



**US Army Corps
of Engineers**
Fort Worth District

Public Notice

Applicant: Mitigation Strategies, LLC

Permit Application No.: SWF-2012-00097

Date: March 26, 2012

The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

Regulatory Program

Since its early history, the U.S. Army Corps of Engineers has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the U.S. Army Corps of Engineers Regulatory Program.

Section 10

The U.S. Army Corps of Engineers is directed by Congress under Section 10 of the Rivers and Harbors of 1899 (33 USC 403) to regulate *all work or structures in or affecting the course, condition or capacity of navigable waters of the United States*. The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

Section 404

The U.S. Army Corps of Engineers is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the *discharge of dredged and fill material into all waters of the United States, including wetlands*. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

Contact

Name: Mr. Eric Dephouse, Project Manager

Phone Number: (817) 886-1820

PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT

SUBJECT: This public notice is being issued to provide interested parties an opportunity to comment on a proposal to create the Middle Colorado Stream Bank (MCSB), located southwest of the city of Marble Falls, Texas near Horseshoe Bay.

APPLICANT: Mitigation Strategies, LLC
c/o Allen McReynolds
3733-1 Westheimer Road #711
Houston, Texas 77027

APPLICATION NUMBER: SWF-2012-00097

DATE ISSUED: March 26, 2012

LOCATION: The proposed 87-acre MCSB is part of a larger tract of land (approximately 1,640 acres) located approximately 5 miles southwest of Marble Falls, Blanco and Llano Counties, Texas (see Figure 1 - Location Map). The approximate Universal Transverse Mercator coordinates for the proposed project are 30.503814 North and 98.370490 West on the Durman Mountains, Marble Falls, Howell Mountains, and Round Mountain 7.5 minute U.S. Geological Survey quadrangle maps. The proposed bank is located within the Edwards Plateau Ecoregion (Griffith et. al. 2004) and the Buchanan-Lyndon B watershed (12090201) of the Middle Colorado River basin (HUC 120902).

PROJECT DESCRIPTION: Mitigation Strategies, LLC (the Sponsor) is proposing the restoration of approximately 38,225 linear feet of intermittent, ephemeral, and perennial streams. Restoration activities would involve cattle exclusion, channel reconstruction, and re-vegetation of riparian areas. Credits produced at the Site would be used to offset permitted impacts to ephemeral, intermittent, and perennial channels within the proposed service area (see Figure 4 - Service Area Map).

The Sponsor is proposing primary, secondary, and tertiary service areas for the Site (see Figure 4 – Service Area Map). The proposed primary service area consists of the project's native 8-digit Hydrologic Unit Code (HUC; 12090201), which includes parts of Mills, Lampasas, San Saba, Llano, Burnet, Gillespie, and Blanco Counties. The proposed secondary service area consists of the project's native Level III Ecoregion, Edwards Plateau, contained within the adjoining HUCs (12090205, 12090206, and 12090204). The secondary service area would include portions of Llano, Mason, Kerr, Kimble, Gillespie, Blanco, Burnet, Hays, and Travis counties. The proposed tertiary service area consists of the project's native Level III Ecoregion, Edwards Plateau, contained within the adjoining HUC (12090205). The proposed tertiary service area would include portions of Travis County. All of the proposed service areas are contained within the Colorado River basin (6-digit HUC 120902).

The site is currently used for livestock grazing, including cattle and horses. Livestock have direct, unlimited access to the site's channels, and as a result, the channels are actively eroding. The project's channels are actively degrading (channel incision) and widening. The site is therefore considered unstable and highly disturbed. Further, the entire ranch site has been cleared and used for ranching and agricultural production for many decades (see Figure 3 – Waters of the U.S. 2010 Aerial Map).

The proposed restoration plan includes the reconstruction of stable channel geometry (cross-sectional width and depth) as well as slope and sinuosity to re-establish natural riffle-pool streams capable of conveying water and sediment supplied by the project's watersheds. In addition, cattle would be permanently excluded from the project's channels and riparian areas. Riparian re-vegetation would consist of species native to the Edwards Plateau; invasive species would be actively removed and managed from all restored riparian areas. The proposed bank's conservation area (protected by way of conservation easements) would permanently protect a minimum of 50 feet of land on both sides of the project's channels, totaling +/-87 acres (see Figures 9 - 14).

A mitigation banking instrument (MBI) would be developed in accordance with the Compensatory Mitigation for Losses of Aquatic Resources (CMLR), (Federal Register, Thursday, April 10, 2008, Vol. 73, No. 70, pp. 19594-19705). The MBI would detail the legal and physical characteristics of the bank and how the bank would be established and operated. Subjects addressed in detail in the MBI would include development of the site, service area, credit determination, financial assurances, scope of agreement, purpose and goals of the bank, baseline conditions, performance standards for enhancement activities, accounting procedures, monitoring and reporting, long-term maintenance and protection, and transfer of bank ownership or sponsorship. The USACE, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service (USFWS), Texas Commission on Environmental Quality, Railroad Commission of Texas, and Texas Parks and Wildlife Department comprise the Interagency Review Team (IRT), and would be involved in developing the MBI and may be signatories to the final document.

Implementation of the proposed mitigation bank would require Department of the Army Authorization under Section 404 of the Clean Water Act. Based on preliminary evaluation by the USACE, it appears that the proposed bank may be authorized by nationwide permit 27 for Aquatic Habitat Restoration, Establishment, and Enhancement Activities.

ENDANGERED AND THREATENED SPECIES: The USACE has reviewed the USFWS's latest published version of endangered and threatened species to determine if any may occur in the project area. The whooping crane (*Grus Americana*), black-capped vireo (*Vireo atricapilla*), and golden-cheeked warbler (*Dendroica chrysoparia*) are listed as endangered in Blanco and Llano Counties. The bald eagle (*Haliaeetus leucocephalus*) is also known to occur in these areas. Although the bald eagle has been delisted; its status remains in a period of monitoring until five years after delisting. Our initial review indicates that the proposed work would have no effects on any federally-listed endangered or threatened species.

NATIONAL REGISTER OF HISTORIC PLACES: The area of the proposed mitigation bank has never been formally surveyed for the presence of prehistoric or historic sites. Informal work

has identified three sites on the property: site 41LL467 is an historic homestead; sites 41LL66 and 41LL68 are prehistoric sites. The sites have not had any formal determination of eligibility to the National Register of Historic Places (NRHP) and remain potentially eligible for inclusion in the NRHP. This area is considered to have a high potential for the occurrence for additional historic and prehistoric sites. Formal pedestrian survey of the property may be required to document and assess sites prior.

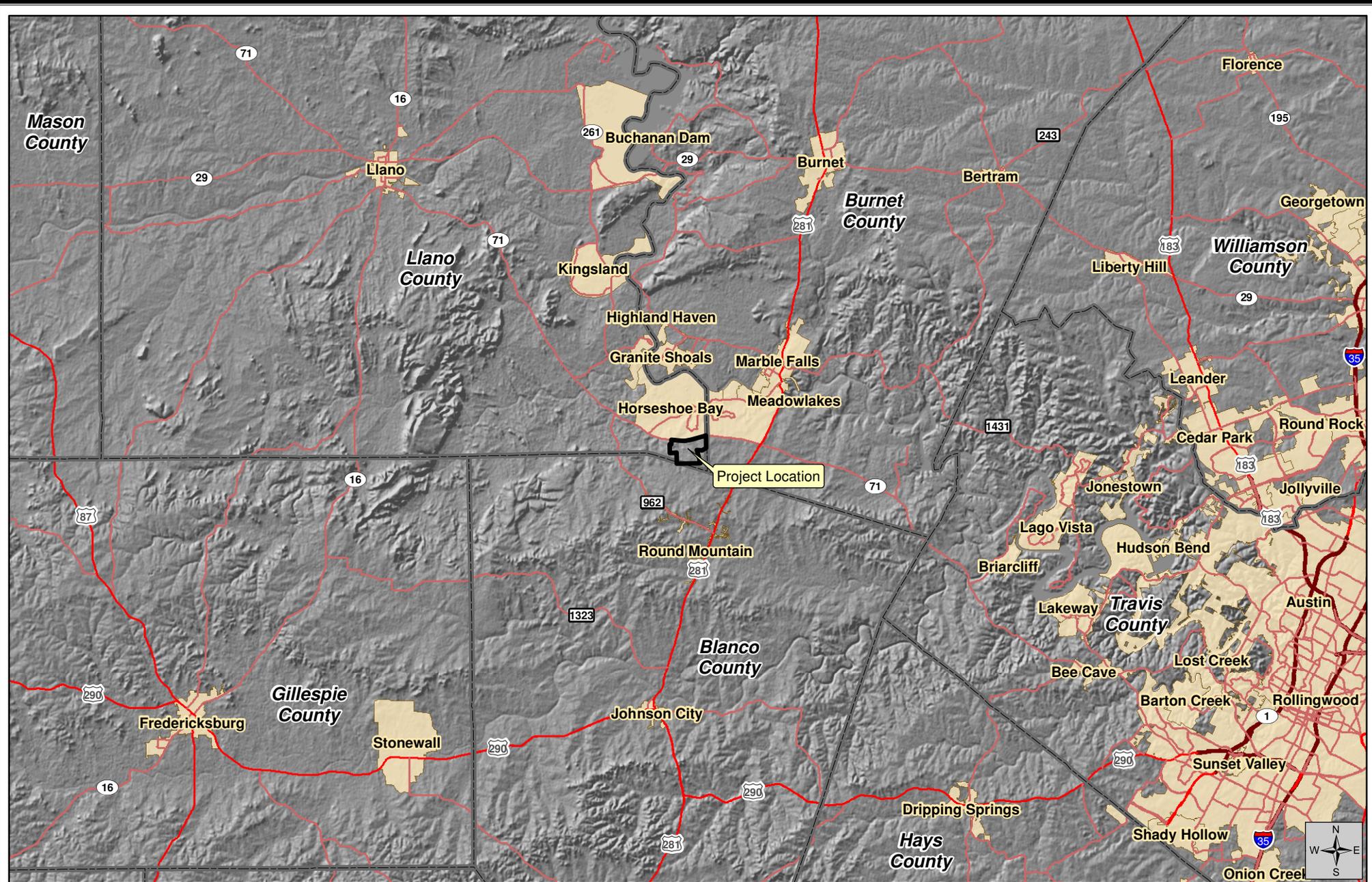
FLOODPLAIN MANAGEMENT: The USACE is sending a copy of this public notice to the local floodplain administrator. In accordance with 44 CFR part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), the floodplain administrators of participating communities are required to review all proposed development to determine if a floodplain development permit is required and maintain records of such review.

