



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

Public Notice

Applicant: San Antonio River Authority

Permit Application No.: SWF-2013-00533

Date: December 18, 2015

Purpose

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 (USACE) 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 Act 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: Brent Jasper, Project Manager

Phone Number: (817) 886-1733

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 establish the Nani Falcone Park Mitigation Bank (NFPMB or Bank), a stream mitigation bank located in the city of San Antonio, Bexar County, Texas.

APPLICANT: San Antonio River Authority
100 East Guenther Street
San Antonio, Texas 78204
POC: Ms. LeeAnne Lutz

APPLICATION NUMBER: SWF-2013-00533

DATE ISSUED: December 18, 2015

LOCATION: The proposed Bank is located along French Creek in the Nani Falcone Park in northwest San Antonio (Figure 1). The Bank is located on the west side of Bandera Road north of Guilbeau Road. The approximate center of the Bank is located at latitude 29.5237° North and longitude -98.6458° West on the Helotes 7.5-minute USGS quadrangle maps (Figure 2). The Bank is located on both sides of French Creek within the Medina River Basin (HUC 12100302) and the Texas Blackland Prairie EPA Level III Ecoregion (Omernik, 2004) (Figure 3). The property encompasses 68 acres, of which approximately 19 acres would be included in the Bank.

PROJECT DESCRIPTION: The goal of the proposed Bank is to restore hydrologic, hydraulic, geomorphic, and biological functions to stream and riparian ecosystems within the project boundary (Figure 4). Approximately 2,258 linear feet of ephemeral stream and 5,156 linear feet of intermittent stream will be restored as part of the proposed project. The project hydrologic objectives are to restore natural ephemeral and intermittent flow to segments of relic channel that have been abandoned; and increase frequency and duration of ponding in intermittent pools. The hydraulic objectives are to improve floodplain connectivity; and restore the groundwater/surface water interaction to degraded stream systems. Geomorphic objectives include: to reduce bank erosion and improve lateral channel stability; improve bedform diversity; increase the width and composition of riparian buffer; and restore native and appropriate vegetation communities to improve channel stability. Biological objectives include: to increase the quantity and quality of aquatic and riparian habitat; increase the quantity and duration of ponding in pool habitats; and promote native riparian species and control invasive species.

The primary objective of the mitigation approach and restoration design is to construct stable streams and riparian systems that restore, to the extent practical, historical functions that have been lost from the site. The restoration strategy applied would involve the redesign of the current overly widened and channelized flood control channels that currently exist on the Bank to stable Rosgen C or Bc (unincised) stream types.

As part of the stream restoration designs along the degraded streams, channel dimensions would be adjusted to reduce velocities and near-bank shear stress, to provide a pilot channel designed to convey bank full flows and aquatic life functions, and allow more natural overbank flooding. Due to channel slopes, bed material composition, and ephemeral/intermittent hydrology of the channels, the streams would be designed as either Rosgen C- or Bc-type channels, which are common for this region of Texas.

A reach of French Creek within the Bank would be reconnected to its historic location by reconnecting the stream with a relic channel feature that is still present. Flows of approximately a two-year return period or lower would be restored to the relic channel feature, while flows in excess of the two-year flow would route through the existing flood control channel. A weir structure would be constructed at the confluence of the relic channel and the existing French Creek flood control channel to allow flows exceeding the approximate two-year return to access the existing flood control channel. Under this design approach, aquatic and habitat functions would be restored to the relic channel segment, while the existing flood control channel would function as part of the French Creek floodplain to ensure flood zone functions upstream and downstream of Bank remain unimpacted.

Within the relic French Creek channel reach, in-stream structures such as cross vanes would be constructed in several key locations to prevent future incision and head-cutting, while also enhancing aquatic habitat and pool habitat. Areas of eroding banks within the relic channel would be also be stabilized as part of the restoration design. After restoration, the existing flood control channel of French Creek would typically convey storm events in excess of the 2-year return. A low flow channel would be restored, and ephemeral/intermittent pools would be constructed downstream of in stream structures, such as cross vanes, rock vanes, and constructed riffles, to increase the quality and amount of aquatic habitat (Figures 5, 6, & 7).

In the lower half of French Creek through the Bank (south of the existing greenway crossing), a stable bankfull/pilot channel would be restored within the existing overly widened flood control channel. The bankfull channel would be sized appropriately to carry the approximate 1.5 – 2.0 year storm event, with larger events spilling onto the adjacent floodplain. Due to the low overall slope of the reach, instream structures would be incorporated primarily to promote scour and pool habitat, with the goal of restoring in-channel perennial pools for improved habitat. Riparian buffer vegetation would be restored along the reach, with the portion of the existing flood control channel to the east (outside of the protected riparian zone for mitigation) left in herbaceous vegetation to provide capacity for flood flows.

The Texas Rapid Assessment Method (TXRAM) would be used as the conditional assessment and credit generation mechanism for the NFPMB.

The site has undergone significant alteration during the period of available historic aerial photography. Earliest available aerial photographs date to 1977 when lands to the east and west of French Creek were under agricultural production as cultivated fields. Intermittent reaches of French Creek and UT3 are clearly visible on aerial photographs from this time period, but follow courses that are different than their current locations. At that time, the confluence of French Creek and UT3 was located below what is now Guilbeau Road, and the two streams ran along a parallel course along the southern portion of the project area. The land to the west of UT3 appears to have been open range land with no development or agricultural lands.

Between 1973 and 1986, a dramatic increase in residential development occurred in the surrounding watershed, and aerial photographs dating to 1985 show the relocation and widening of the southern end of French Creek on the project site, as well as the channelization of UT3 to its current location that cuts across the site to its current confluence with French Creek. At this time, the upper portion of French Creek still followed the historic alignment along the northern end of the Site.

In 2004, the northern end of French Creek was channelized to the east of its historic alignment, and all of UT3 within the project Site was also channelized, for flood control purposes. Development of the current Nani Falcone Park facilities also began in late 2004. Over the following years until the current date, the aerial photographic record indicates that maintenance of the channelized portions of French Creek and UT3 within the site have occurred at least one additional time, presumably to address scour and channel instability issues on the site (Figure 8).

Within the park boundaries, the soils of the historic alignment of French Creek are mapped primarily as Tinn and Frio soils that are frequently flooded and have a 0 to 1 percent slope. These soils are found on floodplains, are frequently flooded, and have a high available water capacity. With the new alignment of French Creek that was cut when the flood control channel was created, the current alignment flows through a portion of Lewisville silty clay in the northeast corner. These soils are found on stream terraces and have a low frequency of flooding and high available water capacity. The unnamed tributary UT3 also flows through areas mapped as Lewisville soils (Figure 9).

