AN ARCHAEOLOGICAL SURVEY FOR THE G-M WATER SUPPLY CORPORATION IN SABINE AND SAN AUGUSTINE COUNTIES, TEXAS

Antiquities Permit 3491

By
William E. Moore

Brazos Valley Research Associates
Contract Report Number 140

2004

AN ARCHAEOLOGICAL SURVEY FOR THE G-M WATER SUPPLY CORPORATION IN SABINE AND SAN AUGUSTINE COUNTIES, TEXAS

BVRA Project Number 04-20

Author and Principal Investigator

William E. Moore

Prepared by

Brazos Valley Research Associates
813 Beck Street
Bryan, Texas 77803

Prepared for

G-M Water Supply Corporation
Post Office Box 727
Hemphill, Texas 75948

ABSTRACT

An archaeological survey of three creek crossings and four well sites to be affected by a proposed G-M Water Supply Corporation (WSC) water improvements project in Sabine and San Augustine counties, Texas was performed by Brazos Valley Research Associates (BVRA) in July of 2004 under Antiquities Permit 3491. The total project area under consideration consists of 40 miles of proposed water line (72.7 acres) and four proposed well sites (.92 acre). The Federal agency involved in this project is the United States Department of Agriculture, Rural Utility Service, and Steve Kelley is the agency representative. William E. Moore was the Principal Investigator and was assisted by Edward P. Baxter (Project Archaeologist). No prehistoric or historic sites will be affected by the project as currently proposed, and no artifacts worthy of curation were collected.

ACKNOWLEDGMENTS

I am grateful to the following individuals for their assistance in this project. At Klotz Associates, Inc. James Flournoy, Regional Manager; Gary W. Johnson, P.E., Karl Leedy, Associate Engineer, and Linda Lawrence provided the maps and other logistical support that made it possible to complete this survey. John E. Ippolito, Staff Archeologist at the United States Forest Service, Lufkin District is thanked for taking time from his busy schedule to discuss the archaeological potential of the water line route where it passes through the Sabine National Forest. Edward P. Baxter served as the Project Archaeologist and is thanked for his willingness to work in the heat. Mr. Baxter also prepared the figures that appear in this report. Allegra Azulay, Records File Search Assistant at the Texas Archeological Research Laboratory (TARL) and Jean L. Hughes, Assistant Curator of Records at TARL, conducted the background search for previously recorded sites in the project area and vicinity. The entire project was made possible by a contract with the G-M WSC under the direction of Jerry Pickard, Manager. Mr. Pickard and G-M WSC employee Anna Simmons were present during a portion of the field survey to make sure that the correct areas were investigated. Ms Simmons also conducted archival research pertaining to the history of the three buildings in downtown Bronson.

CONTENTS

Figures

INTRODUCTION

G-M WSC of Hemphill, Texas plans to provide water to its customers by connecting approximately 40 miles of new water line and connections in rural Sabine and San Augustine counties (Figure 1). The water supply line will be placed in trenches 3-4 feet deep and 2-3 feet wide. Much of the proposed water line will be placed adjacent to existing water lines, mainly within ditches and other areas of previously disturbed rights-of-way. Only a minor portion of the project area will contain new line in undisturbed areas. In some cases, the water line may be placed on private property. In addition to the water line, four well sites are planned to occupy tracts with a maximum size of one acre. The Federal agency associated with this project is the United States Department of Agriculture, Rural Utility Services, and Steve Kelley is the representative for this agency.

The plans for this project with accompanying maps were submitted to the Texas Historical Commission (THC), Archeology Division for review. Realizing the potential for significant archaeological sites in this part of East Texas, the request was made that the project plans be reviewed by a professional archaeologist who can identify high probability areas that will require formal archaeological survey. This request was made in writing by the Texas State Historic Preservation Officer on May 3, 2004. According to the THC, only "those areas, such as intact lower terraces and creek crossings, which have not been significantly impacted by earlier highway construction and/or development, should be surveyed."

BVRA was retained by G-M WSC through Klotz Associates, Inc., Consulting Engineers of Lufkin, Texas, to conduct an archaeological assessment of the proposed water line and well sites as part of a planning tool prior to performing a formal archaeological survey (Moore 2004a). William E. Moore and Edward P. Baxter did the assessment on June 9-10, 2004. In all, 31 high probability areas for prehistoric sites, depending on the placement of the water line, were identified. Also, three commercial buildings in downtown Bronson dating to the early 20th century were noted for evaluation by the architectural historians at the Texas Historical Commission. The assessment report was submitted to Klotz Associates, Inc. for review. In a letter dated June 24, 2004, they responded by identifying those areas to be placed in disturbed rights-of-way. Based on this correspondence, archaeological survey was only required for three creek crossings in addition to the four well sites. BVRA submitted a permit application to the Texas Historical Commission, Archeology Division on July 15, 2004 to complete the project, and permit 3491 was issued with Debra L. Beene the lead reviewer. This survey was performed on July 21, 2004.