SOLICITATION OF COMMENTS: The public notice is being distributed to all known interested persons in order to allow the public an opportunity to comment on this bank proposal and to assist the USACE and other members of the IRT in developing the final MBI. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

PUBLIC HEARING: Prior to the close of the comment period any person may make a written request for a public hearing setting forth the particular reasons for the request. The District Engineer will determine whether the issues raised are substantial and should be considered in his permit decision. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before April 25, 2012, which is the close of the comment period. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to Mr. Eric Dephouse; Regulatory Branch, CESWF-PER-R; U. S. Army Corps of Engineers; Post Office Box 17300; Fort Worth, Texas 76102-0300. You may visit the Regulatory Branch in Room 3A37 of the Federal Building at 819 Taylor Street in Fort Worth between 8:00 A.M. and 3:30 P.M., Monday through Friday. Telephone inquiries should be directed to (817) 886-1733. Please note that names and addresses of those who submit comments in response to this public notice may be made publicly available.

DISTRICT ENGINEER
FORT WORTH DISTRICT
CORPS OF ENGINEERS



Location Map

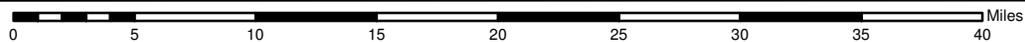
Middle Colorado Stream Mitigation Bank



Created By: Paul M. Jones
 Date: March 19, 2012
 CES Project No. 11-CES-160 Task 2.0

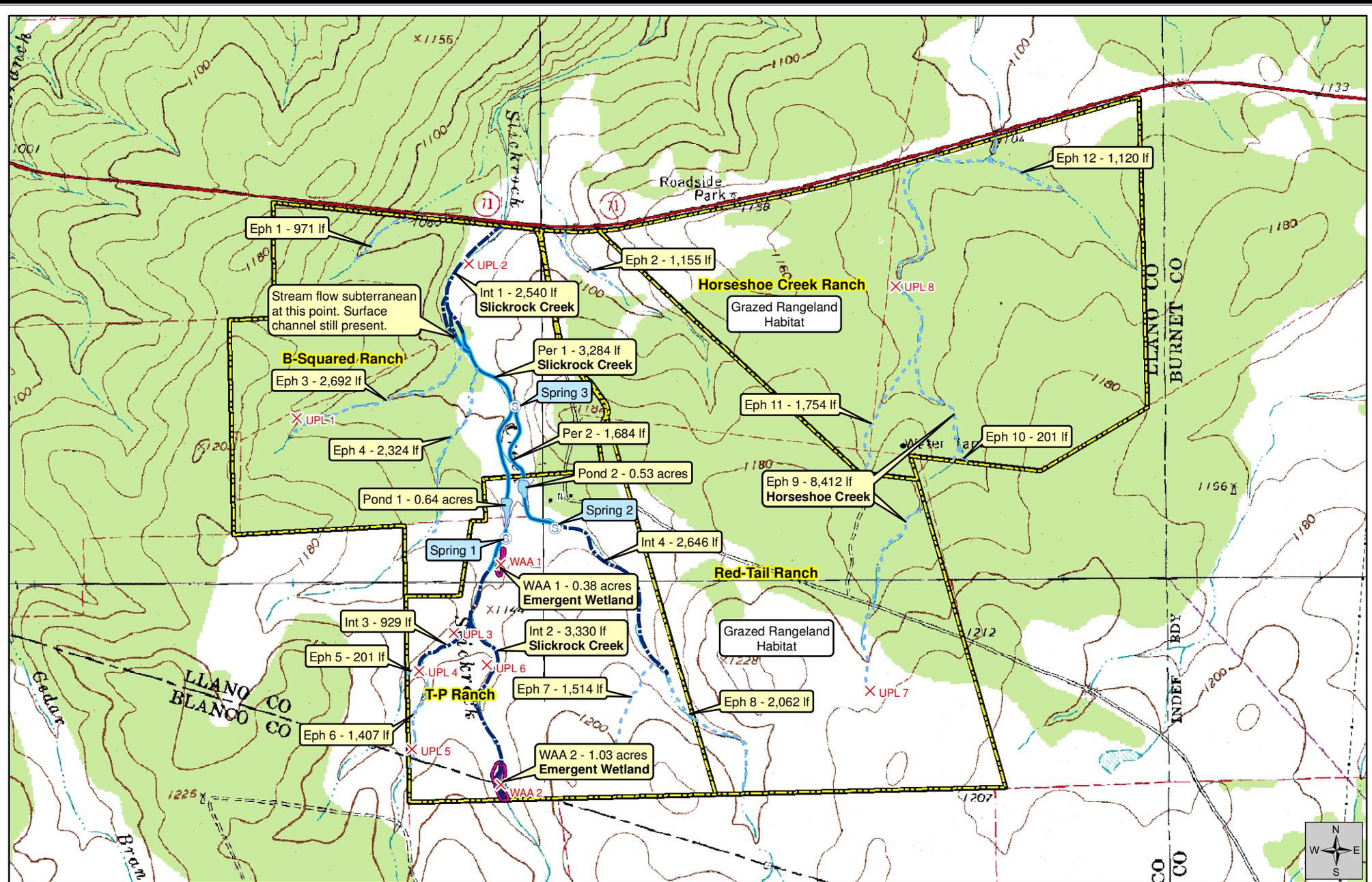
Mitigation Strategies, LLC
 Llano and Blanco Counties, Texas
 SWF-2012-00097

Datum: NAD83
 Imagery Source: ESRI
 Vector Source: CES & ESRI



- Interstate
- Primary Highway
- Secondary Highway
- Mitigation Bank Boundary (1,641 acres)
- City Limits
- County Limits





Waters of the U.S.
Topographic Map



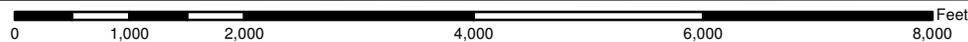
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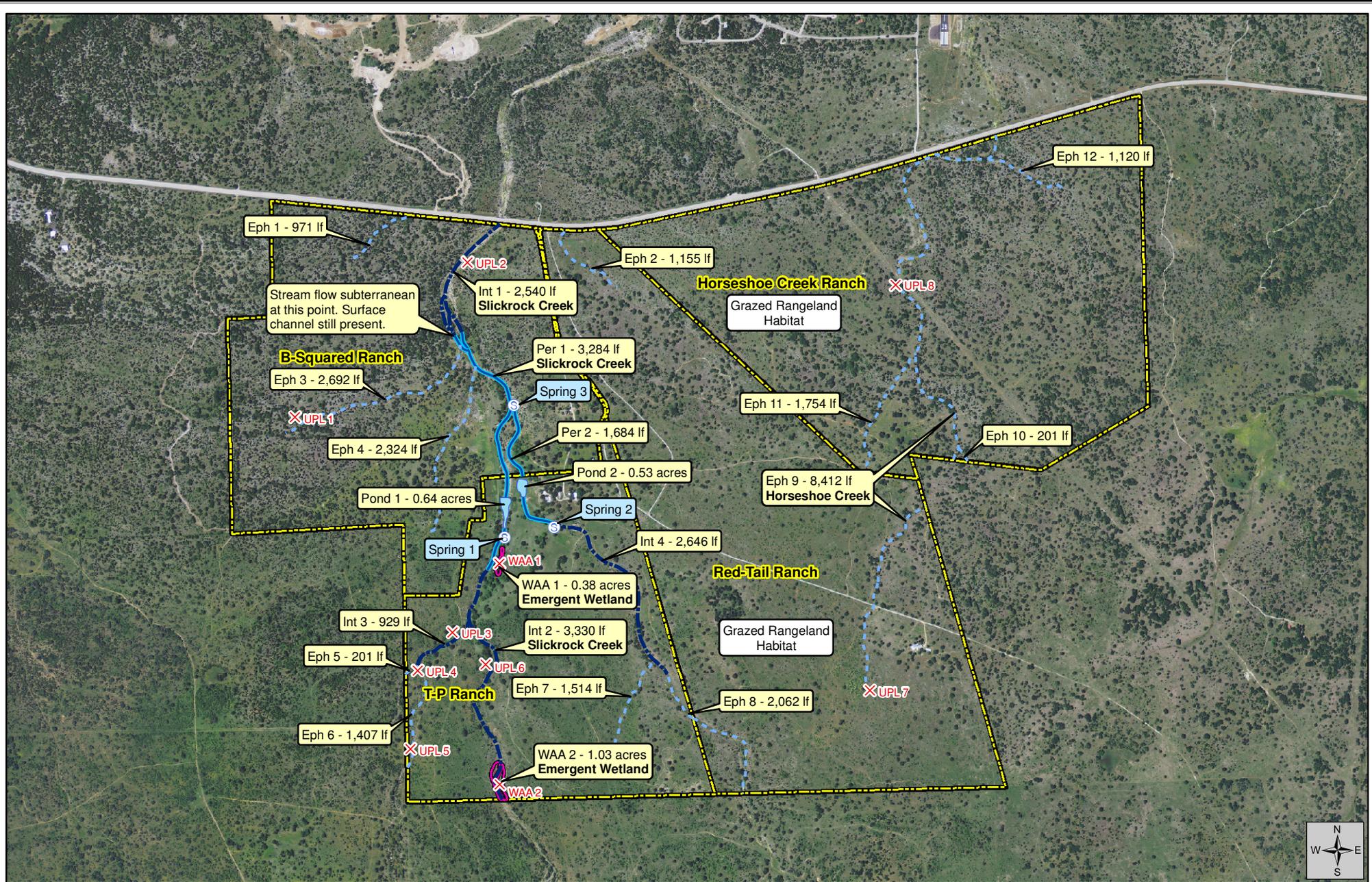
Middle Colorado Stream Mitigation Bank