A majority of both French Creek and UT3 that are proposed for mitigation are devoid of any woody vegetation and consist of mowed and maintained grass areas. Both streams in their current condition are maintained flood control channels with mostly herbaceous vegetation that is periodically mowed. Stands of native canopy trees are located to the west of French Creek and may be incorporated into the mitigation design by relocating the pilot/bankfull channel closer to this stand of trees.

The maintained urban park comprises approximately 60 percent of the property. The primary vegetation that was observed included: bermudagrass (*Cynodon dactylon*), King Ranch bluestem (*Bothriochloa ischaemum*), hairy grama (*Bouteloua hirsutum*), and Paspalum species.

The riparian forest comprises approximately 20 percent of the property. The herbaceous layer in this community primarily consists of Buckley's yucca (*Yucca constricta*), mealy sage (*Salvia farinacea*), tropical sage (*S. coccinea*), Virginia wildrye (*Elymus virginicus*), and frostweed (*Verbesina virginica*). The shrub/sapling layer in this community consists primarily of whitebrush (*Aloysia gratissima*), yaupon (*Ilex vomitoria*), western soapberry (*Sapindus saponaria*), and Roosevelt weed (*Baccharis neglecta*). The tree layer in this community is comprised of live oak (*Quercus virginiana*), cedar elm (*Ulmus crassifolia*), Japanese privet (*Ligustrum japonicum*), and Chinaberry tree (*Melia azedarach*).

The successional forest area within a historic pond comprises approximately 5 percent of the property. This area was dominated by hackberry (*Celtis occidentalis*) and cedar elm at various stages.

The native/mixed grassland is present along the stream channel and in isolated pockets of the Site where mowing does not occur frequently. This community is comprised of mixed tall grasses interspersed with shrubs and vines. This community comprises approximately 15 percent of the property. The primary vegetation present included: retama, Rooseveltweed, rattlebush/poisonbean (*Sesbania drummondii*), tasajillo (*Cylindropuntia leptocaulis*), doveweed (*Croton capitatus*), King Ranch bluestem, Johnsongrass (*Sorghum halepense*), western ragweed (*Ambrosia psilostachya*), and Texas bindweed (*Convolvulus equitans*).

While the majority of the riparian forest, native/mixed grassland, and successional forest were composed of native flora, the dominant plants in the maintained urban park consisted of invasive grasses.

An alternative service area is proposed that includes all of Bexar County, except the portions that occur within the Nueces River Basin. The proposed alternative service area for the NFPMB would allow mitigation of impacts within Bexar County and the San Antonio River Basin. This proposed alternate primary service area would serve as the only service area, with no secondary or tertiary service areas being proposed. The service area covers three, Level III ecoregions including the Texas Blackland Prairies, Edwards Plateau, and the East Central Texas Plains (Figure 10). The Texas Blackland Prairies ecoregion comprises 69% of the proposed service area, with the Edwards Plateau and the East Central Texas Plains covering 25% and 6%, respectively.

A mitigation banking instrument (MBI) would be developed in accordance with Compensatory Mitigation for Losses of Aquatic Resources, (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, who comprise the Interagency Review Team (IRT), 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 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 (Table 1). The proposed bank site is located in Bexar County where federally listed threatened and endangered species may occur. Our initial review indicates that the proposed work would have no effect on any federally-listed endangered or threatened species.

Table 1: Federally listed threatened and endangered species for Bexar County, TX		
Group	Name	Status
Arachnids	Cokendolpher Cave Harvestman (<i>Texella cokendolpheri</i>)	Endangered
Arachnids	Government Canyon Bat Cave Spider (<i>Neoleptoneta microps</i>)	Endangered
Arachnids	Madla's Cave Meshweaver (<i>Cicurina madla</i>)	Endangered
Arachnids	Robber Baron Cave Meshweaver (<i>Cicurina baronia</i>)	Endangered
Arachnids	Government Canyon Bat Cave Meshweaver (<i>Cicurina vespera</i>)	Endangered
Arachnids	Braken Bat Cave Meshweaver (<i>Cicurina venii</i>)	Endangered
Birds	Whooping crane (<i>Grus americana</i>)	Endangered
Birds	Piping Plover (<i>Charadrius melodus</i>)	Threatened
Birds	Piping Plover (<i>Charadrius melodus</i>)	Threatened
Birds	Black-capped Vireo (<i>Vireo atricapilla</i>)	Endangered
Birds	Golden-cheeked warbler (=wood) (<i>Dendroica chrysoparia</i>)	Endangered
Flowering Plants	Bracted twistflower (<i>Streptanthus bracteatus</i>)	Candidate
Insects	[no common name] Beetle (<i>Rhadine infernalis</i>)	Endangered
Insects	Helotes mold beetle (<i>Batrisodes venyivi</i>)	Endangered
Insects	[no common name] Beetle (<i>Rhadine exilis</i>)	Endangered

*Source: http://ecos.fws.gov/tess_public/reports/species-by-current-range-county?fips=48029

NATIONAL REGISTER OF HISTORIC PLACES: The USACE has reviewed the latest complete published version of the National Register of Historic Places and found no listed properties to be in the project area. The area of the proposed mitigation bank has been formally surveyed for the presence of historic and prehistoric artifacts. No historic or prehistoric sites were identified within the permit area. Therefore, additional work to identify these sites is not necessary.

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.