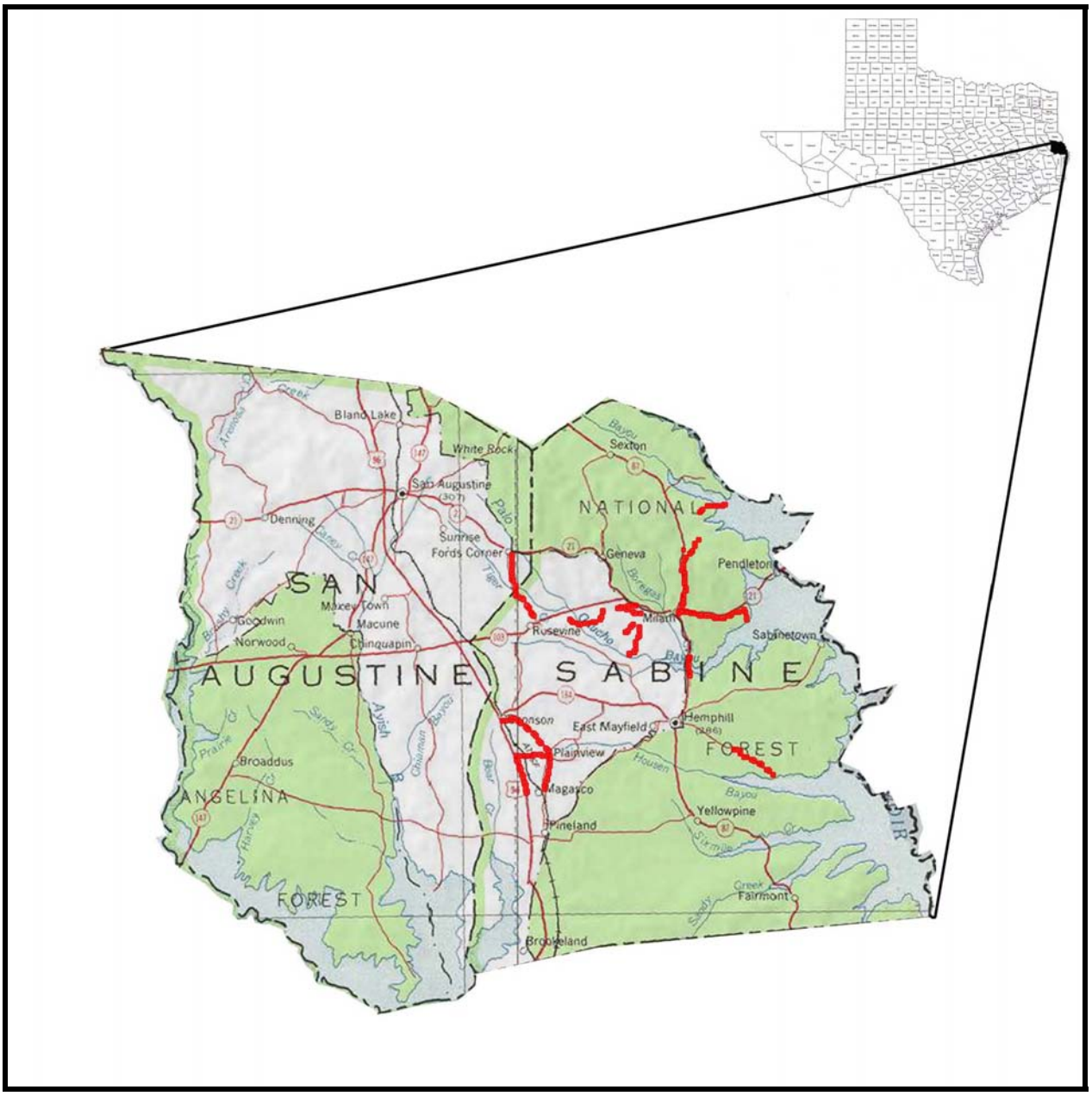


Figure 1. General Location

The project area is depicted on seven topographic maps. They are Bronson dated 1958 (3194-141), Chinquapin dated 1984 (3194-144), East Hamilton dated 1984 (3193-321), Geneva dated 1984 (3193-233), Hemphill dated 1984 (3193-231), Milam dated 1984 (3193-234), and Pineland North dated 1984 (3193-232). An overview of the entire area is depicted as Figure 2. Specific topographic maps with numbers and previously archaeological sites are presented in Appendix I.

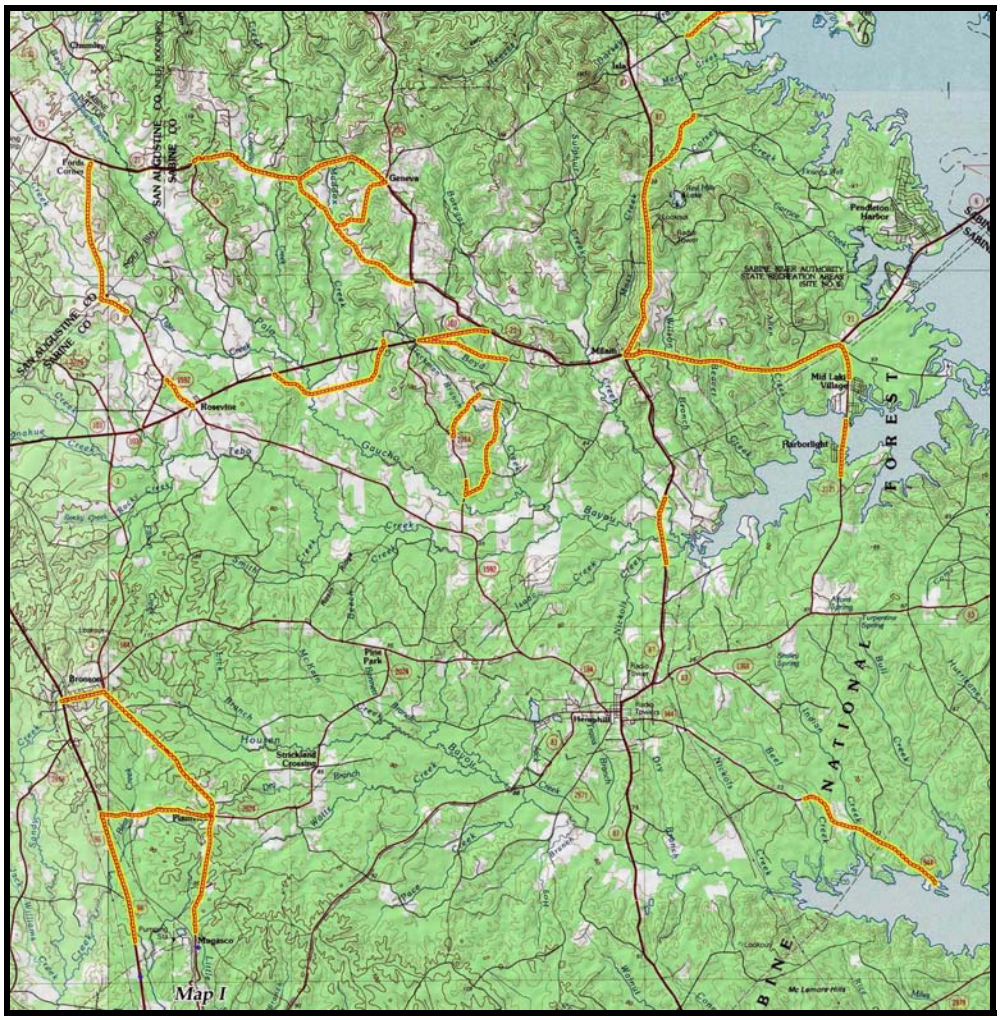


Figure 2. Project Area

ARCHAEOLOGICAL BACKGROUND

General

Sabine County is located in Northeast Texas within the Eastern Planning Region as defined by Kenmotsu and Perttula (1993). The following comments are taken from their comprehensive document for this area, and the interested reader is referred to this volume for more detailed information. Environmentally, it is situated within the Piney Woods area of East Texas. Artificial disturbance in the county consists mainly of lignite mining and Toledo Bend Reservoir. Much of the county is located in areas owned by the United States National Forest Service.

In 1991, the county had a total of 152 recorded archaeological sites, of which 13 were regarded as significant. In 1993, Sabine County had less than .037 recorded sites per kilometer, the lowest ranking of counties in this area. Today, there are 348 recorded sites at TARL. The archaeological chronology for the area includes sites dating from Paleoindian times (9500 B.C. -7000 B.C.) through Historic Caddoan (A.D. 1680 - A.D. 1860). Today, there are 348 sites recorded at TARL.

Previous Work in the Area

Numerous archaeological investigations have been conducted in this part of East Texas over a long time span. Most of the prior work in the vicinity of the project area has consisted of small area surveys, many with negative results. The largest and most notable project was the Toledo Bend Reservoir survey. Archaeological survey of the area was first conducted by Arnold (1940), Scurlock and Davis (1962), and Scurlock (1964). Excavations at sites believed to be significant were carried out in Louisiana by McClurkan et al. (1966) and in Texas by Benham et al. (1973). Previous survey documented a high site density in this part of Texas and Louisiana. Arnold (1940), for example, located 200 sites (25 within the reservoir); Scurlock and Davis (1962) located an additional 100 sites; and Scurlock (1964) found five new sites. These efforts reported that both Neo-American (Caddoan) and Archaic complexes seemed to be well represented in the reservoir area. The excavations by McClurkan et al. (1966) on the Louisiana side of the lake were performed at Coral Snake Mound (16 SA 48), a burial mound associated with the Lower Mississippi Valley cultures; the Salt Lick site (16 SA 37a), a Fulton Aspect site; the Eleven Ton Bridge site (16 SA 37), also associated with the Fulton Aspect; and the Bison site (16 SA 30), associated with the Gibson Aspect. According to McClurkan et al. (1966:75), the excavated sites "demonstrated the presence of Caddoan peoples in the Toledo Bend Reservoir area and the concentrated influence of the Lower Mississippi Valley cultures." The three sites (X16SA101, X16SA17, and X41SY100) excavated by Benham et al. (1973:i) revealed a "settlement system along the Sabine River that included small seasonal villages as well as burial and mound sites."