Mitigation Strategies, LLC
Llano and Blanco Counties, Texas
SWF-2012-00097

Datum: NAD83
Imagery Source: USGS
Vector Source: CES

- ✕ Wetland Data Form
- ⊙ Springs
- ⊕ Impoundments (1.17 acres)
- ⋯ Ephemeral Streams (23,812 lf)
- ⋯ Intermittent Streams (9,445 lf)
- ⋯ Perennial Streams (4,968 lf)
- ⊕ Emergent Wetlands (1.41 acres)
- ⊕ Tract Boundaries (Total - 1,641 acres)





Waters of the U.S.
2010 Aerial Map

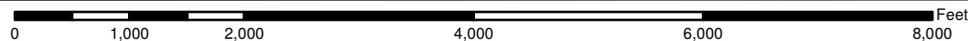
Middle Colorado Stream Mitigation Bank



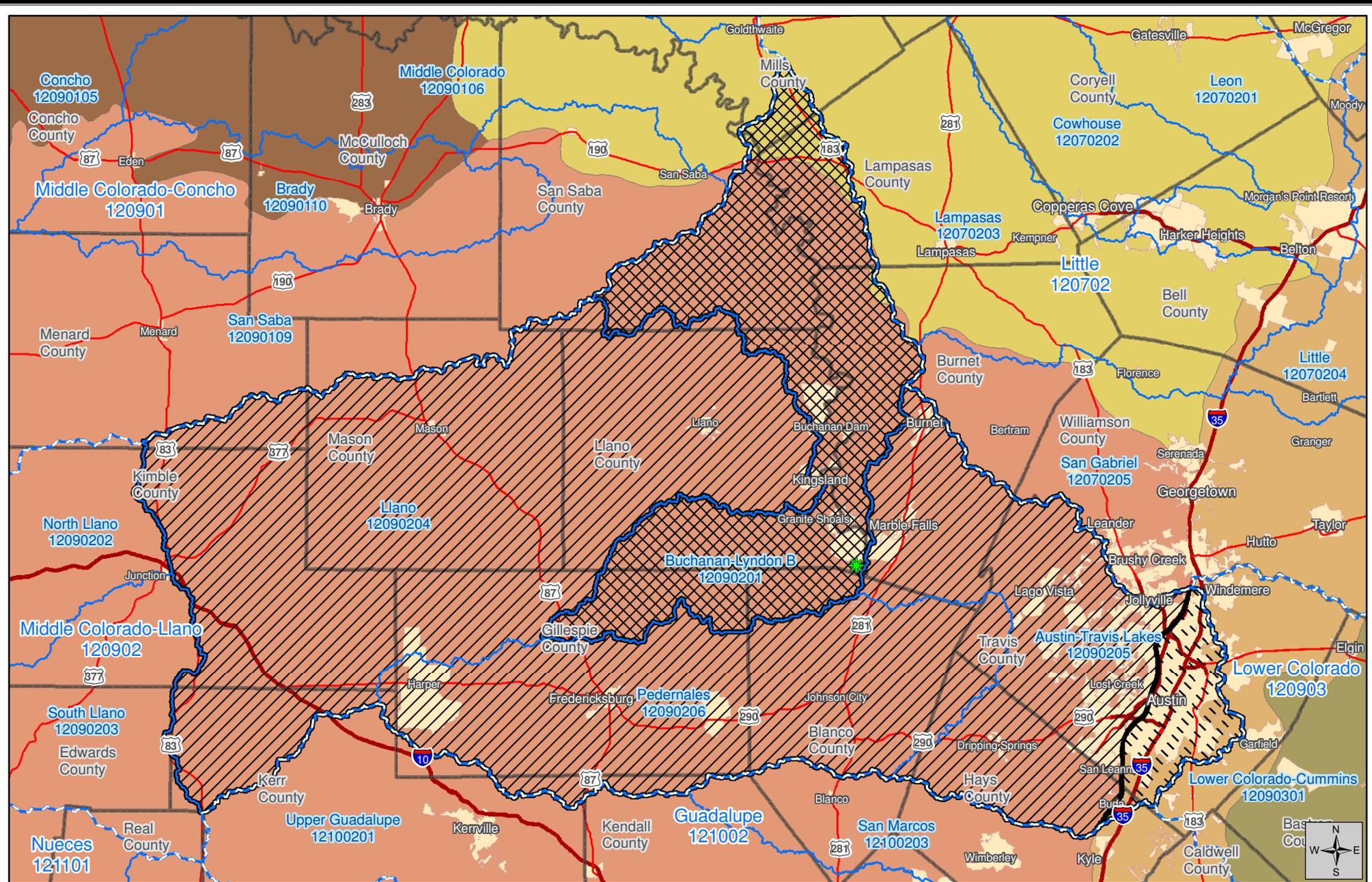
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Mitigation Strategies, LLC
Llano and Blanco Counties, Texas
SWF-2012-00097

Datum: NAD83
Imagery Source: NAIP
Vector Source: CES



- Wetland Data Form
- Springs
- Impoundments (1.17 acres)
- Ephemeral Streams (23,812 lf)
- Intermittent Streams (9,445 lf)
- Perennial Streams (4,968 lf)
- Emergent Wetlands (1.41 acres)
- Tract Boundaries (Total - 1,641 acres)



Service Area Map

Middle Colorado Stream Mitigation Bank



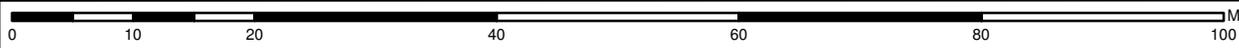
Created By: Neil Boitnott
Date: March 19, 2012
CES Project No. 11-CES-160 Task 2.0

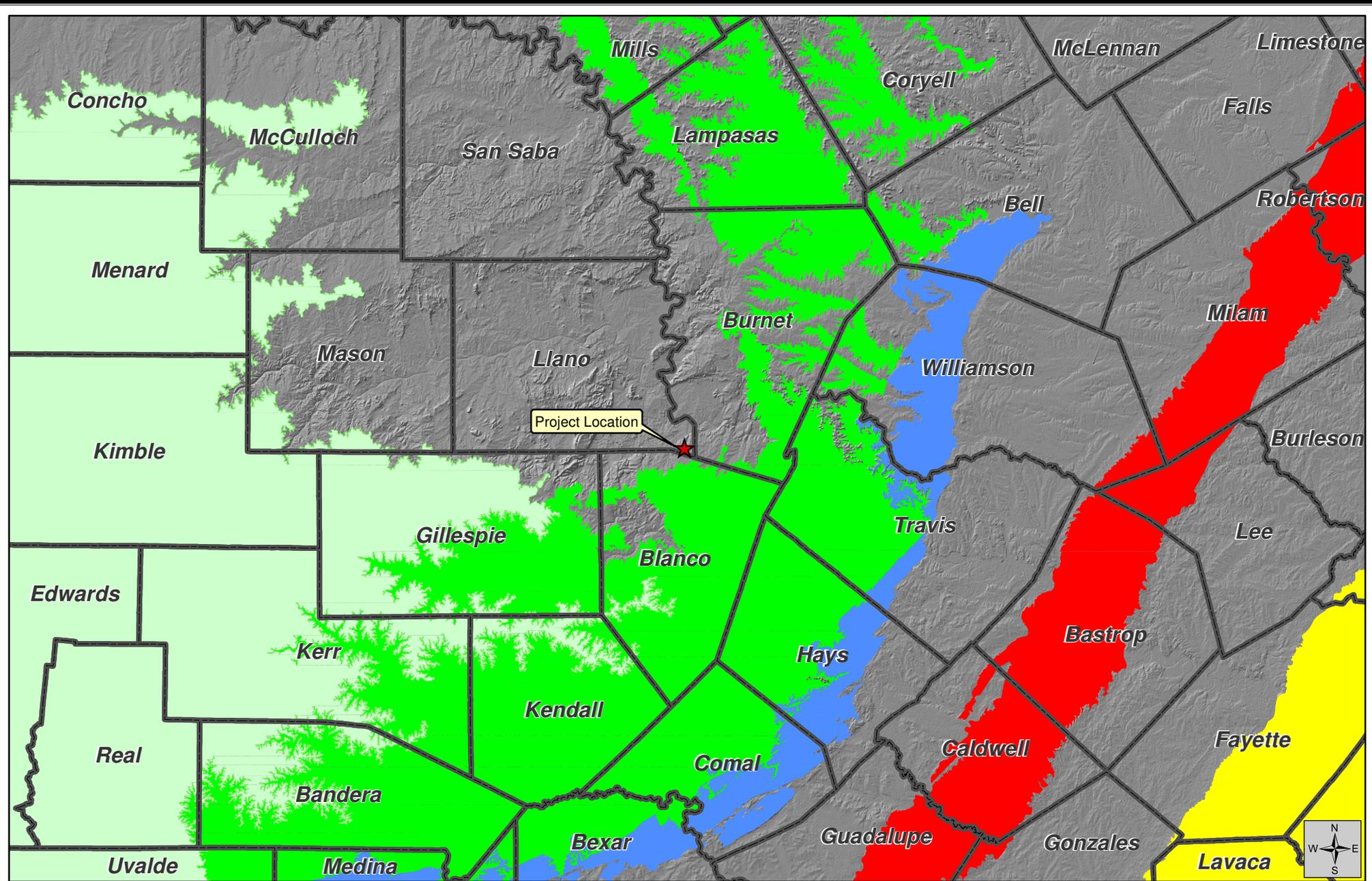
Mitigation Strategies, LLC
Llano and Blanco Counties, Texas