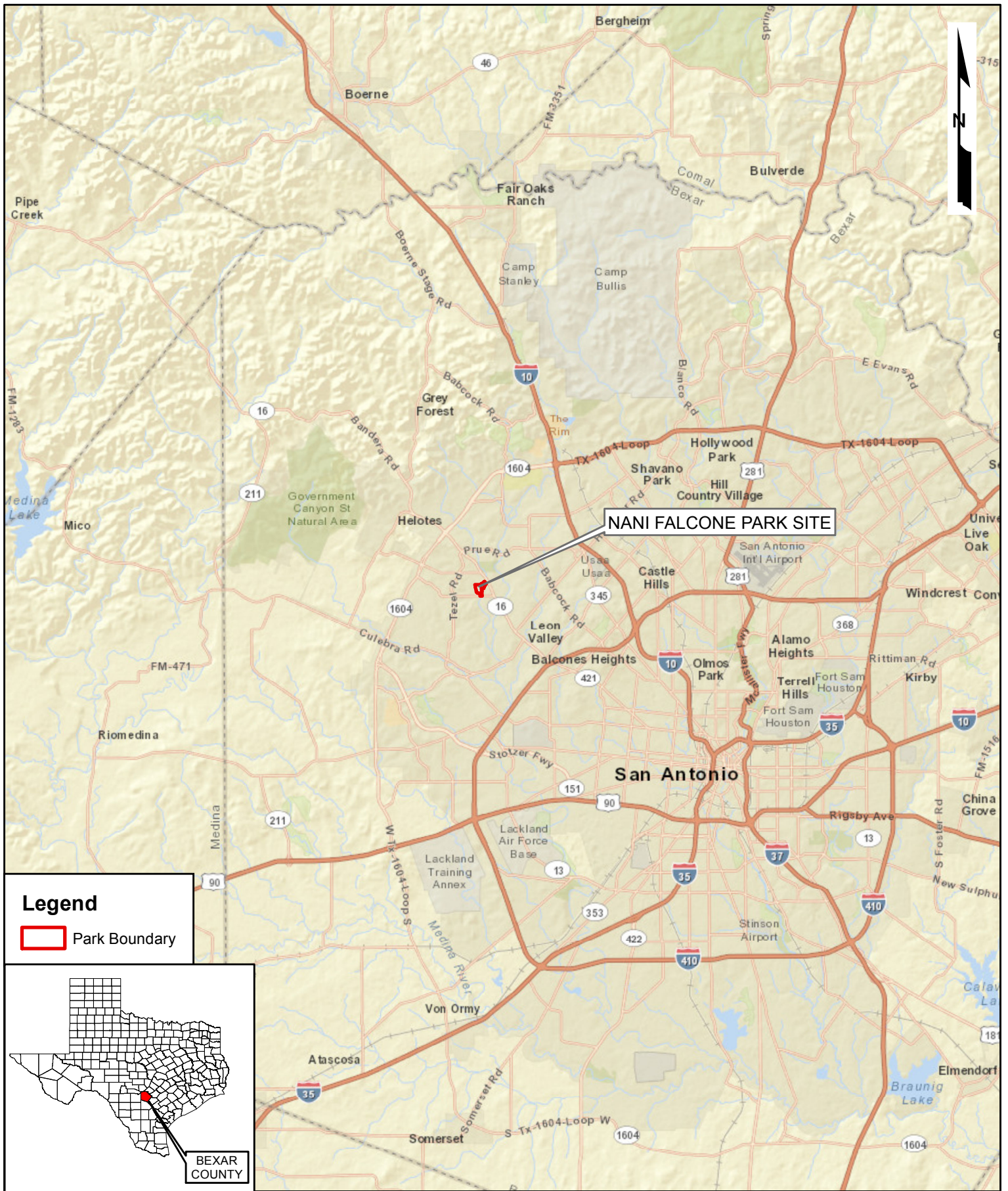
SOLICITATION OF COMMENTS: The public notice is being distributed to all known interested persons in order to allow the public an opportunity to comment on this Bank proposal and to assist the USACE and other members of the IRT in developing the final MBI. For accuracy and completeness of the record, 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 January 18, 2016, 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. Brent Jasper; Regulatory Branch, CESWF-DE-R; U.S. Army Corps of Engineers; Post Office Box 17300; Fort Worth, Texas 76102-0300.

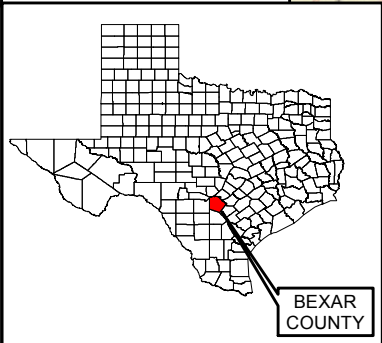
A full prospectus will be made available for review upon request, or you may visit the Regulatory Division in Room 3A37 of the Federal Building at 819 Taylor Street in Fort Worth between 8:00 A.M. and 3:30 P.M., Monday through Friday. Telephone inquiries should be directed to (817) 886-1733. Please note 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