The most recent study involving Sabine County was conducted in the spring of 2004 by BVRA for the New WSC. BVRA conducted an archaeological assessment (Moore 2004b) and survey (2004c) of 119.16 miles of proposed water line. All major creek crossings were visited and evaluated for their potential to contain intact archaeological sites worthy of archaeological survey. In all, 32 high probability areas were identified, and 39 previously recorded sites were found to be in the vicinity of the project area. No evidence of these sites was found during this survey.

Project Area

Four of the six previously recorded sites (41SB20, 41SB24, 41SB27, and 41SB34) near the project area were recorded in 1940 by G. E. Arnold during his informal survey of East Texas. Shovel testing was not conducted, and it is likely that many of the site boundaries are not accurately plotted on TARL maps. When these sites were recorded by Arnold, field numbers were often used, and the trinomials in use today were not available. Official site numbers were later assigned by TARL staff inhouse; however, this does not mean that all of these sites have been field checked. The remaining two sites were recorded by Southern Methodist University in 1977 (41SB72) and the archaeologists from the United States Forest Service in 1977 (41SB234).

METHODS

Prior to entering the field, a review of the project area as depicted on the seven topographic maps and a check of the site records at TARL for the presence of previously recorded archaeological sites in or near the project area was conducted. Previously recorded archaeological sites in close proximity to the water line were marked on the topographic maps, and the forms for these sites were reviewed in order to determine the effect of the water line on these cultural resources. Prior to visiting the project area, the Principal Investigator and Project Archaeologist met with the lead engineer at Klotz Associates, Inc. for this project, Gary Johnson, P.E. During this meeting the particulars of the project were discussed, and the route of the water line was checked against the field maps prepared by BVRA.

At the request of the client, an archaeological assessment of the entire water supply line was conducted. The entire route was driven by the Principal Investigator and Project Archaeologist. Forms were created for the purpose of recording relevant data regarding major creek crossings throughout the project area. All creek crossings were evaluated for the presence of intact lower terraces that appeared to be high probability areas as well as all historic sites within the proposed right-of-way (ROW). All areas examined were plotted on the topographic maps and given a field number. The field numbers, or waypoints, were located using a hand-held GPS. In all, 32 areas were inspected and assigned field numbers or waypoints as potential locations for significant prehistoric or historic sites (Appendix I). The only area of historic interest is a row of three commercial buildings in downtown Bronson that date to the early 20th century. These structures were marked on the topographic map to be photographed during the survey.

In many cases, profiles created by road cuts were visible. This made it possible to eliminate certain areas from consideration because of the presence of shallow sandy soils over hard clay. All historic markers encountered near the water line were read so that an idea of past events in the area could be better understood. Only those areas appearing to contain sandy soil on lower terraces in close proximity to streams were viewed by BVRA as likely settings for prehistoric sites.

At the time of the assessment the client had not made a final decision regarding which side of the road to place the water line, and the location of the well sites had not been determined. In addition, landowner permission to enter certain tracts of land had not been obtained. Therefore, the actual number of areas requiring a formal survey was unknown. Later, Klotz Associates, Inc. and the G-M WSC confirmed the exact route of the water line and location of the well sites. Because most of the water line will be placed in the disturbed rights-of-way rather than on private property, the number of areas to be shovel tested was reduced from 31 to 3. In addition, it the project engineer informed BVRA that the water line should have no affect on the historic buildings in downtown Bronson. During the assessment notes were taken regarding those areas that were not surveyed for this project. They are discussed in Appendix II.

The three rural areas were visited and investigated through surface examination. When shovel tests revealed a shallow clay subsoil or evidence of soil disturbance, shovel tests were not excavated, and the investigator moved to the next location. Each area investigated was documented through digital photography and field notes. All excavated matrix from the shovel tests was passed through 1/4 inch hardware cloth. Detailed information regarding the tests appears in Appendix III. Because of the few shovel tests per area, the location of these tests do not appear on maps in this report. Their locations, however, are described in the text. The commercial buildings in downtown Bronson were photographed for inclusion in the report and evaluation by the architectural historians at the Texas Historical Commission. Since these structures are outside the proposed route of the water line and not likely to be impacted by the water line, site numbers were not assigned and detailed archival research was not conducted.

RESULTS AND CONCLUSIONS

A check of the site records at TARL revealed no archaeological sites are directly within the path of the water supply line as currently proposed. Five prehistoric sites, all in Sabine County (41SB24, 41SB27, 41SB34, 41SB72, and 41SB234) and one prehistoric site with a historic component (41SB20) are depicted on the TARL maps as being near the project area. The four areas were investigated during this survey, and the results are discussed below.

Survey Area 1

A portion of the water line will pass through downtown Bronson on the north side of State Highway 184 in Sabine County, and will be placed in the street next to an existing line that was laid in the 1960s (Figure 3). According to *The Handbook of Texas* (Volume 1, page 219), Bronson is the second largest town in Sabine County. It was established on the Gulf, Beaumont, and Great Northern Railroad at the western terminus of the Lufkin, Hemphill, and Gulf Tramway, and the first lot in the town was sold in 1902 when the town was named for Samuel Bronson Cooper. Although Bronson is mentioned in the Handbook as an important trading center, depletion of adjacent timber has reduced its population to approximately 800 in the 1950s. Three commercial structures dating to the early 20th century were observed as being adjacent to the proposed water line. Since the new line will be placed in the street parallel to a line originally installed in 1963, BVRA does not believe these structures will be negatively impacted. The three buildings are discussed in the text below, and they are illustrated by digital photography in figures 4-7.

Building 1

This is a one-story, rectangular brick building located on the north side of State Highway 184 in old downtown Bronson, Texas (Figure 4). According to research conducted by Anna Simmons of the G-M WSC, this building used to house a drugstore. It is now used by the Bronson Volunteer Fire Department. The front elevation of this structure has been modified by the addition of metal exterior which includes an overhead door to accommodate the fire truck and a metal door for entry by authorized personnel. Interior modifications are not known. The G-M WSC plans to place the water line at a distance sufficient to avoid damage to this building.

Although this building represents an important time period in the history of this East Texas community, and meets the age criterion for listing in the National Register of Historic Places, BVRA believes that the extensive modifications make it ineligible for listing on the National Register of Historic Places. Therefore, it is not eligible for designation as a State Archeological Landmark.

