres
Total post-development impervious cover fraction * =	0.04	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	27781	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 11

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = OS (TRAIL)

Total drainage basin/outfall area =	1.35	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.25	acres
Post-development impervious fraction within drainage basin/outfall area =	0.19	
$L_{M\ THIS\ BASIN}$ =	221	lbs.

Name	Area (sf)	Area (ac)	Imperv. Cover (sf)	Imperv. Cover (ac)
VFS 1A	5001.10	0.11	4981.60	0.11
VFS 1B	2811.60	0.06	2250.91	0.05
VFS 1C	1676.10	0.04	1663.14	0.04
VFS 1E	2047.10	0.05	2047.00	0.05
VFS 1F	8977.40	0.21	8977.40	0.21
VFS 1G	5840.40	0.13	5589.57	0.13
VFS 1H	22068.20	0.51	22068.20	0.51
VFS 1I	7698.10	0.18	7698.10	0.18
VFS 1J	18035.20	0.41	18035.20	0.41
VFS 1K	5194.50	0.12	5194.50	0.12
VFS 1L	3759.70	0.09	3759.70	0.09
VFS 1M	21033.80	0.48	21033.80	0.48
VFS 1N	13832.50	0.32	13832.50	0.32
VFS 1O	8277.60	0.19	7815.67	0.18
VFS 1P	3866.90	0.09	3866.90	0.09
VFS 1Q	5173.90	0.12	5173.90	0.12
VFS 1R	1253.10	0.03	1253.10	0.03
VFS 1S	10080.80	0.23	10080.80	0.23
VFS 1T	2517.50	0.06	2517.50	0.06
VFS 1U	3177.50	0.07	3169.53	0.07
VFS 1V	31683.50	0.73	31683.50	0.73
OS 1	433.10	0.01	433.14	0.01
OS 2	15418.00	0.35	2851.45	0.07
OS 3	1038.90	0.02	1038.92	0.02
OS 4	5853.40	0.13	694.98	0.02
OS 5	735.40	0.02	367.58	0.01
OS 6	27414.10	0.63	2143.53	0.05
OS 7	1551.40	0.04	1551.39	0.04
OS 8	6231.70	0.14	2000.80	0.05
TOTAL:	242682.50	5.57	193774.32	4.45