Legend

 Park Boundary



0 1.5 3 6
 Miles

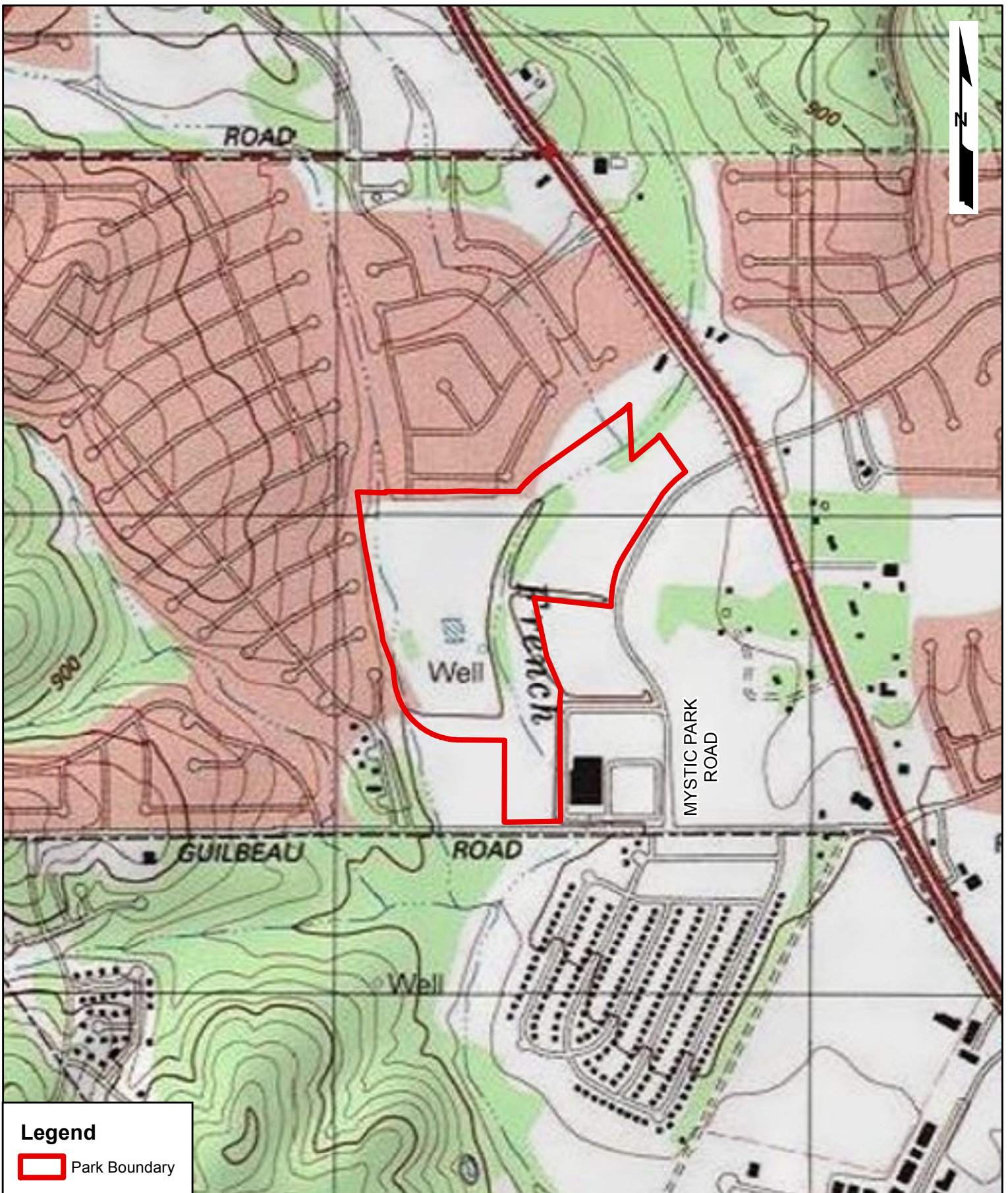
NANI FALCONE PARK
 VICINITY MAP




FIGURE 1


BEXAR COUNTY, TX

DATE:
 DEC. 2015



Legend

 Park Boundary

0 350 700 1,400
 Feet

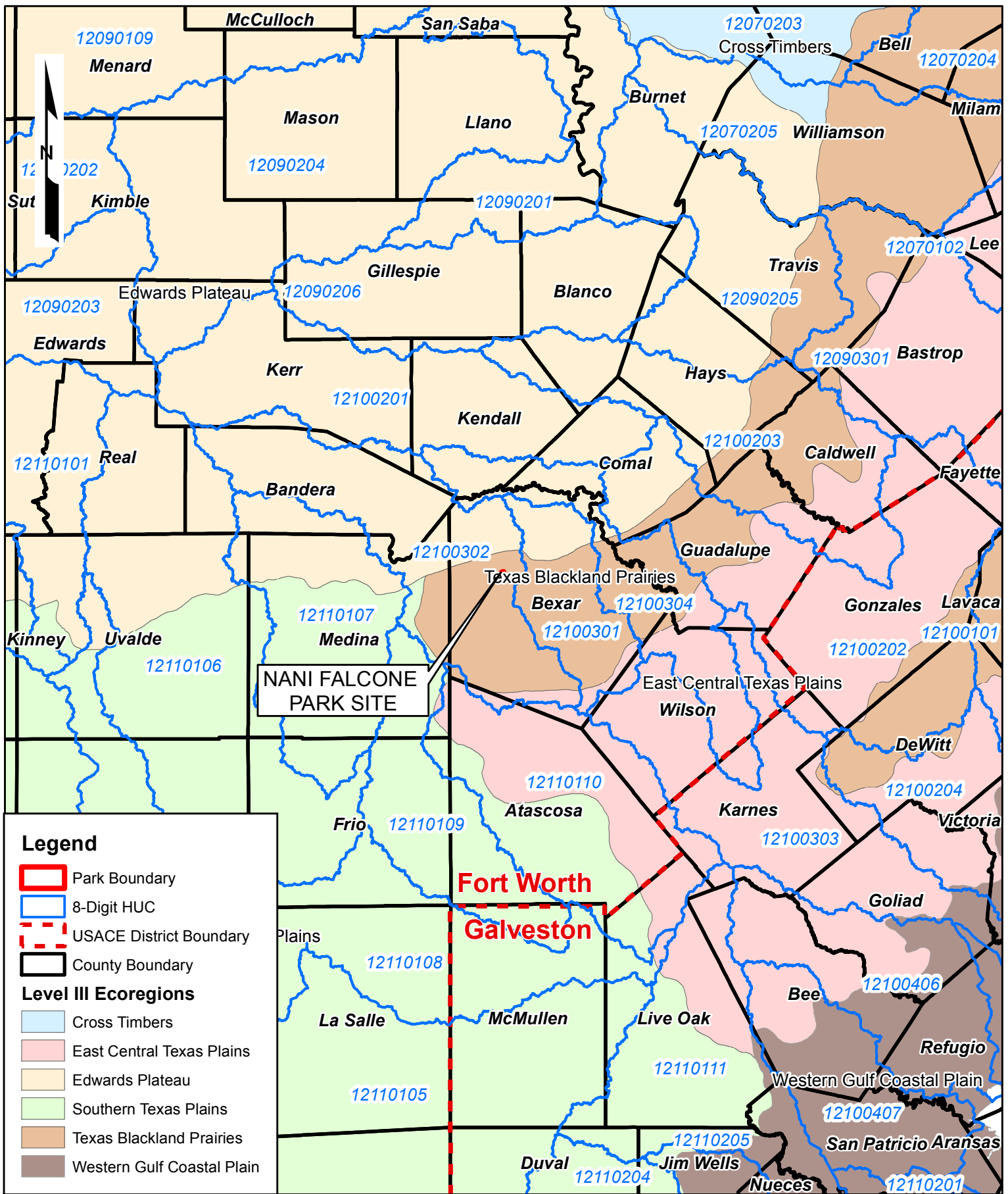
NANI FALCONE PARK
 USGS TOPOQUAD MAP



FIGURE 2

BEXAR COUNTY, TX

DATE:
 DEC. 2015



0 15 30
Miles

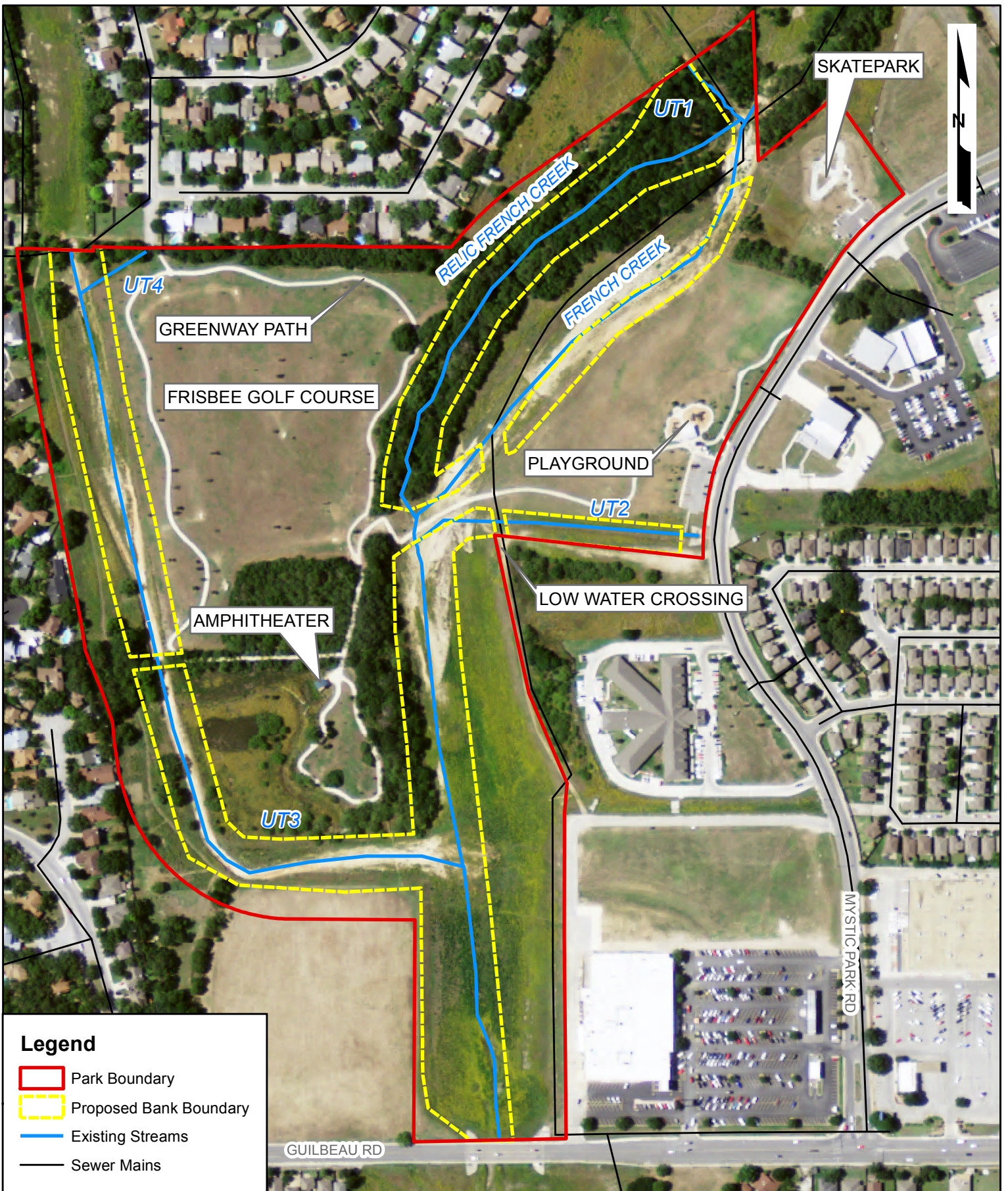
NANI FALCONE PARK
8-DIGIT HUC AND LEVEL III ECOREGIONS



FIGURE 3

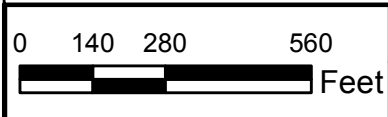
BEXAR COUNTY, TX

DATE:
DEC. 2015



Legend

- Park Boundary
- Proposed Bank Boundary
- Existing Streams
- Sewer Mains



NANI FALCONE PARK
EXISTING CONDITIONS MAP

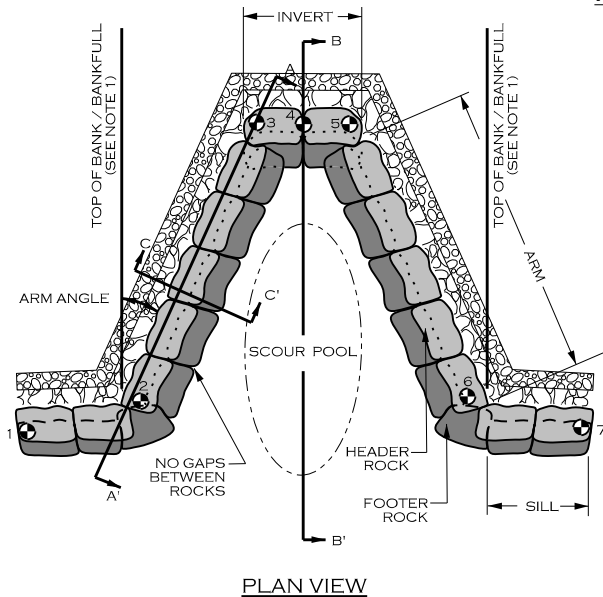


FIGURE 4

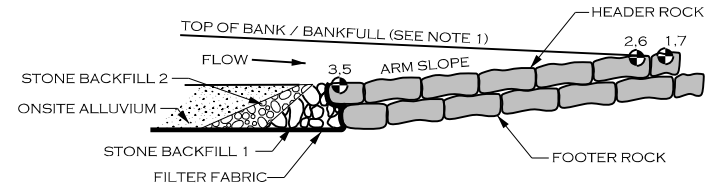
BEXAR COUNTY, TX

DATE:
DEC. 2015

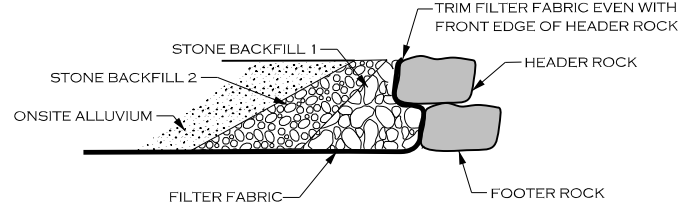