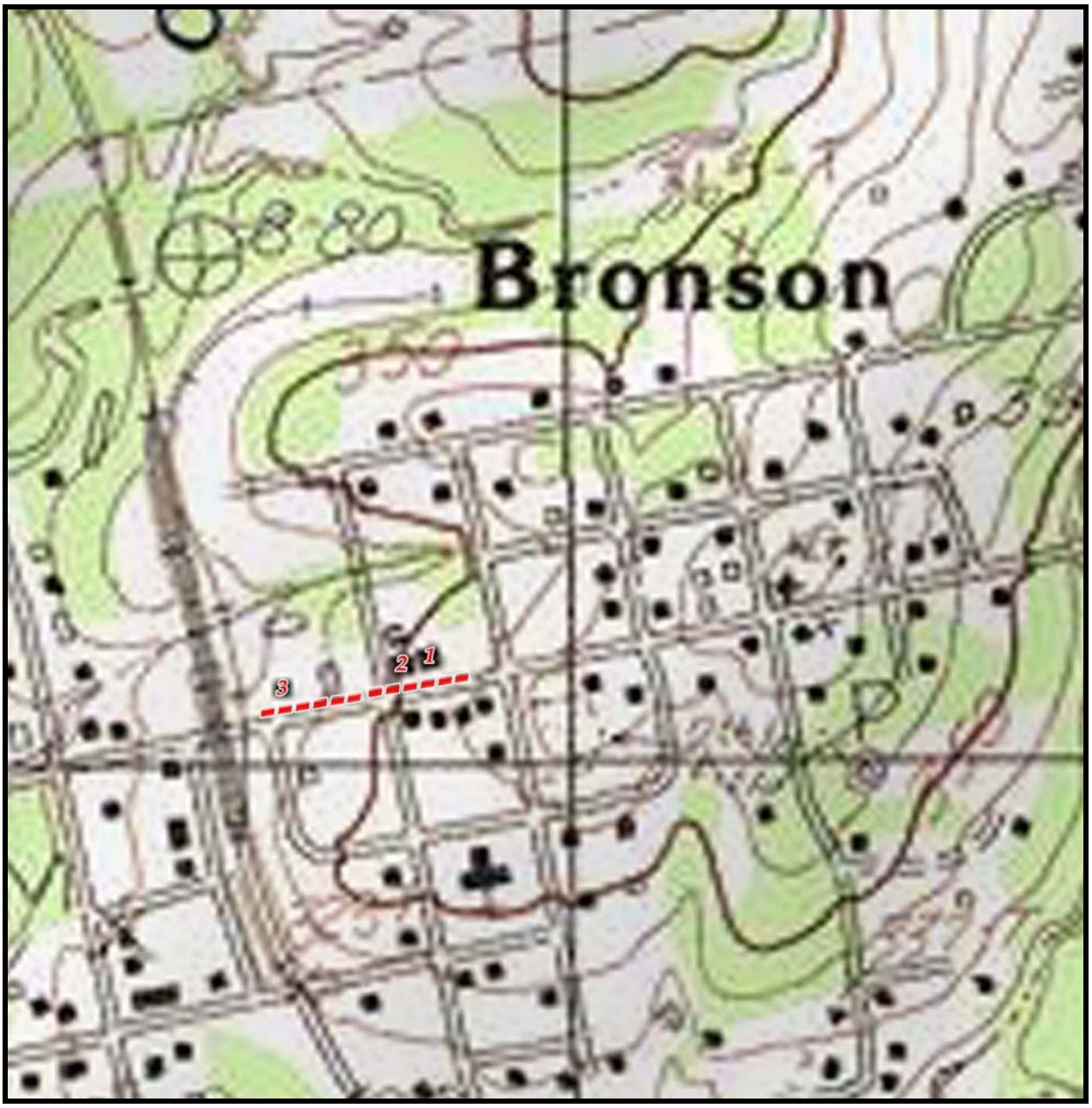


Figure 3. Historic Buildings 1-3

Figure 4. Building 1

Building 2

This is a two-story, rectangular brick building located on the north side of State Highway 184 in old downtown Bronson, Texas (Figure 5). According to research conducted by Anna Simmons of the G-M WSC, it function at one time as the local post office. The interior of this structure has been removed, and it is no longer in use. At the time of this survey, foliage was observed growing on the interior and exterior walls. Remnants of an awning are shown in the photograph depicting the right elevation. The G-M WSC plans to place the water line at a distance sufficient to avoid damage to this building.

Although this building represents an important time period in the history of this East Texas community and meets the age criterion for listing in the National Register of Historic Places, BVRA believes that the extensive disturbance to the interior and exterior make it ineligible for listing on the National Register of Historic Places. Therefore, it is not eligible for designation as a State Archeological Landmark.

Figure 5. Building 2

Building 3

This is a two-story, rectangular brick building located on the north side of State Highway 184 in old downtown Bronson, Texas (Figure 6). According to research conducted by Anna Simmons of the G-M WSC, the Kings Cafe was located in this building at one time. A portion of the back of this structure is currently used as a residence. The interior of this structure was not inspected during this survey; therefore, the condition of this area is not known. The front elevation depicts a building that appears to have sustained few modifications. Due to the presence of large trees and other vegetation, a photograph of the right elevation was not possible. Figure 7 depicts the date of construction (1919) that has been imprinted on the front of the building. The G-M WSC plans to place the water line at a distance sufficient to avoid damage to this building.

This building represents an important time period in the history of this East Texas community and meets the age criterion for listing in the National Register of Historic Places. If eligible for listing on the National Register of Historic Places, this structure may meet some of the criteria for designation as a State Archeological Landmark.

Figure 6. Building 3

Figure 7. Detail of Building 3

Survey Area 4

This survey area is located on both sides of a tributary of Bear Creek along Charlie Forse Road in Sabine County. This area was selected for survey since it was not known if the road easement would be wide enough for placement of the water line. The investigator carefully inspected all surface exposures and dug four shovel tests outside the highway ROW. The eastern side of the creek (north of the road) was found to be low and eroded. All tests were negative. Telephone utilities are buried in the only high area adjacent to the ROW. The southern area has also been disturbed by recent logging activities, and surface visibility was excellent. In this area, a portion of a low terrace was shovel tested and revealed 80 cm of sand over clay. The profile of this test, however, indicated subsurface disturbance. A second test was excavated nearer to the creek and encountered clay at the surface. The western side of the creek had been disturbed by the same logging activities, a railroad tract, and a private road. The cut banks of the road showed a shallow sandy mantle overlying clay. A third test was excavated outside the ROW on each side of the road. They, too, were negative. This area is located on the Pineland North topographic quadrangle (Appendix I - Map A).

Survey Area 29

This survey area is located at the point where Farm Road 1 crosses Tiger Creek in Sabine County. It was chosen for survey because the proposed water line route leaves the ROW and follows an existing easement containing an existing water line to be abandoned following construction of the new line. The 200 meter overland route followed an old disturbed road bed along the slope of a hill above Tiger Creek. The lower terrace of this hill was shovel tested with negative results. The proposed route then rejoined the highway ROW that had been built up about five feet in the low creek area. The east side of the creek contains clay at the surface and was not surveyed. This area is located on the Chinquapin topographic quadrangle (Appendix I - Map G).

Survey Area 32

This survey area is located where State Highway 21 crosses Maddox Creek in Sabine County. It was selected for survey for two reasons. Previously recorded site 41SB20 is located about 200 meters to the northeast, and the route may be moved to private land because of wetlands considerations.

The prehistoric site was recorded in 1940 by G. E. Arnold during his survey of East Texas for The University of Texas at Austin. He collected 34 pottery sherds from the surface of deeply eroded sand hill 350-400 feet west of Labonela Creek. The landowner (Mr. Hankla) reported to Mr. Arnold that the top of this hill had been under cultivation since 1840, and human skeletons had been exposed by plowing. Mr. Hankla said there was a log cabin on the site as well as piles of native cut stone that may have been part of a fort or mission erected by a Hispanic family in the early 18th century.

Four shovel tests were excavated in this area. Two (ST 11 - ST 12) were dug in the ROW of State Highway 21 at the nearest point to the recorded site and were dug to 30 cm. Both were negative. The remaining two tests (ST 13 - ST 14) were placed on each side of the creek outside the ROW, both negative. They were dug to 10 cm. The area on the northwest side of the creek consists of a clay slope and an adjacent low-lying area. The southeast side of the creek is a rocky hill with a very shallow sandy mantle. This area is located on the Geneva topographic quadrangle (Appendix I - Map H).