PROJECT:	1723-11912	DRAWN BY:	KEL
DATE:	10/23/2025	CHECKED BY:	RR,NM

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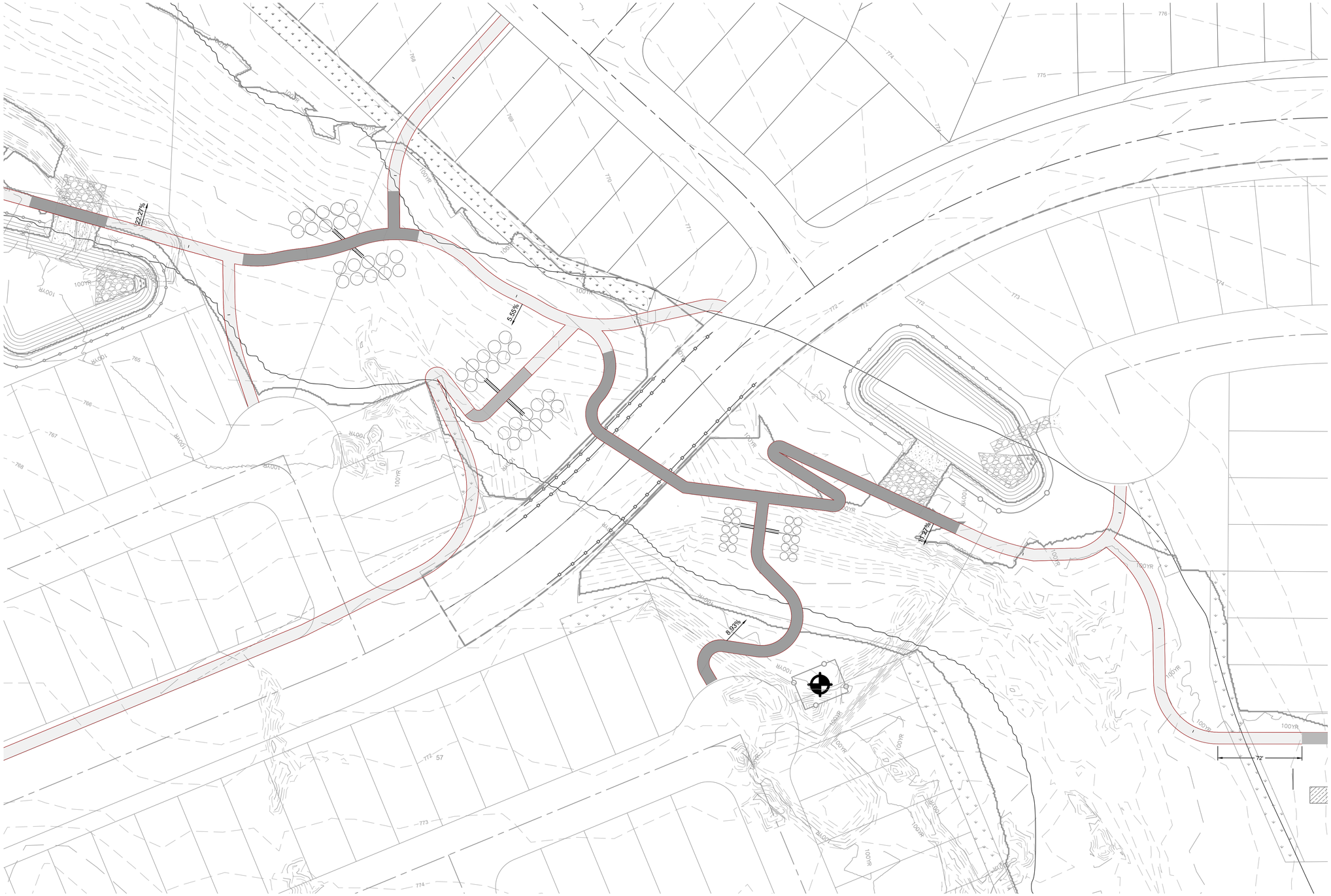
CULVERT CROSSINGS
1 OF 2



N

0 20' 40' 80'
SCALE: 1" = 40'

STATE OF TEXAS
NICHOLAS A. MARINO
146339
LICENSED
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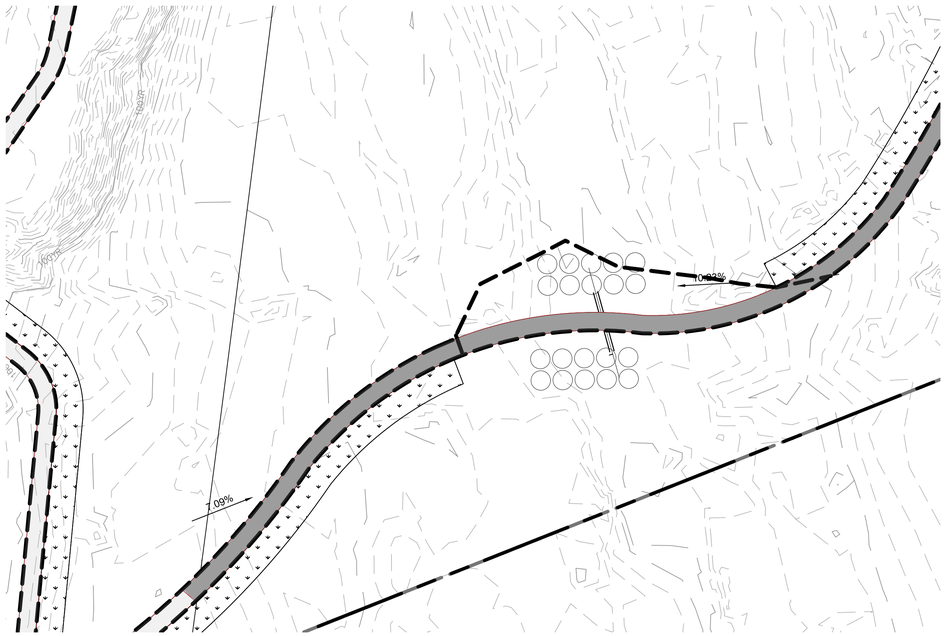
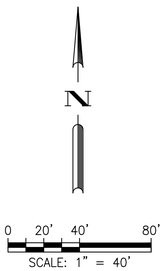
CULVERT CROSSINGS
2 OF 2