ROCK CROSS VANE



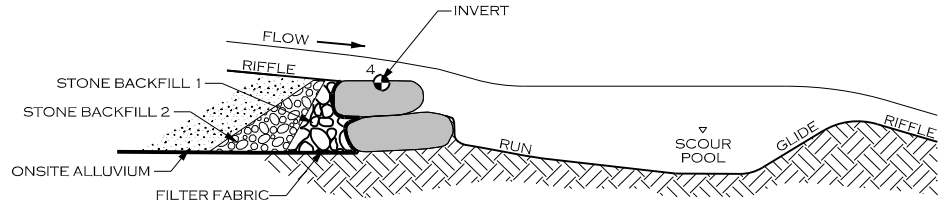
PLAN VIEW



PROFILE VIEW A - A'
VANE ARM



SECTION C - C'
INVERT AND POOL



PROFILE VIEW B - B'
INVERT

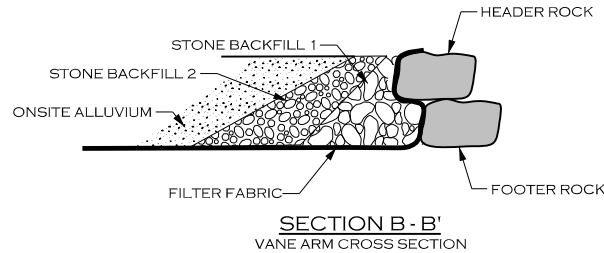
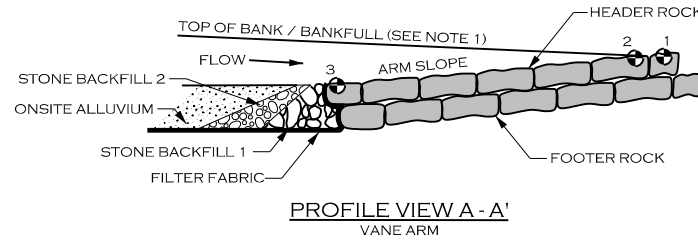
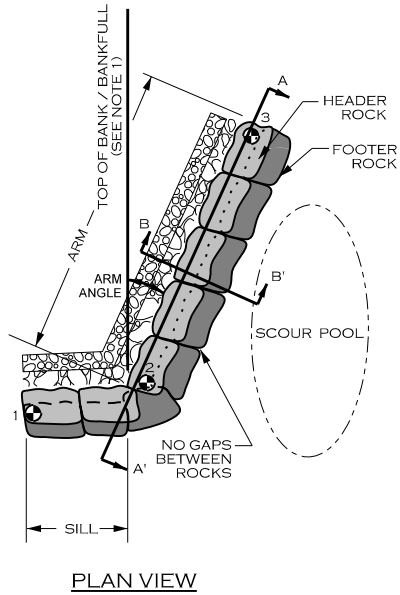
① - ELEVATION POINT (SEE STRUCTURES TABLE)

ROCK CROSS VANE SPECIFICATIONS	
MATERIALS:	SPECIFICATIONS:
BOULDER	TYPE: GRANITE OR COMPARABLE SIZE: 5 FT X 4 FT X 3FT NUMBER OF HEADER ROWS: 1 NUMBER OF FOOTER ROWS: 1
FILTER FABRIC	TYPE: TYPE 2 NON-WOVEN WIDTH UPSTREAM: 6 FT MINIMUM
<p>NOTES FOR CROSS VANE STRUCTURES:</p> <ol style="list-style-type: none"> STRUCTURE DIMENSIONS AND MEASUREMENTS ARE SHOWN ON THE STRUCTURES TABLE SHEET. DIG A TRENCH BELOW THE STREAM BED FOR FOOTER AND HEADER ROCKS, FILTER FABRIC AND STONE BACKFILL. PLACE