The roads in the project area are often narrow and unpaved. It is not uncommon for the road grade to be cut through hills. This created much disturbance to the landscape and, in many cases, lowered the road to an elevation well into the clay soils that underlie the sandy mantle near the surface. Much of the line traverses slopes of hills and upland ridges quite far from major streams. The areas selected for survey are mainly on private property outside the disturbed highway ROW and near previously recorded archaeological sites. Although many locations on the topographic maps appear to be high probability areas for significant archaeological sites, the field survey identified several of these areas as too disturbed to warrant archaeological survey. The disturbance noted consisted of road construction, existing utilities, or erosion. In some areas clay was observed at the surface, and other locations are too far from a water source to be considered likely settings for archaeological sites.

Proposed Well Site 1

This one-acre tract in Sabine County was marked by an iron "T" post placed in the center. It is adjacent to an existing G-M WSC pump station, and occupies a hilltop consisting of iron rock gravels mixed with reddish-orange clay. No developed soils were present. Much of the area had been recently cleared of existing vegetation, and surface visibility varied between 80% and 100%. The entire area was visually inspected, and one shovel test (ST 10) was excavated to 30 cm. No cultural materials were encountered. The location of this well site is depicted on the Geneva topographic quadrangle (Appendix I - Map H).

Proposed Well Site 2

This one-acre tract in Sabine County was marked by an iron "T" post placed in the center. It is located on the east side of State Highway 96 about 200 meters west of Easley Creek. The post was in standing water on top of very firm clay. The entire area was wooded and had been very disturbed through borrowing of earth for construction of the highway. The entire area was visually inspected, and one shovel test (ST 6) was excavated to 30 cm. The test was placed 10 meters west of the center to avoid the standing water. No cultural materials were encountered. The location of this well site is depicted on the Pineland North topographic quadrangle (Appendix I - Map I).

Proposed Well Site 3

This one-acre tract in Sabine County was marked by an iron "T" post placed in the center. It is adjacent to an existing G-M WSC pump station in the community of Plainview on a clay hill. The area was covered with a stand of young pine trees. The entire area was visually inspected, and one shovel test (ST 1) was excavated to 30 cm in the center of the tract. No cultural materials were encountered. The location of this well site is depicted on the Pineland North topographic quadrangle (Appendix I - Map A).

Proposed Well Site 4

This one acre tract in Sabine County was marked by an iron "T" post placed in the corner of the adjacent landowner's garden fence. The center of this tract was relocated by Jerry Pickard of the G-M WSC. This site is located on a gentle slope above a small tributary and was covered with short grass and a large area of exposed clay surface with no vegetative cover. The entire area was visually inspected, and one shovel test (ST 7) was excavated to 30 cm near the center of the tract. No cultural materials were encountered. The location of this well site is depicted on the Pineland North topographic quadrangle (Appendix I - Map A).

RECOMMENDATIONS

No archaeological sites within the project area will be affected by the water line and well sites as currently proposed. It is, therefore, recommended that the project proceed in the rural areas without further consultation with the Texas Historical Commission relative to cultural resources. Should evidence of an archaeological site be encountered during construction or the work plan changes, all work must be temporarily suspended in the area of the find until assessed by a professional archeologist in consultation with the Texas Historical Commission. It is recommended that the water line in the town of Bronson be placed at a distance from any significant structures that will not cause a negative impact. Should the water line be moved to the south side of the street additional structures will have to be evaluated for their significance.

REFERENCES CITED

Arnold, G. E.

1940 East Texas Reconnaissance, from October 1939, to July, 1940. Typed report on file at the Department of Anthropology, The University of Texas at Austin.

Benham, Blake L., Henry M. Miller, and James V. Sciscenti

1973 *Archaeological Research in the Toledo Bend Reservoir*. Unnumbered report submitted to the National Park Service by the Archaeology Research Program, Department of Anthropology, Southern Methodist University.

Kenmotsu, Nancy Adele, and Timothy K. Perttula

1993 *Archeology in the Eastern Planning Region, Texas: A Planning Document.* Department of Antiquities Protection (now Archeology Division), Cultural Resource Management Report 3, Texas Historical Commission.

McClurkan, Burney B., William T. Field, and J. Ned Woodall

1966 *Excavations in Toledo Bend Reservoir, 1964-65.* Papers of the Texas Archeological Salvage Project, Number 8. Austin.

Moore, William E.

2004a *An Archaeological Assessment for the G-M WSC in San Augustine and Sabine Counties, Texas.* Brazos Valley Research Associates, Archaeological Assessment Report Number 10.

2004b *An Archaeological Assessment for the New Water Supply Corporation Project in Sabine, Shelby, and San Augustine Counties, Texas.* Brazos Valley Research Associates, Archaeological Assessment Report Number 6.

2004c *An Archaeological Survey for the New Water Supply Corporation Project in Sabine, Shelby, and San Augustine Counties, Texas.* Brazos Valley Research Associates, Contract Report Number 136.