SWF-2012-00097

Datum: NAD83
Source: EPA, ESRI & USGS

- Bank Location
- Service Area**
 - Primary
 - Secondary
 - Tertiary
 - Basins (6-Digit)
 - Subbasins (8-Digit)
- Level III Ecoregions**
 - Central Great Plains
 - Cross Timbers
 - East Central Texas Plains
 - Edwards Plateau
 - Texas Blackland Prairies





Major Aquifers Map

Middle Colorado Stream Mitigation Bank

Date: March 20, 2012

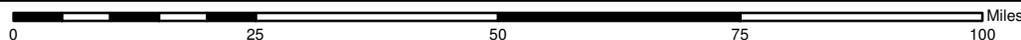


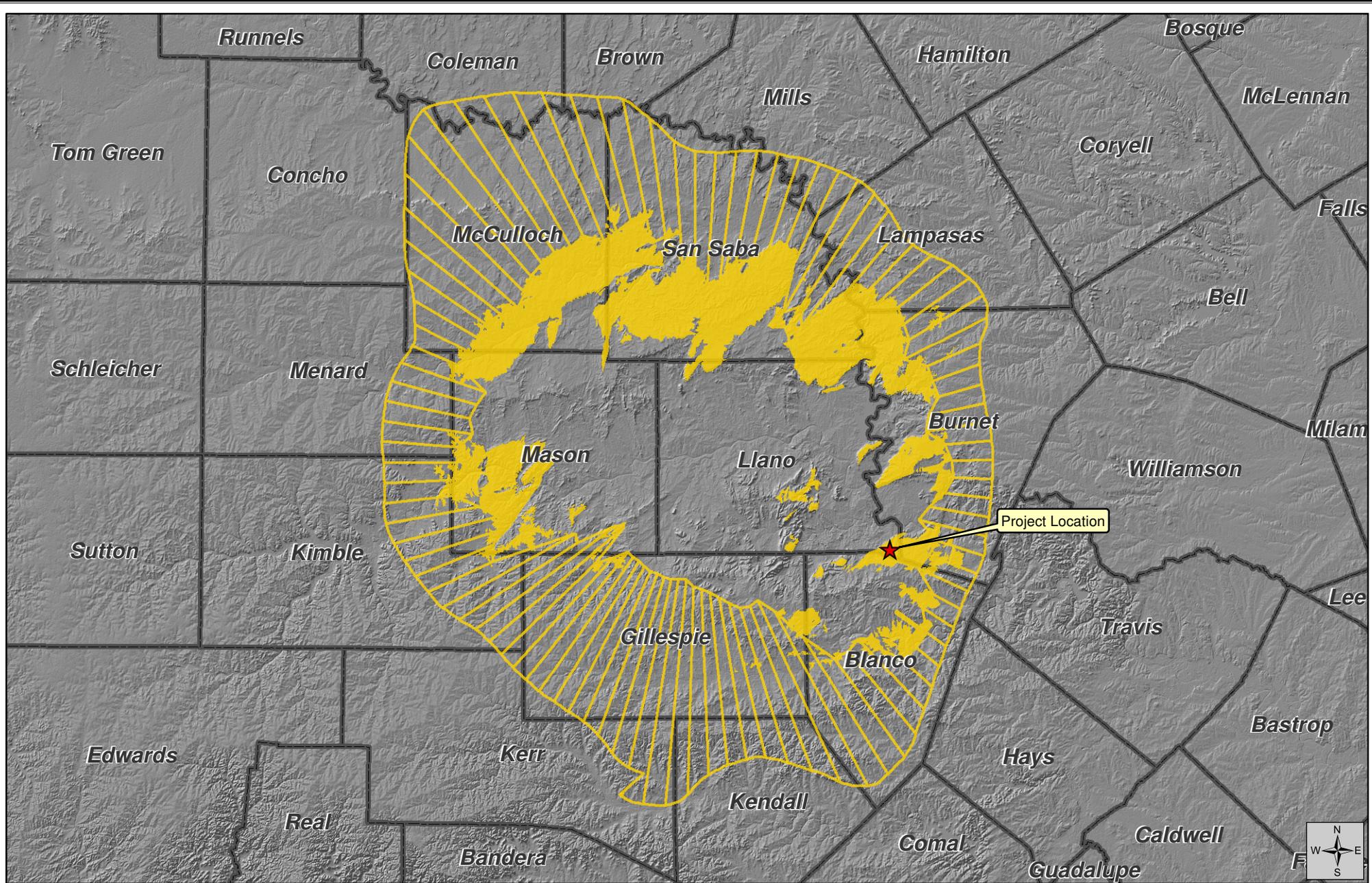
Created By:
Paul M. Jones
CES Project No. 11-CES-160 Task 2.0

Mitigation Strategies, LLC
Llano and Blanco Counties, Texas
SWF-2012-00097

Datum: NAD83
Imagery Source: ESRI
Vector Source: TWDB & CES

- ★ Project Location
- Major Aquifers**
- Gulf Coast
- Carrizo - Wilcox
- Edwards - Trinity Plateau
- Edwards BFZ
- Trinity





Minor Aquifers Map

Middle Colorado Stream Mitigation Bank

Date: March 20, 2012

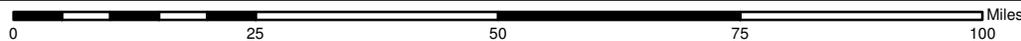


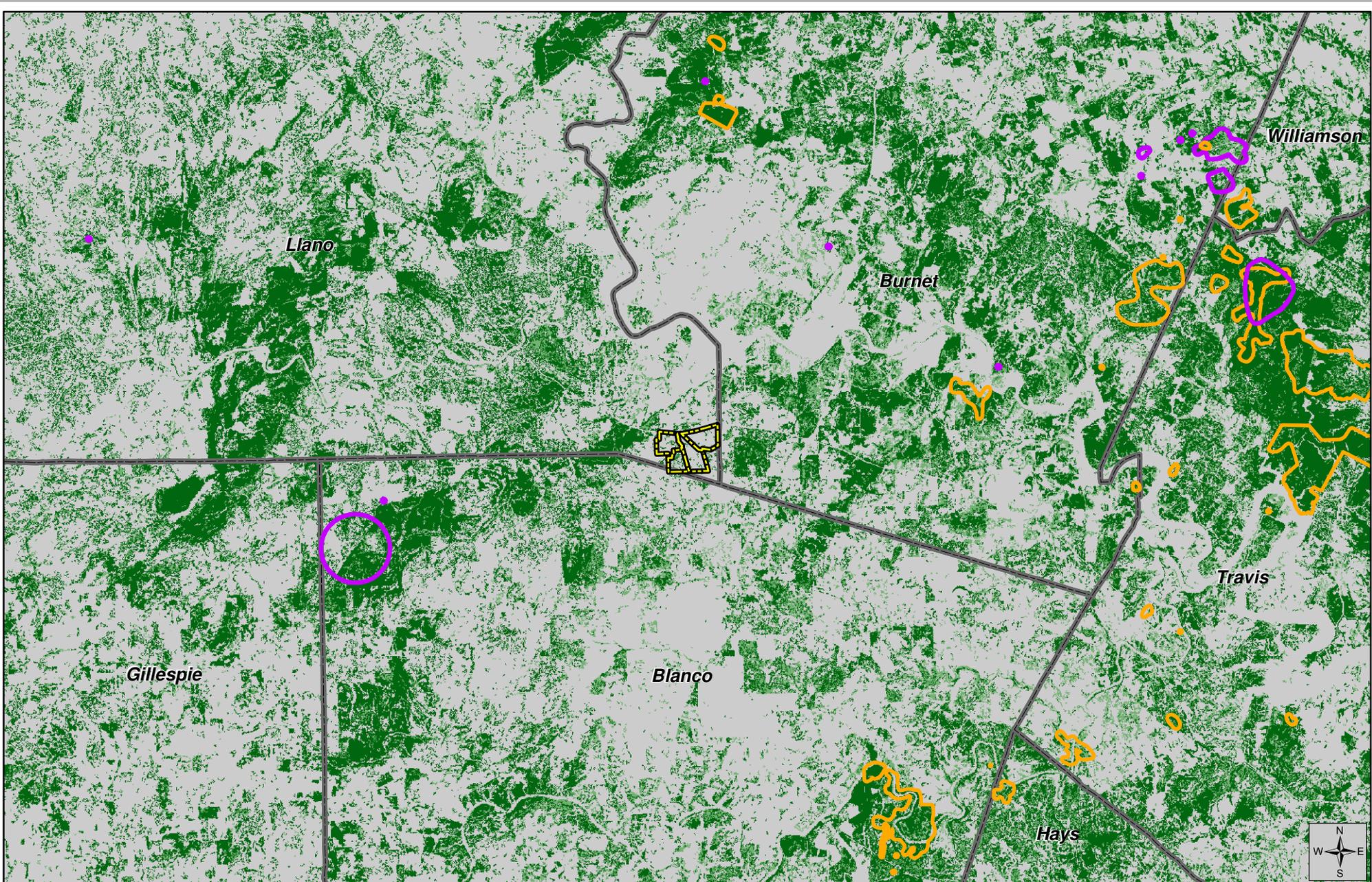
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Mitigation Strategies, LLC
Llano and Blanco Counties, Texas
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Datum: NAD83
Imagery Source: ESRI
Vector Source: TWDB & CES