FOOTER ROCKS AND THEN HEADER ROCKS TO ACHIEVE DESIGN DIMENSIONS AND ELEVATIONS. USE HAND PLACED STONE TO FILL GAPS AND VOIDS ON UPSTREAM SIDE OF THE HEADER AND FOOTER ROCKS. PLACE FILTER FABRIC BEGINNING AT THE TOP OF THE HEADER ROCKS AND EXTENDING DOWN TO THE DEPTH OF THE FOOTER ROCKS, THEN OUTWARD THE DISTANCE SPECIFIED IN THE STRUCTURES TABLE SHEET. INSTALL STONE BACKFILL AND ONSITE ALLUVIUM AS SHOWN, TO THE DIMENSIONS INDICATED IN THE STRUCTURES TABLE SHEET. AFTER ALL STONE BACKFILL HAS BEEN PLACED, FILL IN THE UPSTREAM SIDE OF THE STRUCTURE WITH ONSITE ALLUVIUM TO THE ELEVATION OF THE TOP OF THE HEADER ROCK. 	

FIGURE 5

ROCK CROSS VANE

ROCK VANE



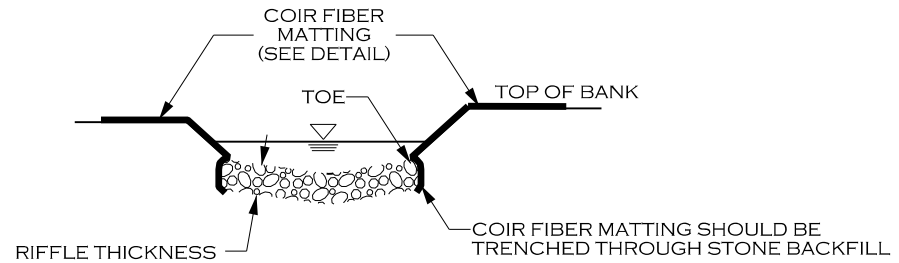
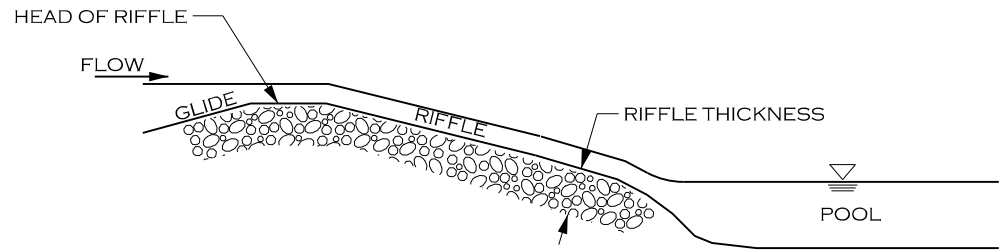
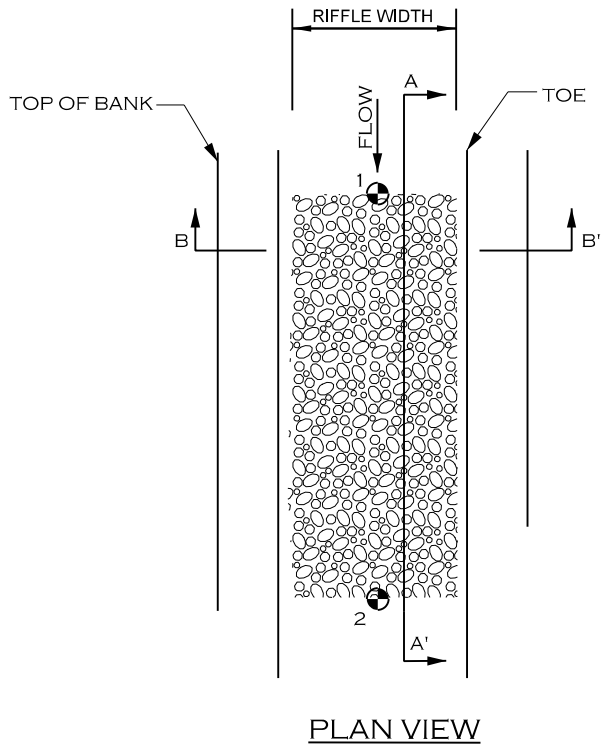
⊙ - ELEVATION POINT (SEE STRUCTURES TABLE)