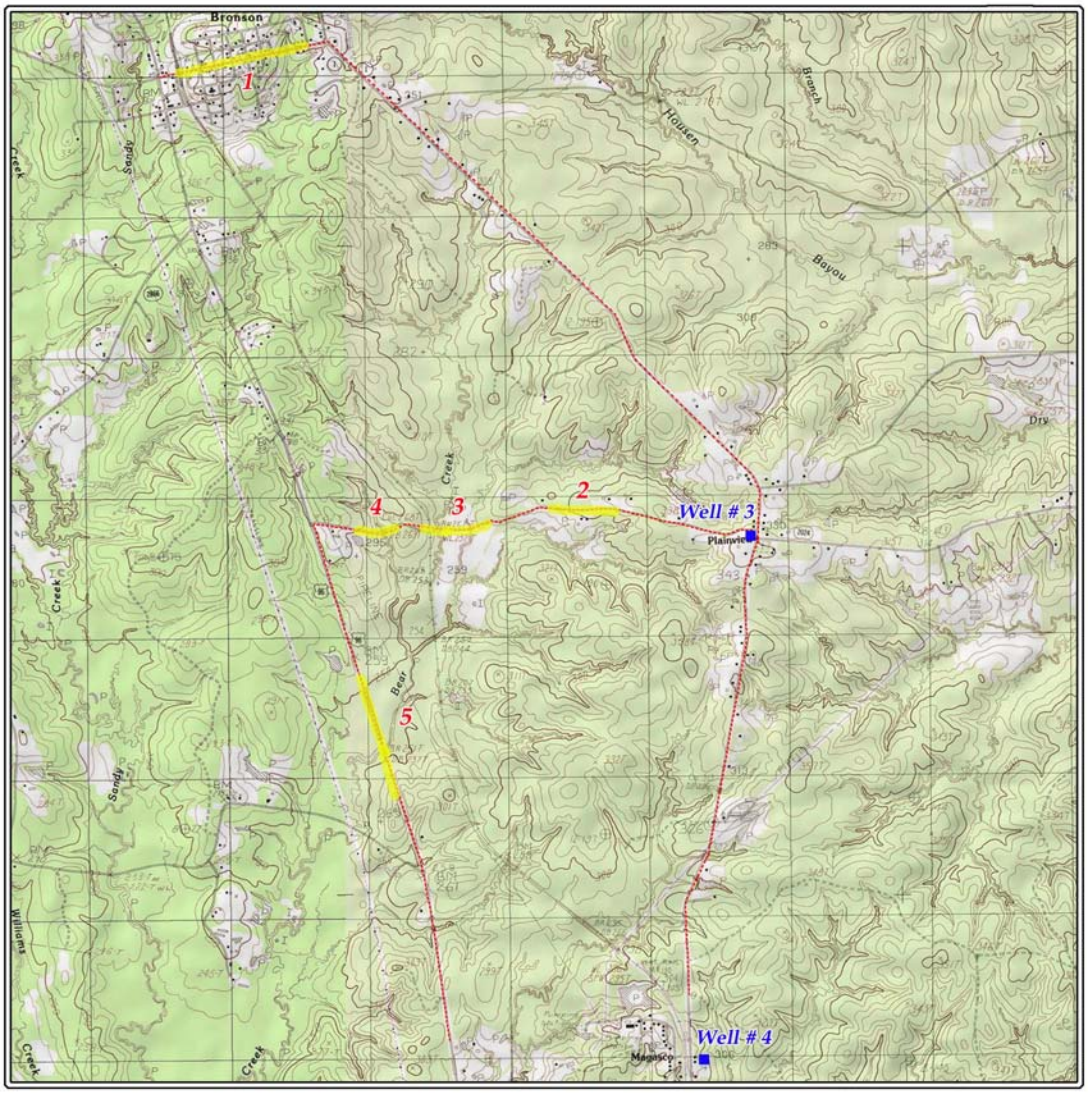
Scurlock, J. Dan

1964 Archeological Reconnaissance at Toledo Bend Reservoir, 1962-1963 Season. Report submitted to the National Park Service by the Texas Archeological Salvage Project, The University of Texas at Austin.

Scurlock, J. Dan, and W. A. Davis
1962 Appraisal of the Archeological Resources of Toledo Bend Reservoir, Panola, Newton, Sabine, and Shelby Counties, Texas; Sabine and De Soto Parishes, Louisiana. Report submitted to the National Park Service by the Texas Archeological Salvage Project, The University of Texas at Austin.