- ★ Project Location
- Minor Aquifers**
- Ellenburger - San Saba (Outcrop)
- Ellenburger - San Saba (Subcrop)





T & E Species
Known Population Map

Middle Colorado Stream Mitigation Bank

CASTILAW
ENVIRONMENTAL SERVICES, LLC
NACOGDOCHES, TX 936-559-9591
SULPHUR SPRINGS, TX 903-885-0304

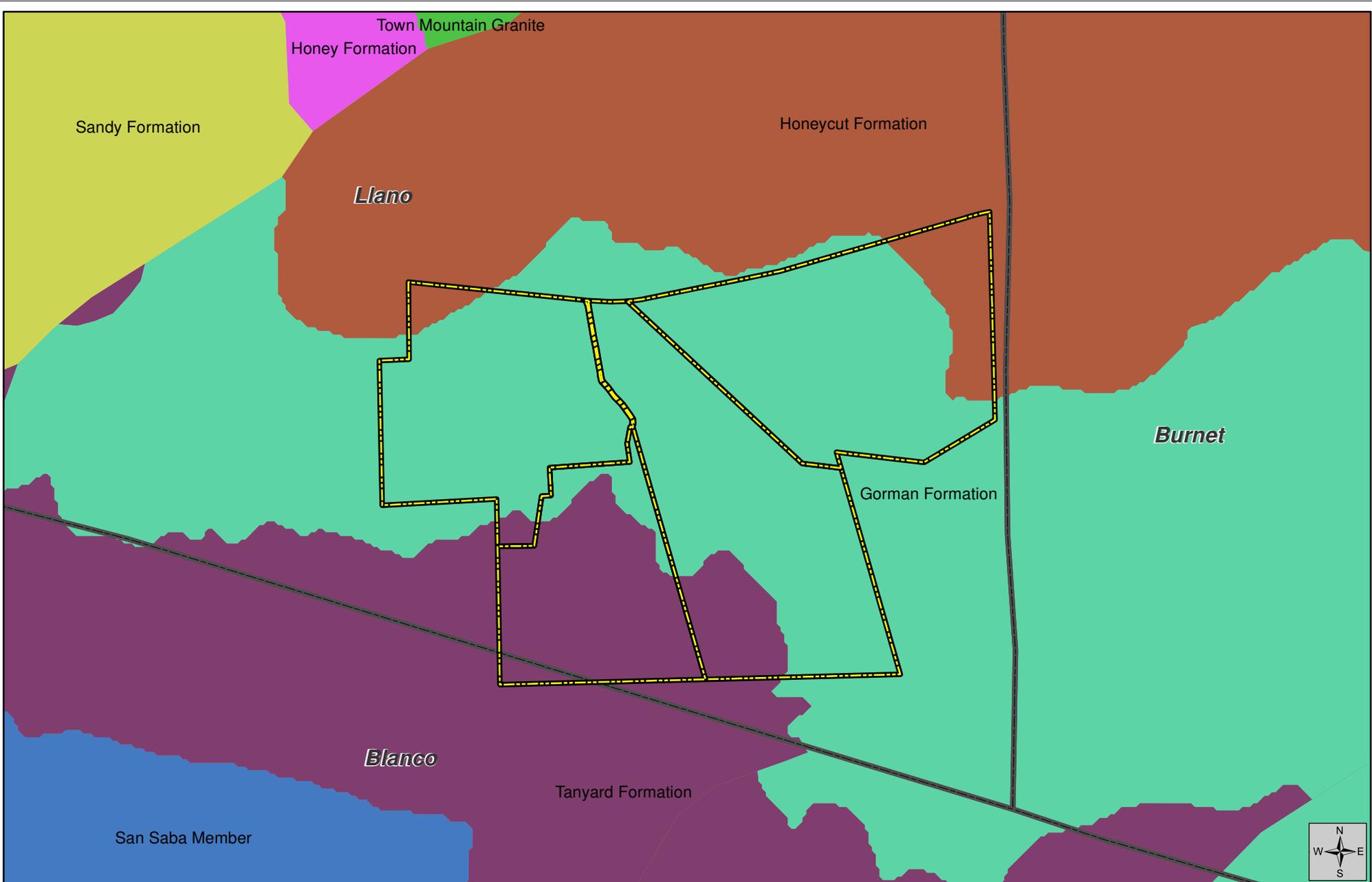
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Llano and Blanco Counties, Texas
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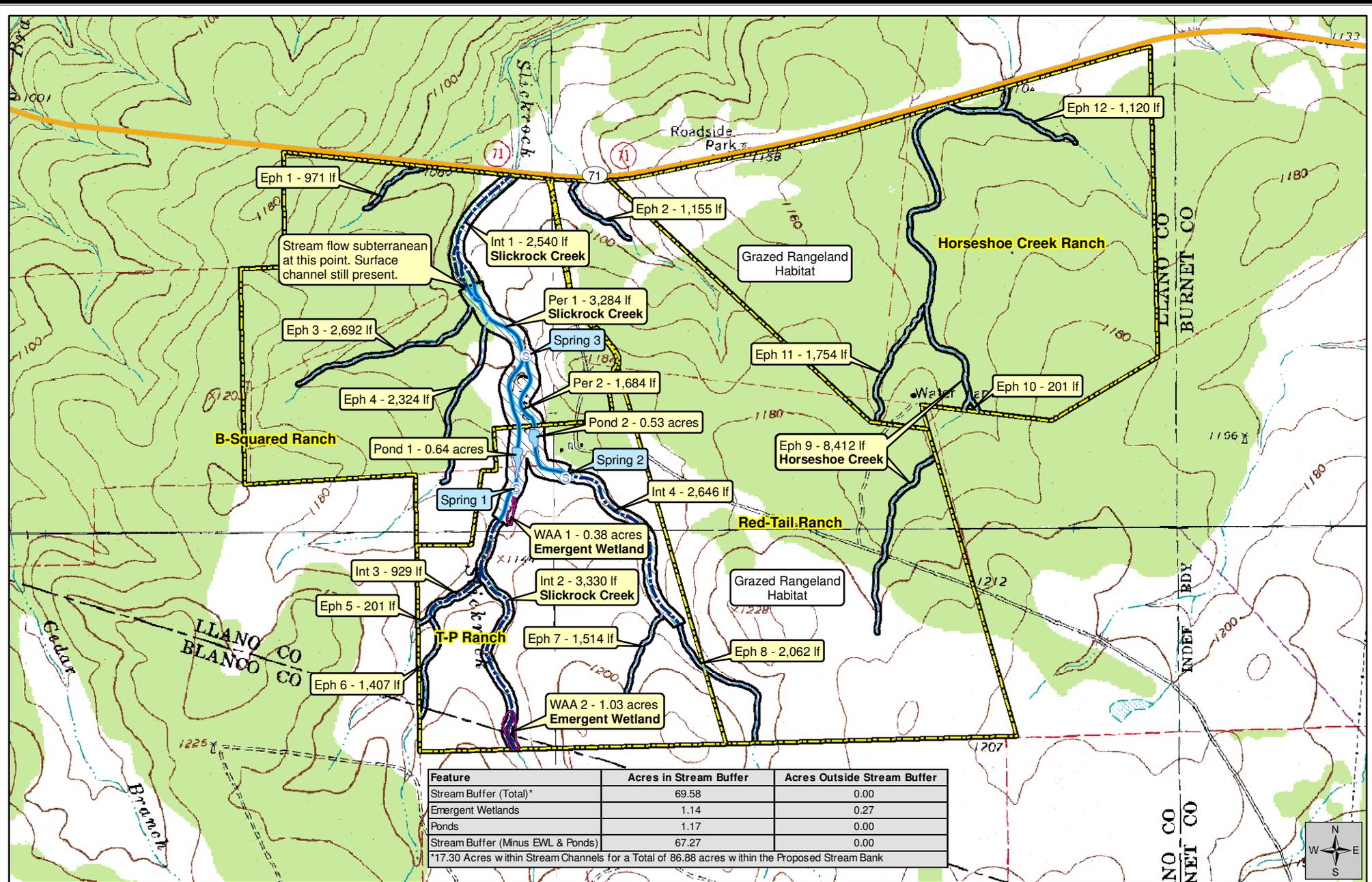
Datum: NAD83
Imagery Source: NLCD
Vector Source: CES & TNDD