ROCK VANE SPECIFICATIONS		
MATERIALS:	SPECIFICATIONS:	
BOULDER	TYPE: SIZE: NUMBER OF HEADER ROWS: NUMBER OF FOOTER ROWS:	GRANITE OR COMPARABLE 5 FT X 4 FT X 3FT 1 1
FILTER FABRIC	TYPE: WIDTH UPSTREAM:	TYPE 2 NON-WOVEN 6 FT MINIMUM
NOTES FOR ROCK VANE STRUCTURES:		
<ol style="list-style-type: none"> STRUCTURE DIMENSIONS AND MEASUREMENTS ARE SHOWN ON THE STRUCTURES TABLE SHEET. DIG A TRENCH BELOW THE STREAM BED FOR FOOTER AND HEADER ROCKS, FILTER FABRIC AND STONE BACKFILL. PLACE FOOTER ROCKS AND THEN HEADER ROCKS TO ACHIEVE DESIGN DIMENSIONS AND ELEVATIONS. USE HAND PLACED STONE TO FILL GAPS AND VOIDS ON UPSTREAM SIDE OF THE HEADER AND FOOTER ROCKS. PLACE FILTER FABRIC BEGINNING AT THE TOP OF THE HEADER ROCKS AND EXTENDING DOWN TO THE DEPTH OF THE FOOTER ROCKS, THEN OUTWARD THE DISTANCE SPECIFIED IN THE STRUCTURES TABLE SHEET. INSTALL STONE BACKFILL AND ONSITE ALLUVIUM AS SHOWN, TO THE DIMENSIONS INDICATED IN THE STRUCTURES TABLE SHEET. AFTER ALL STONE BACKFILL HAS BEEN PLACED, FILL IN THE UPSTREAM SIDE OF THE STRUCTURE WITH ONSITE ALLUVIUM TO THE ELEVATION OF THE TOP OF THE HEADER ROCK. 		

FIGURE 6

ROCK VANE

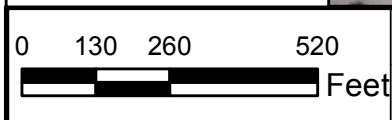
CONSTRUCTED RIFFLE



CONSTRUCTED RIFFLE SPECIFICATIONS	
MATERIALS:	SPECIFICATIONS:
STONE BACKFILL	TYPE: GRANITE OR COMPARABLE SIZE: CLASS A AND CLASS B STONE (50/50 MIX) THICKNESS: 16 INCHES MIN.
COIR FIBER MATTING	SEE MATTING DETAIL
NOTES FOR CONSTRUCTED RIFFLE STRUCTURES:	
<ol style="list-style-type: none"> 1. GRADE STREAMBED AND BANKS TO PROPOSED DIMENSIONS PER TYPICAL CROSS-SECTION AND PROFILE. 2. EXCAVATE TRENCH BELOW PROPOSED STREAMBED ELEVATION EQUAL TO OR GREATER THAN RIFFLE THICKNESS. 3. INSTALL COIR FIBER MATTING ALONG STREAMBANKS ENSURING MATTING IS SUFFICIENTLY TRENCHED ALONG TOP OF BANK. 4. FILL TRENCH WITH STONE TO FINAL DESIGN STREAM GRADE. 	

FIGURE 7

CONSTRUCTED RIFFLE



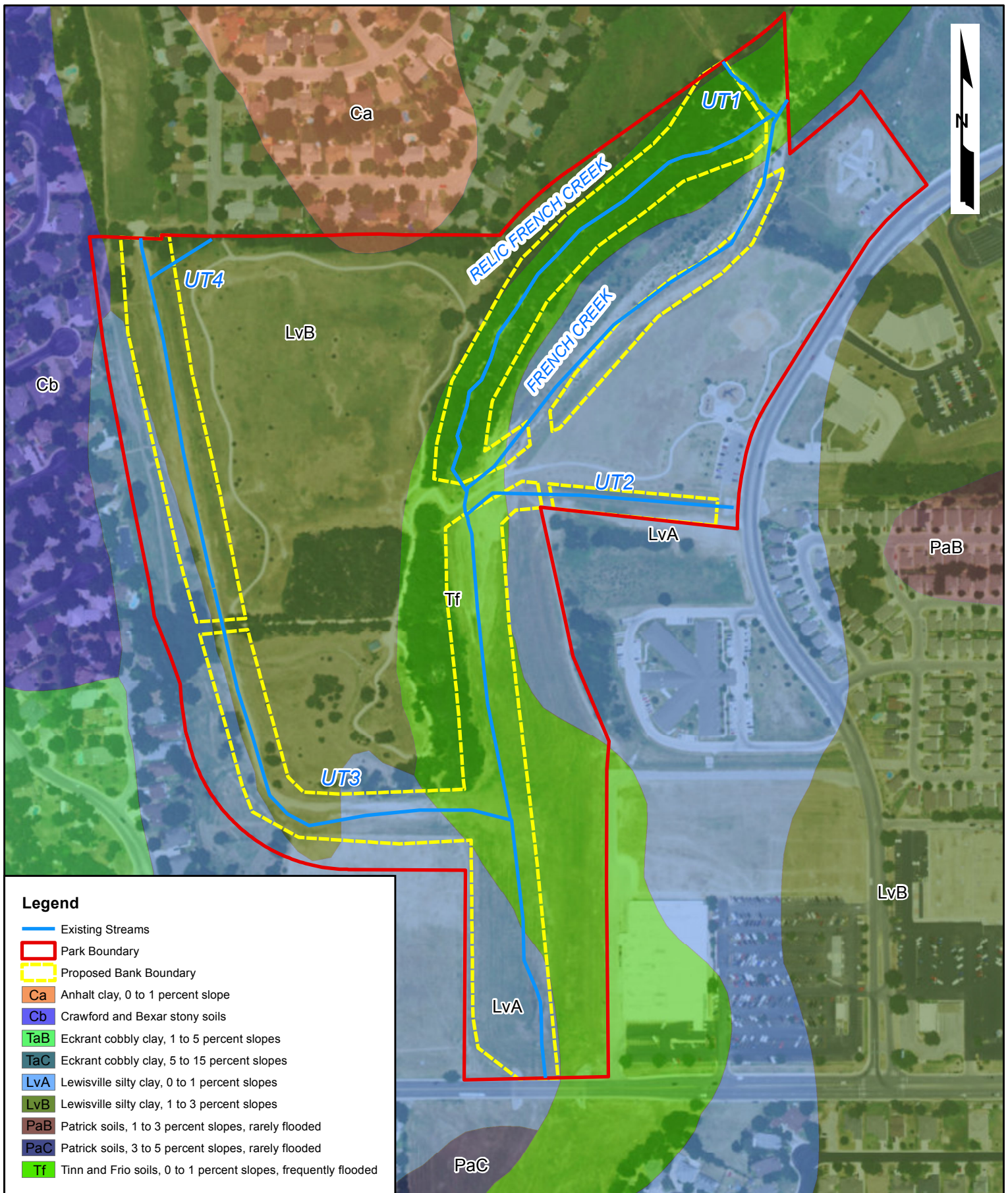
NANI FALCONE PARK
MITIGATION CONCEPT MAP