APPENDIX I

HIGH PROBABILITY AREAS AND PREVIOUSLY RECORDED SITES



N

500 Meters

USGS
Bronson and Pineland North,
Texas Quadrangles
3194-141 and 3193-232

G-M WSC

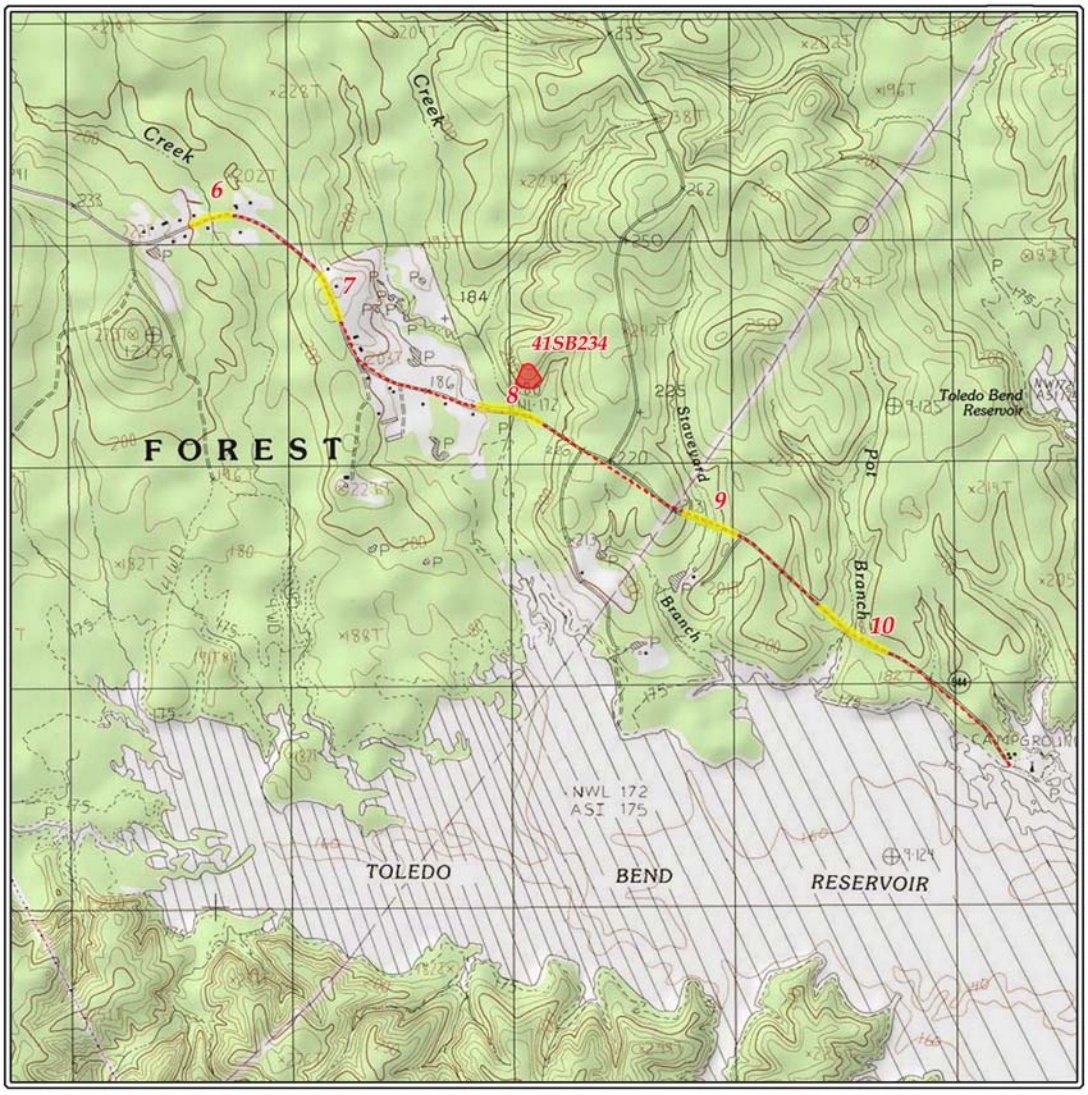
Map A

Proposed Waterline

Proposed Investigation Area

Proposed Well

BVRA



N

500 Meters

USGS Hemphill, Texas Quadrangle 3193-231

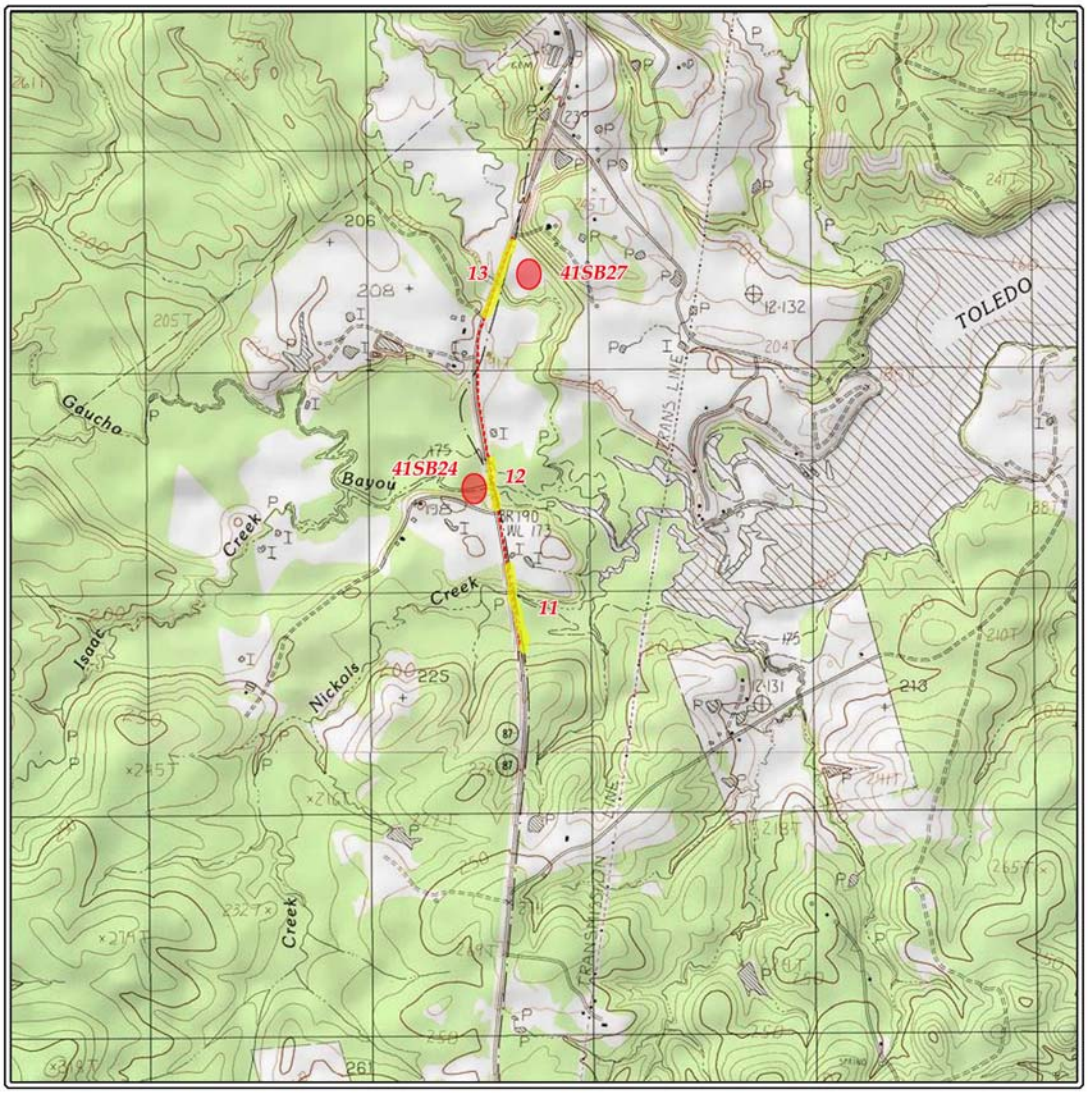
G-M WSC

Map B

Proposed Waterline

Proposed Investigation Area

BVRA



N

500 Meters

USGS Milam, Texas-Louisana Quadrangle 3193-234