- Tract Boundaries
- County Boundary
- Known Populations**
- Black-capped Vireo
- Golden-cheeked Warbler
- NLCD Habitat**
- Deciduous Forest
- Evergreen Forest



Geology Map	Middle Colorado Stream Mitigation Bank	Date: March 20, 2012
 <p>Created By: Neil Boitnott CES Project No. 11-CES-160 Task 2.0</p>	 <p>Mitigation Strategies, LLC Llano and Blanco Counties, Texas SWF-2012-00097</p>	<ul style="list-style-type: none"> Tract Boundaries County Limits <p>Geologic Units</p> <ul style="list-style-type: none"> Gorman Formation Honeycut Formation San Saba Member Honey Formation Tanyard Formation Sandy Formation Town Mountain Granite <p>Datum: NAD83 Imagery Source: USGS Vector Source: CES</p>



Feature	Acres in Stream Buffer	Acres Outside Stream Buffer
Stream Buffer (Total)*	69.58	0.00
Emergent Wetlands	1.14	0.27
Ponds	1.17	0.00
Stream Buffer (Minus EWL & Ponds)	67.27	0.00

*17.30 Acres within Stream Channels for a Total of 86.88 acres within the Proposed Stream Bank

TXRAM Assessment
Topographic Map

Middle Colorado Stream Mitigation Bank



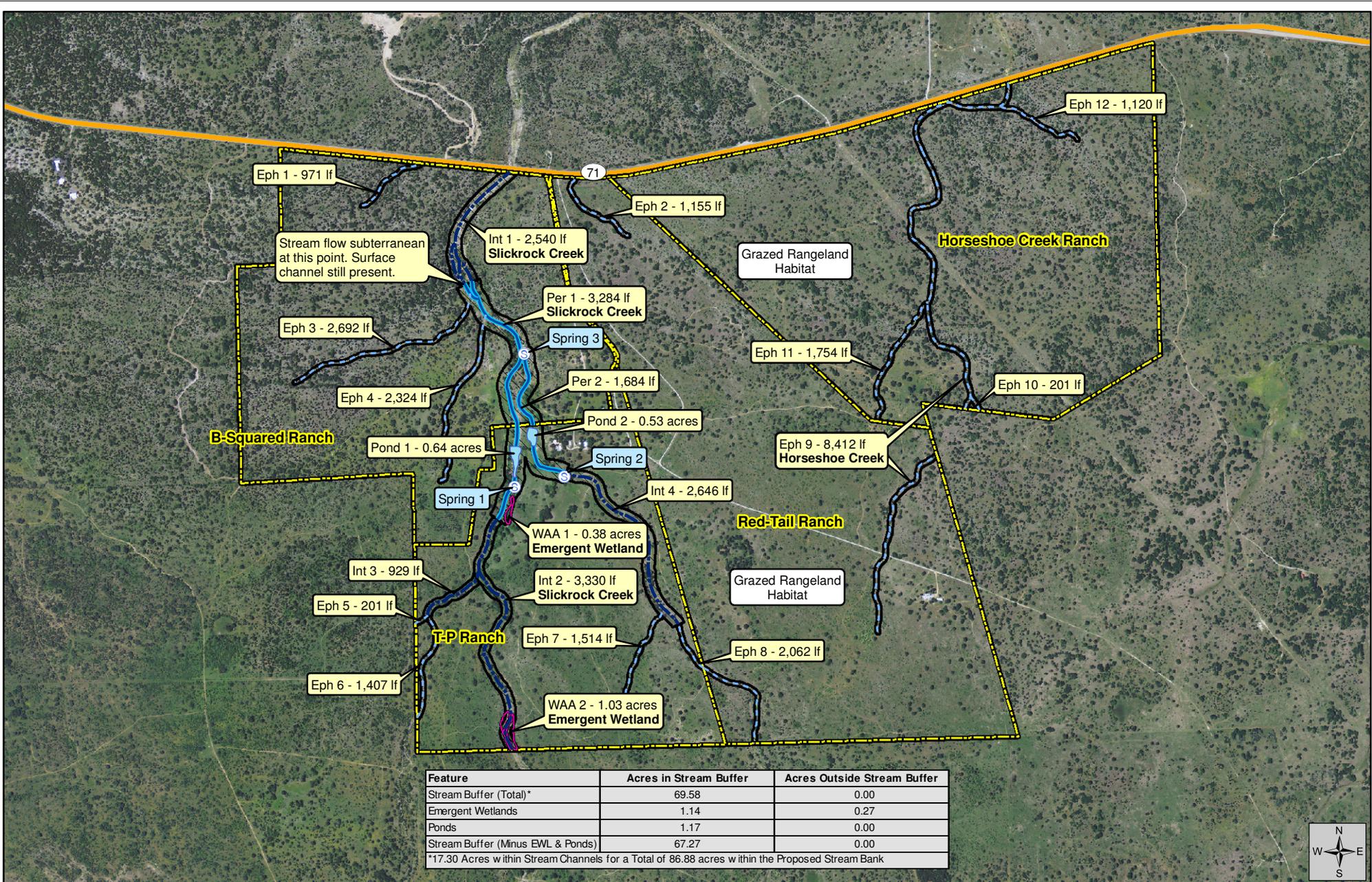
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Datum: NAD83
Imagery Source: USGS
Vector Source: CES



- Springs
- Ephemeral Streams (23,812 lf)
- Intermittent Streams (9,445 lf)
- Perennial Streams (4,968 lf)
- Impoundments (1.17 acres)
- Emergent Wetlands (1.41 acres)
- Stream Buffers (69.58 acres)
- Tract Boundaries (Total - 1,641 acres)



Feature	Acres in Stream Buffer	Acres Outside Stream Buffer
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*17.30 Acres within Stream Channels for a Total of 86.88 acres within the Proposed Stream Bank

TXRAM Assessment
2010 Aerial Map

Middle Colorado Stream Mitigation Bank

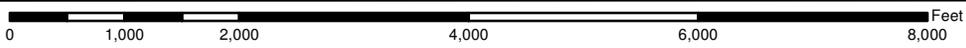


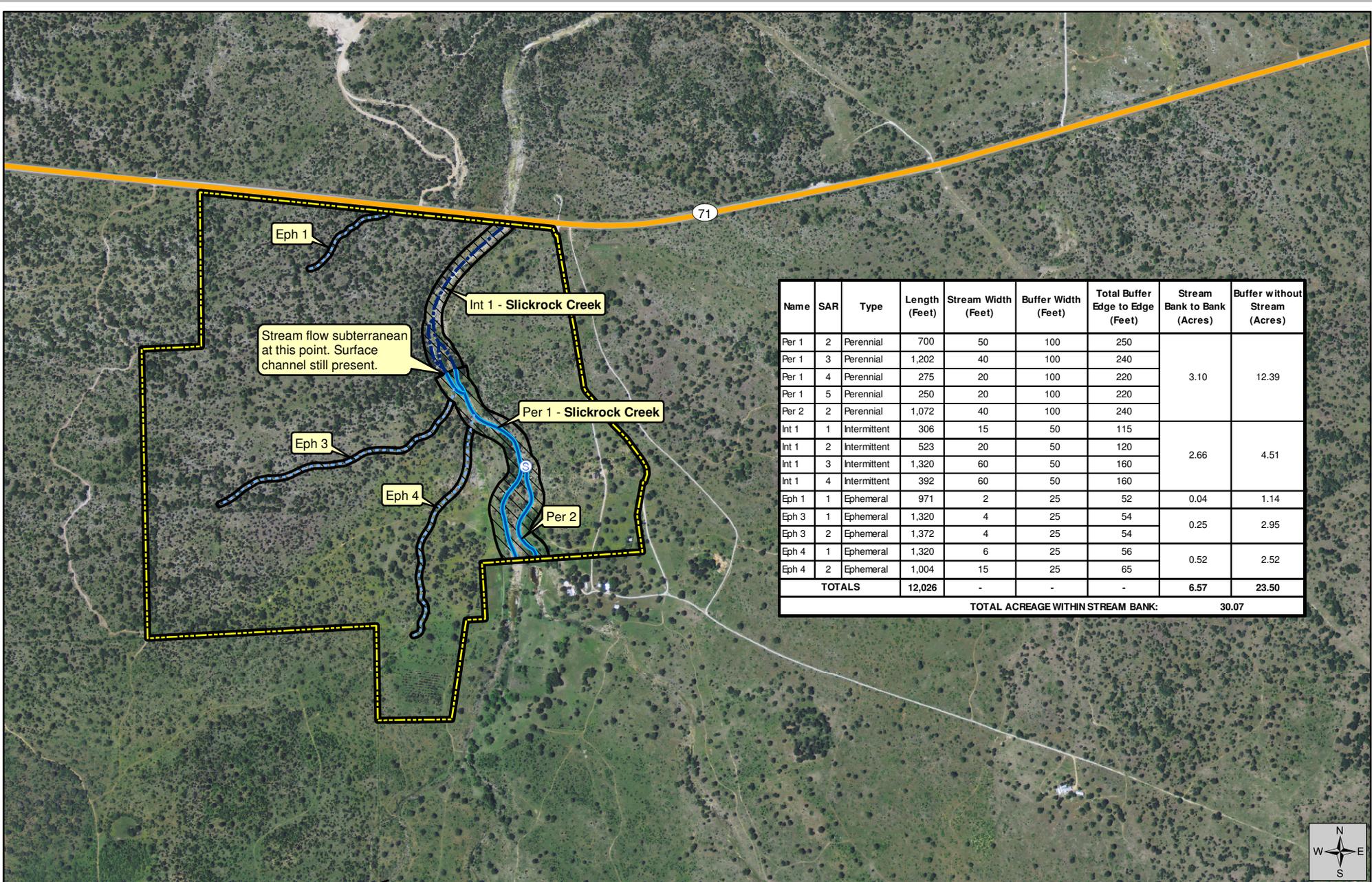
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Mitigation Strategies, LLC
Llano and Blanco Counties, Texas
SWF-2012-00097