FIGURE 8

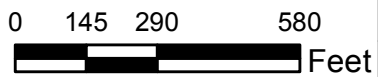
BEXAR COUNTY, TX

DATE:
DEC. 2015



Legend

- Existing Streams
- Park Boundary
- Proposed Bank Boundary
- Ca Anhalt clay, 0 to 1 percent slope
- Cb Crawford and Bexar stony soils
- TaB Eckrant cobbly clay, 1 to 5 percent slopes
- TaC Eckrant cobbly clay, 5 to 15 percent slopes
- LVA Lewisville silty clay, 0 to 1 percent slopes
- LvB Lewisville silty clay, 1 to 3 percent slopes
- PaB Patrick soils, 1 to 3 percent slopes, rarely flooded
- PaC Patrick soils, 3 to 5 percent slopes, rarely flooded
- Tf Tinn and Frio soils, 0 to 1 percent slopes, frequently flooded



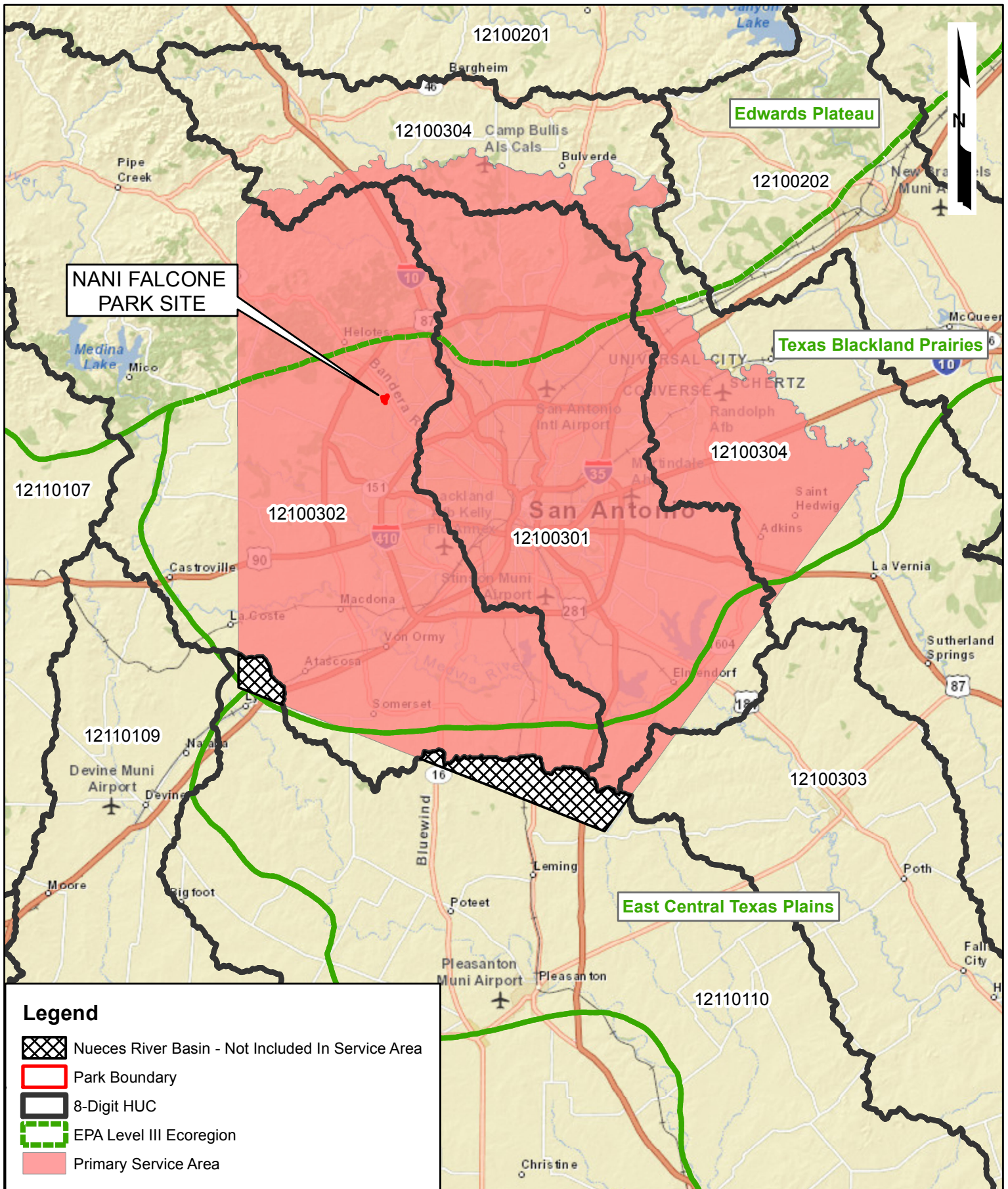
NANI FALCONE PARK
NRCS SOILS MAP



FIGURE 9

BEXAR COUNTY, TX

DATE:
DEC. 2015



0 5 10
 Miles

NANI FALCONE PARK
 BANK SERVICE AREA MAP (ALTERNATE)



FIGURE 10

BEXAR COUNTY, TX

DATE:
 DEC. 2015