PROJECT:	1723-11912	DRAWN BY:	KEL
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Attachment G – Inspection, Maintenance, Repair and Retrofit Plan

Batch Detention Pond

The pond should be inspected at least twice per year, preferably during wet weather. The inspections should check for clogging of the primary outfall mechanism, as well as erosion issues in the upper stage pilot channel and its flow path to the lower stage, if any. Erosion within and downstream of the BMP should be identified and repaired and/or revegetated immediately.

The basin, basin side slopes, and embankment must be mowed to prevent woody growth and control weeds. A mulching mower should be used, or the grass clippings should be caught and removed. Mowing should take place at least twice a year, or more frequently if vegetation exceeds 18 inches in height. More frequent mowing to maintain aesthetic appeal may be necessary for landscaped areas. At the time of mowing, litter and debris should be removed from the surface of the basin. Particular attention should be given to floatable debris around the outlet structure. The outlet should be checked for possible clogging or obstructions and any debris removed. Additionally, at this time, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.).

With each inspection, any damage to structural elements of the basin (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. An example of this type of repair can include patching of cracked concrete, sealing of voids, removal of vegetation from cracks and joints. The various inlet/outlet structures in a basin will eventually deteriorate and must be replaced.

Sediment shall be removed from the basin at least every 5 years, when sediment depth exceeds 6 inches, when the sediment interferes with the level sensor or when the basin does not drain within 48 hours. Care should be taken not to compromise the basin lining during maintenance.

The Logic Controller should be inspected as part of the twice yearly investigations. Verify that the external indicators (active, cycle in progress) are operating properly by turning the controller off and on, and by initiating a cycle by triggering the level sensor in the basin. The valve should be manually opened and closed using the open/close switch to verify valve operation and to assist in inspecting the valve for debris. The solar panel should be inspected and any dust or debris on the panel should be carefully removed. The controller and all other circuitry and wiring should be inspected for signs of corrosion, damage from insects, water leaks, or other damage. At the end of the inspection, the controller should be reset.

Vegetated Filter Strips

Inspection of the filter strip for erosion and damage to vegetation should occur at least twice per year; additional inspection periods, however, should occur after heavy rainfall. The BMPs should be checked for uniformity of grass cover, debris and litter, and areas of sediment accumulation. If areas are found that have bare spots or that need restoration, those areas should be replanted to meet the TCEQ requirements.

Inspections for debris and litter removal should be performed twice per year, at the minimum. Routine periodic checks are preferred. The filter strips should be kept free of obstructions and debris to allow for

proper usage and minimal blockage. Additionally, monitoring to ensure channels and preferential flow paths have not developed should be conducted during routine inspection.

Grass areas in and around basins must be mowed at least four times a year to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. When mowing is performed, a mulching mower should be used, or grass clippings should be caught and removed. Regular mowing should also include weed control practices; herbicide usage, however, should be kept to a minimum.

*All inspection and maintenance records must be kept at the office of the operator for the previous three years.

*An amended copy of this document will be provided to the TCEQ within thirty (30) days of any changes in the following information.