Datum: NAD83
Imagery Source: NAIP
Vector Source: CES

- Springs
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- Perennial Streams (4,968 lf)
- Impoundments (1.17 acres)
- Emergent Wetlands (1.41 acres)
- Stream Buffers (69.58 acres)
- Tract Boundaries (Total - 1,641 acres)





Name	SAR	Type	Length (Feet)	Stream Width (Feet)	Buffer Width (Feet)	Total Buffer Edge to Edge (Feet)	Stream Bank to Bank (Acres)	Buffer without Stream (Acres)	
Per 1	2	Perennial	700	50	100	250	3.10	12.39	
Per 1	3	Perennial	1,202	40	100	240			
Per 1	4	Perennial	275	20	100	220			
Per 1	5	Perennial	250	20	100	220			
Per 2	2	Perennial	1,072	40	100	240			
Int 1	1	Intermittent	306	15	50	115	2.66	4.51	
Int 1	2	Intermittent	523	20	50	120			
Int 1	3	Intermittent	1,320	60	50	160			
Int 1	4	Intermittent	392	60	50	160			
Eph 1	1	Ephemeral	971	2	25	52	0.04	1.14	
Eph 3	1	Ephemeral	1,320	4	25	54	0.25	2.95	
Eph 3	2	Ephemeral	1,372	4	25	54			
Eph 4	1	Ephemeral	1,320	6	25	56	0.52	2.52	
Eph 4	2	Ephemeral	1,004	15	25	65			
TOTALS			12,026	-	-	-	6.57	23.50	
TOTAL ACREAGE WITHIN STREAM BANK:							30.07		



TXRAM Assessment
Individual Ranch Map

B-Squared Ranch - Middle Colorado Stream Mitigation Bank

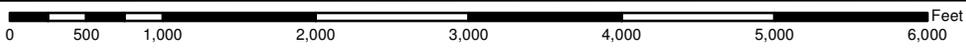


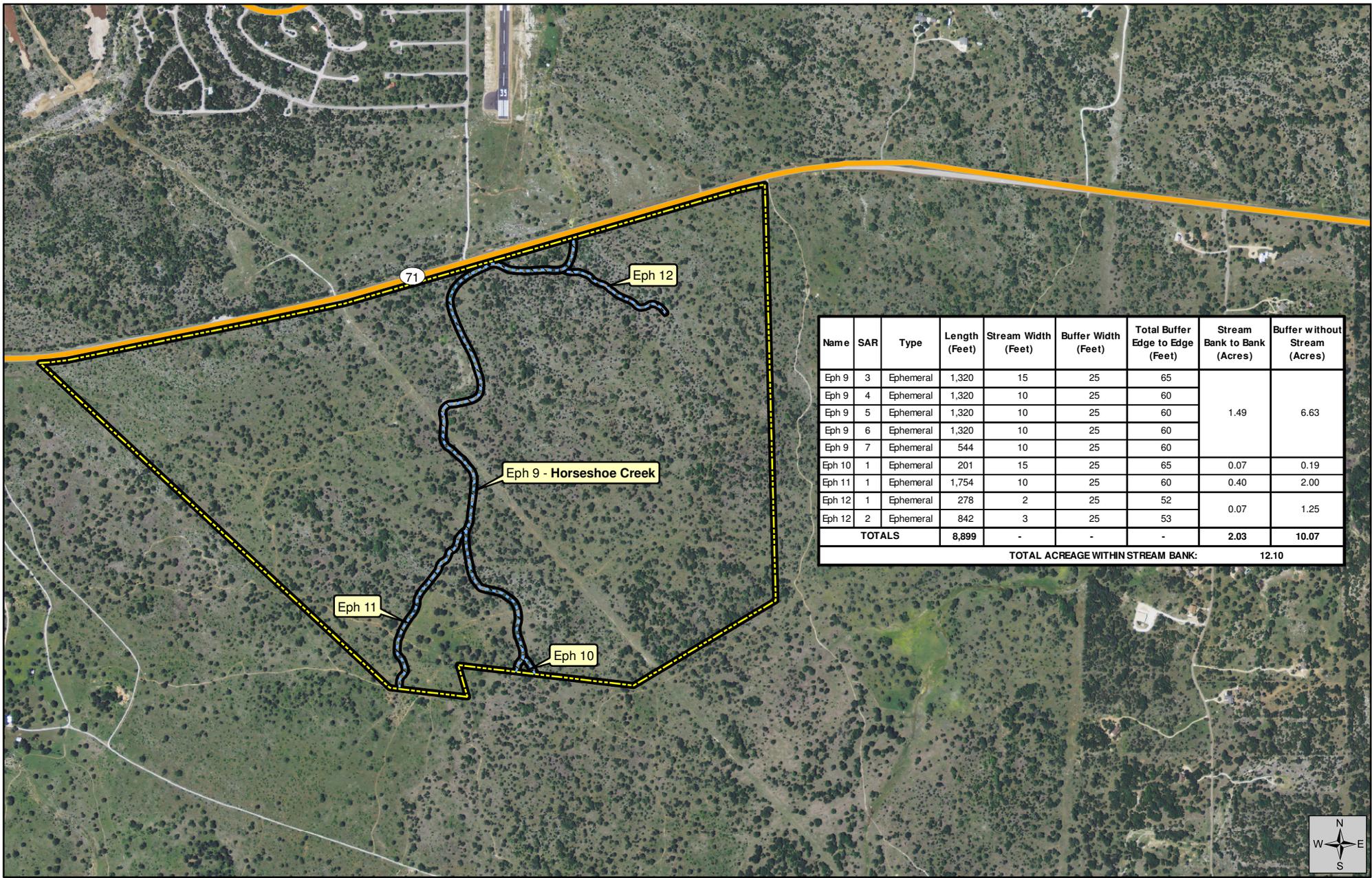
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Mitigation Strategies, LLC
Llano and Blanco Counties, Texas
SWF-2012-00097

Datum: NAD83
Imagery Source: NAIP
Vector Source: CES

- Spring
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Stream Buffer
- Tract Boundary (378 acres)





Name	SAR	Type	Length (Feet)	Stream Width (Feet)	Buffer Width (Feet)	Total Buffer Edge to Edge (Feet)	Stream Bank to Bank (Acres)	Buffer without Stream (Acres)		
Eph 9	3	Ephemeral	1,320	15	25	65	1.49	6.63		
Eph 9	4	Ephemeral	1,320	10	25	60				
Eph 9	5	Ephemeral	1,320	10	25	60				
Eph 9	6	Ephemeral	1,320	10	25	60				
Eph 9	7	Ephemeral	544	10	25	60				
Eph 10	1	Ephemeral	201	15	25	65			0.07	0.19
Eph 11	1	Ephemeral	1,754	10	25	60			0.40	2.00
Eph 12	1	Ephemeral	278	2	25	52	0.07	1.25		
Eph 12	2	Ephemeral	842	3	25	53				
TOTALS			8,899	-	-	-	2.03	10.07		
TOTAL ACREAGE WITHIN STREAM BANK:								12.10		

TXRAM Assessment
Individual Ranch Map

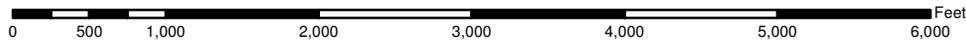
Horseshoe Creek Ranch - Middle Colorado Stream Mitigation Bank