Responsible Party:	Matt Michelsen – Atlas Ranch Holdings, LP
Mailing Address:	115 E. 5th St #200
City, State, Zip:	Austin, TX 78701
Telephone:	(848) 204 - 4100

Atlas Ranch Holdings, LP
By: Atlas Ranch Holdings GP, LLC, its General Partner

(Signature of Responsible Party)

Agent/Engineer:	Nick Marino, P.E. – Gray Engineering, Inc.
Mailing Address:	8834 N. Capital of Texas Highway, Suite 140
City, state, Zip:	Austin, Texas 78759
Telephone:	(469) 834-8611

(Signature of Agent/Engineer)

Attachment H – Pilot-Scale Field Testing Plan

Not applicable to this project.

Attachment I – Measures for Minimizing Surface Stream Contamination

The site will utilize silt fence, with all stabilization installed prior to construction. After construction is completed, all stabilization will be removed. These methods will minimize any increases in erosion caused by construction. The proposed permanent BMPs will also treat any stormwater passing through the site prior to the stormwater returning to existing drainage patters, eventually flowing into surface streams.

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

I Matt Michelson,
Print Name

Owner,
Title - Owner/President/Other

of Atlas Ranch Holdings, L.P.,
Corporation/Partnership/Entity Name

have authorized Nick Marino, P.E.
Print Name of Agent/Engineer

of Gray Engineering, Inc.
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.

2. 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.

3. 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:
Atlas Ranch Holdings, LP

By: Atlas Ranch Holdings GP, LLC,
its General Partner

By: _____ 05 | 15 | 2024
Applicant's Signature Date

THE STATE OF TX §

County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Matthew Michelsen known 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 15 day of May 2024.

SHARON MAJORS
MY COMMISSION EXPIRES
04/16/2028
NOTARY ID: 134855352

_____
NOTARY PUBLIC

Sharon Majors
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 04 | 16 | 2028

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Atlas Ranch
Regulated Entity Location: Just NW of the intersection of CR-305 and CR-344 near Jarrell, TX
Name of Customer: Atlas Ranch Holdings, L.P.
Contact Person: Matt Michelsen Phone: (858) 204-4100
Customer Reference Number (if issued):CN 606063634
Regulated Entity Reference Number (if issued):RN 111613758

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ 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
☒ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office
☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ 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 Plan: Multiple Single Family Residential and Parks	895.94 Acres	$ 10,000.00
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	$

Signature: _____

Date: 10/7/25

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 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $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

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 606063634		**RN 111613758**

SECTION II: Customer Information

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

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

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

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

Atlas Ranch Holdings LP

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
804272930	32081437587		

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

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

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

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

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

15. Mailing Address:	115 E 5th St #200							
	City	Austin	**State**	TX	**ZIP**	78701	**ZIP + 4**	

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

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

SECTION III: Regulated Entity Information

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

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

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

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

Atlas Ranch Phase 1, Section 1

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

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

25. Description to Physical Location:	Located 0.88 miles WNW of the intersection of CR305 and CR304, approximately 2 miles northwest of the City of Jarrell

26. Nearest City	State	Nearest ZIP Code
Jarrell	TX	76537

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

27. Latitude (N) In Decimal:	30.841665		28. Longitude (W) In Decimal:	-97.633734	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	50	29.9934	-97	38	1.4424

29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)
		237210	

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

34. Mailing Address:	**115 E 5th St #200**						
	City	**Austin**	**State**	**TX**	**ZIP**	**78701**	**ZIP + 4**
35. E-Mail Address:	**mcm@michelsen.com**						

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

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

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

SECTION IV: Preparer Information

40. Name:	Nick Marino, P.E.	**41. Title:**	Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(469) 834-8611		( ) -	

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:	Gray Engineering, Inc	**Job Title:**	Project Manager
Name *(In Print):*	Nick Marino, PE	**Phone:**	(469) 834- **8611**
Signature:	Nik Mino	**Date:**	10/9/25