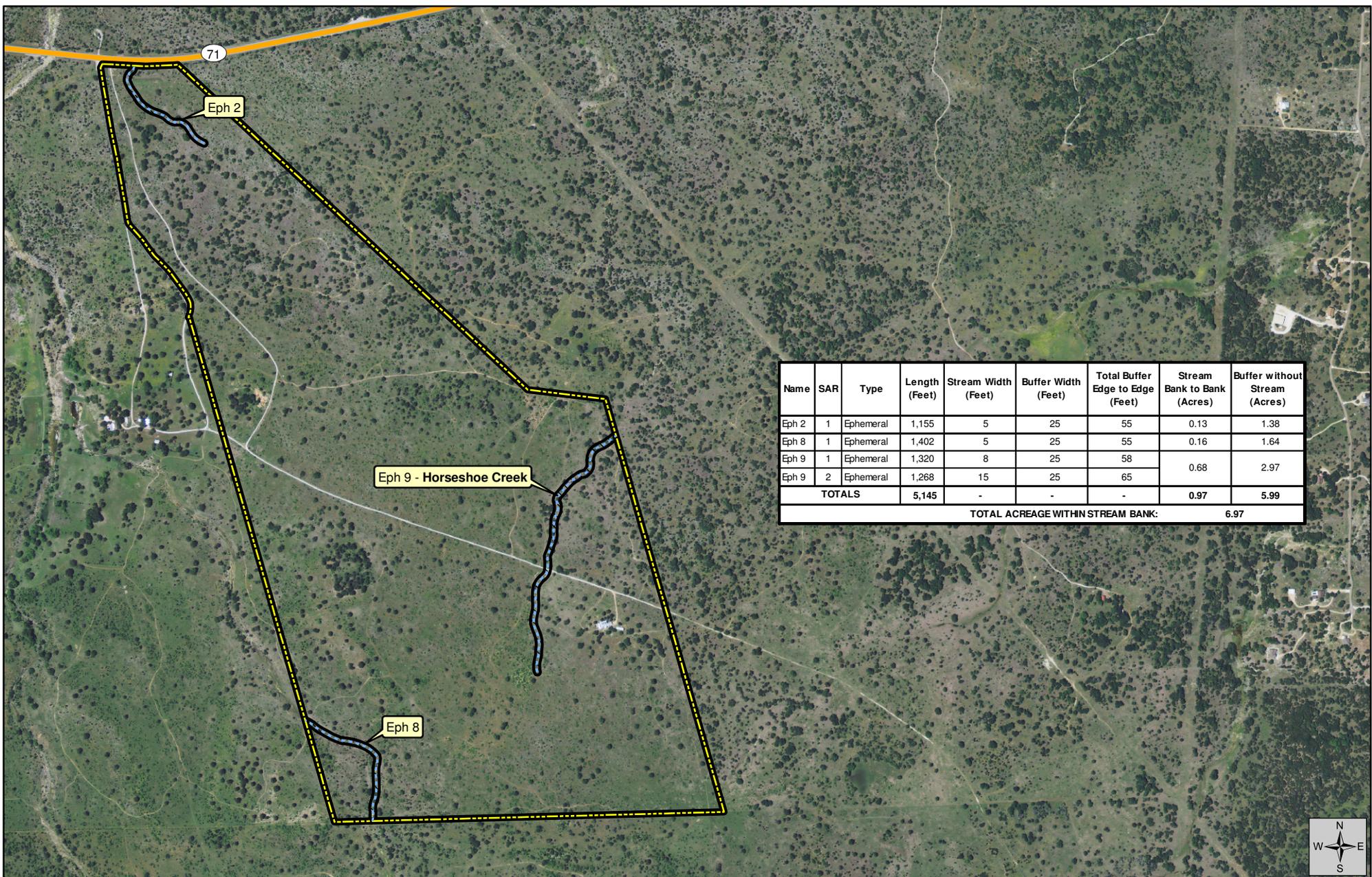
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Mitigation Strategies, LLC
Llano and Blanco Counties, Texas
SWF-2012-00097

Datum: NAD83
Imagery Source: NAIP
Vector Source: CES



-  Ephemeral Stream
-  Stream Buffer
-  Tract Boundary (483 acres)



Name	SAR	Type	Length (Feet)	Stream Width (Feet)	Buffer Width (Feet)	Total Buffer Edge to Edge (Feet)	Stream Bank to Bank (Acres)	Buffer without Stream (Acres)	
Eph 2	1	Ephemeral	1,155	5	25	55	0.13	1.38	
Eph 8	1	Ephemeral	1,402	5	25	55	0.16	1.64	
Eph 9	1	Ephemeral	1,320	8	25	58	0.68	2.97	
Eph 9	2	Ephemeral	1,268	15	25	65			
TOTALS			5,145	-	-	-	0.97	5.99	
TOTAL ACREAGE WITHIN STREAM BANK:								6.97	

TXRAM Assessment
Individual Ranch Map

Red-Tail Ranch - Middle Colorado Stream Mitigation Bank



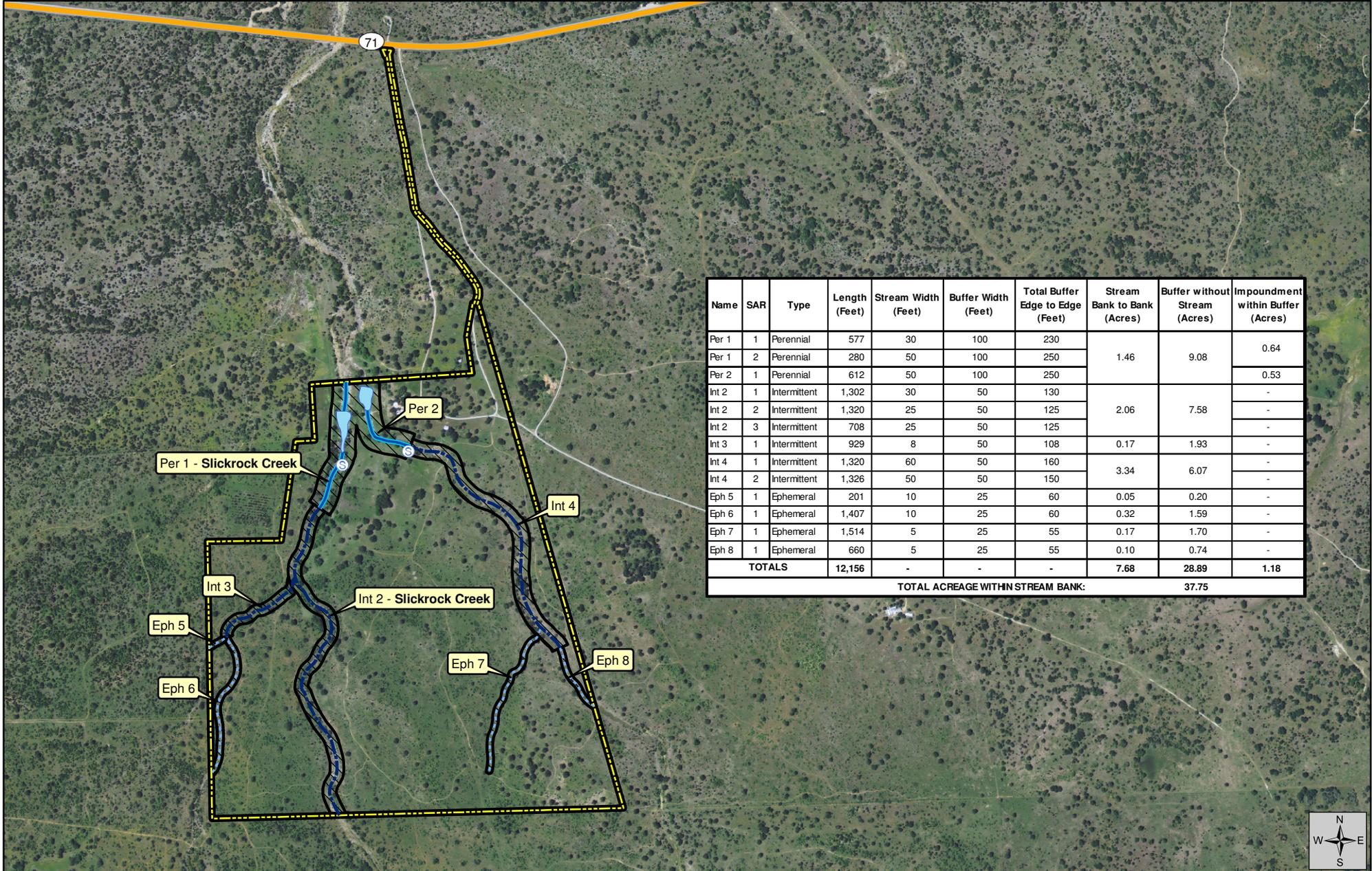
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-  Stream Buffer
-  Tract Boundary (486 acres)



Name	SAR	Type	Length (Feet)	Stream Width (Feet)	Buffer Width (Feet)	Total Buffer Edge to Edge (Feet)	Stream Bank to Bank (Acres)	Buffer without Stream (Acres)	Impoundment within Buffer (Acres)
Per 1	1	Perennial	577	30	100	230	1.46	9.08	0.64
Per 1	2	Perennial	280	50	100	250			0.53
Per 2	1	Perennial	612	50	100	250	2.06	7.58	-
Int 2	1	Intermittent	1,302	30	50	130			-
Int 2	2	Intermittent	1,320	25	50	125			-
Int 2	3	Intermittent	708	25	50	125	0.17	1.93	-
Int 3	1	Intermittent	929	8	50	108			-
Int 4	1	Intermittent	1,320	60	50	160	3.34	6.07	-
Int 4	2	Intermittent	1,326	50	50	150			-
Eph 5	1	Ephemeral	201	10	25	60	0.05	0.20	-
Eph 6	1	Ephemeral	1,407	10	25	60	0.32	1.59	-
Eph 7	1	Ephemeral	1,514	5	25	55	0.17	1.70	-
Eph 8	1	Ephemeral	660	5	25	55	0.10	0.74	-
TOTALS			12,156	-	-	-	7.68	28.89	1.18
TOTAL ACREAGE WITHIN STREAM BANK:								37.75	

TXRAM Assessment
Individual Ranch Map

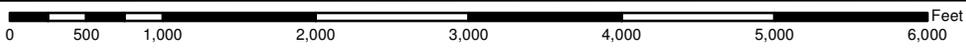
T-P Ranch - Middle Colorado Stream Mitigation Bank



Created By: Paul M. Jones
Date: March 20, 2012
CES Project No. 11-CES-160 Task 2.0

Mitigation Strategies, LLC
Llano and Blanco Counties, Texas
SWF-2012-00097

Datum: NAD83
Imagery Source: NAIP
Vector Source: CES



- Spring
- Ephemeral Stream
- Intermittent Stream
- Perennial Stream
- Impoundment
- Stream Buffer
- Tract Boundary (294 acres)