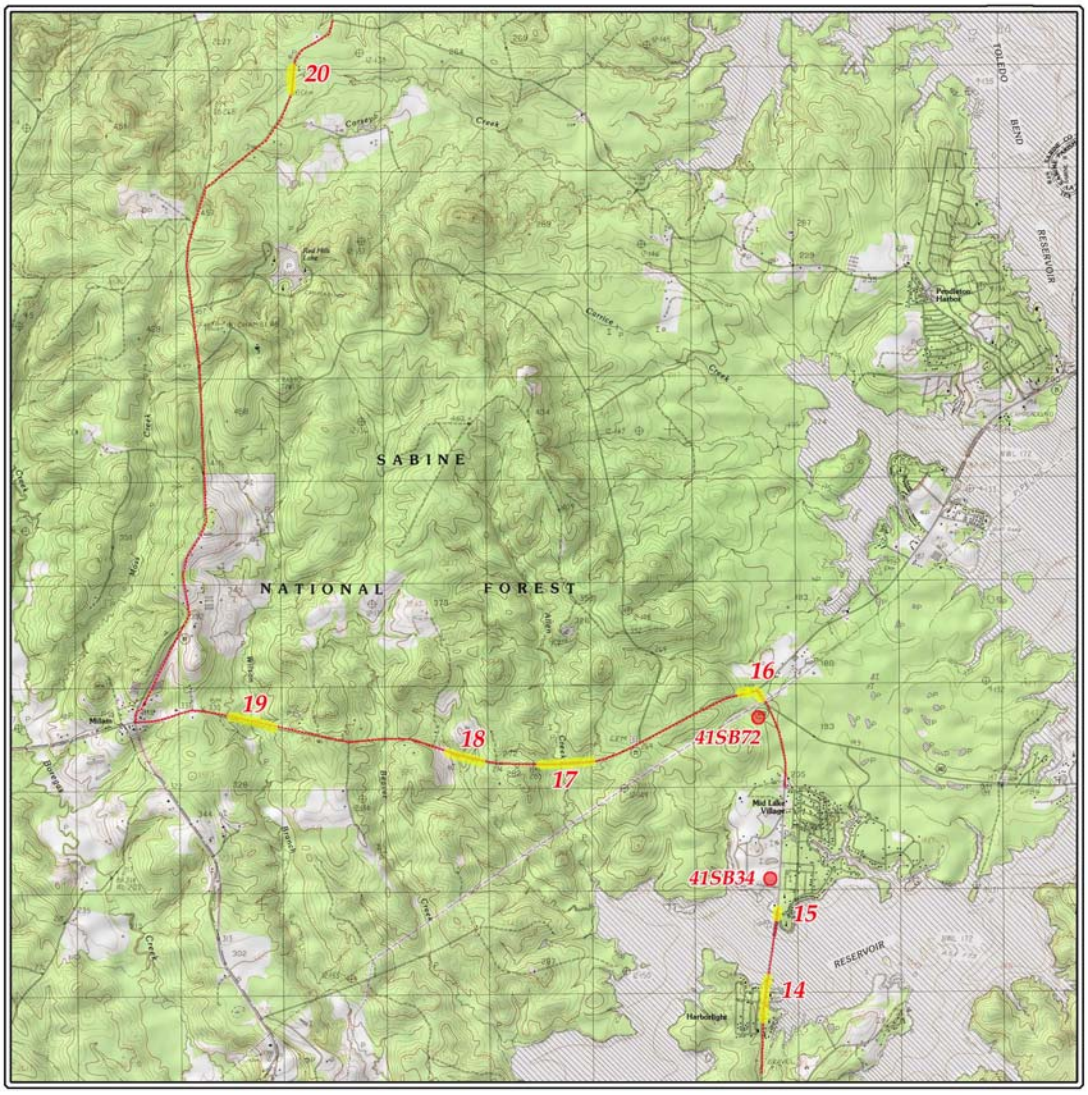
G-M WSC

Map C

Proposed Waterline

Proposed Investigation Area

BVRA



N

500 Meters

USGS Milam, Texas-Louisana Quadrangle 3193-234

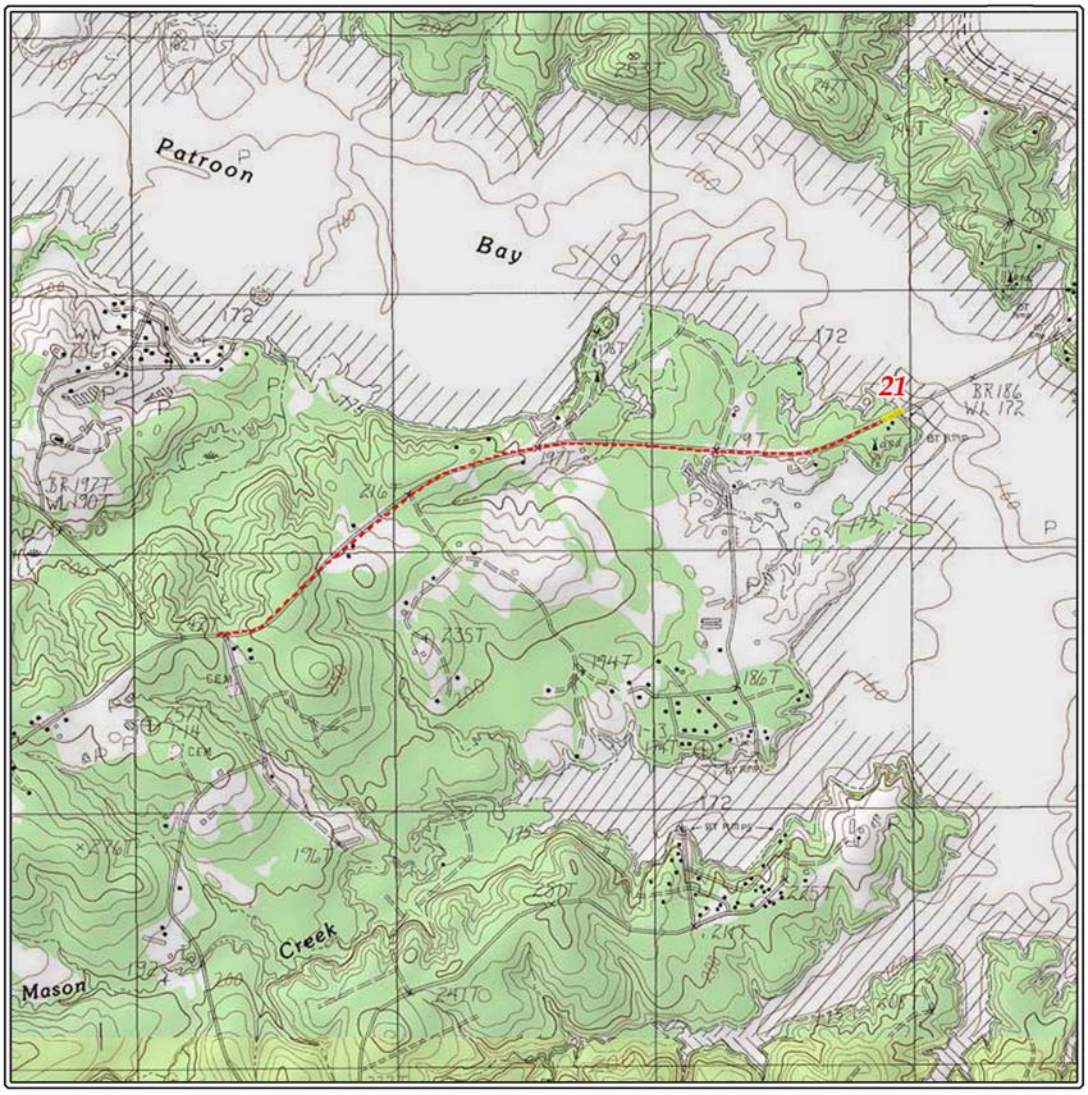
G-M WSC

D

Proposed Waterline

Proposed Investigation Area

BVRA



N

200 Meters

USGS East Hamilton , Tex.-La.
Quadrangle 3193-321

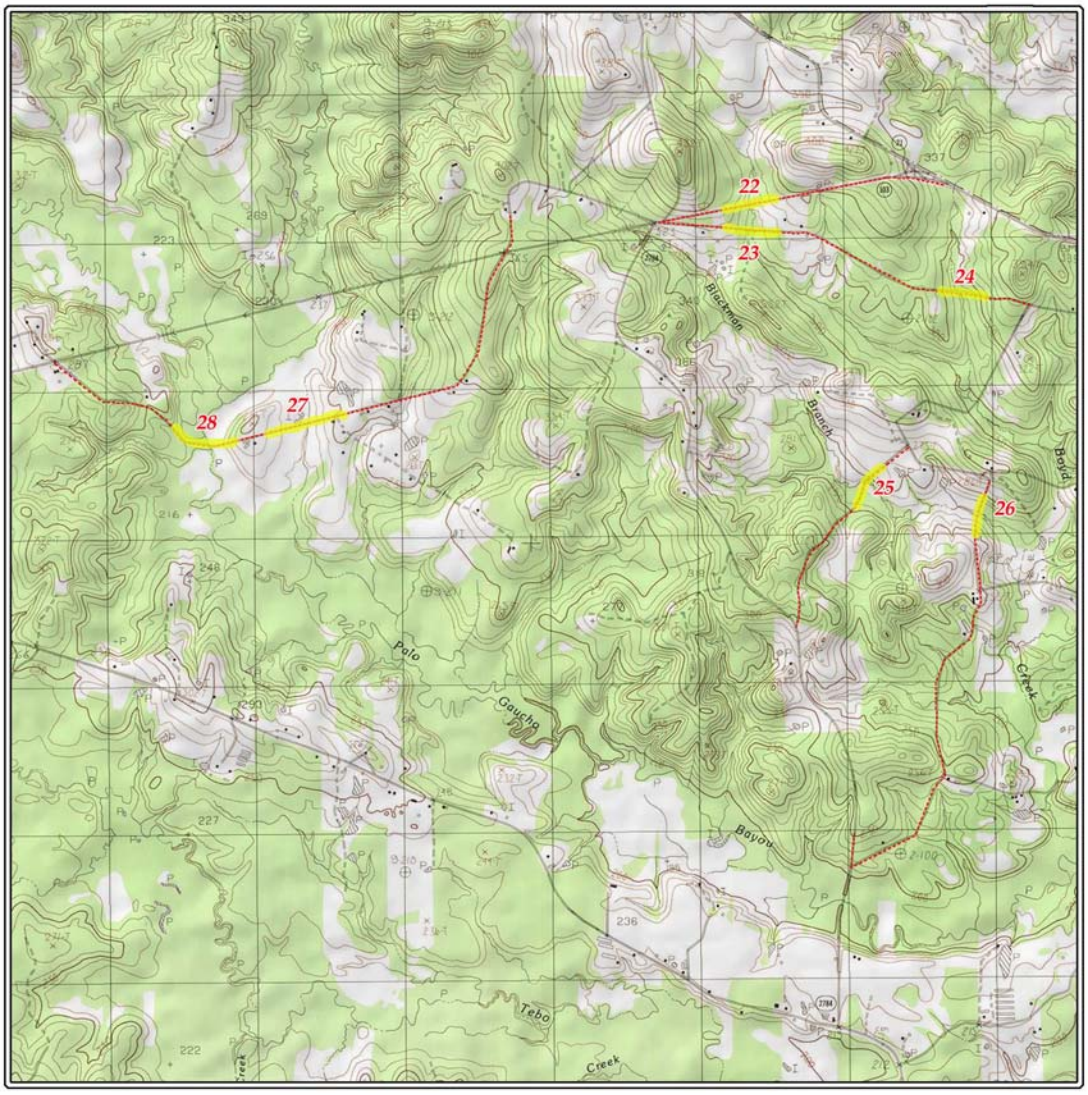
G-M WSC

Map E

Proposed Waterline

Proposed Investigation Area

BVRA



N

500 Meters

USGS Geneva, Texas
Quadrangle 3193-233

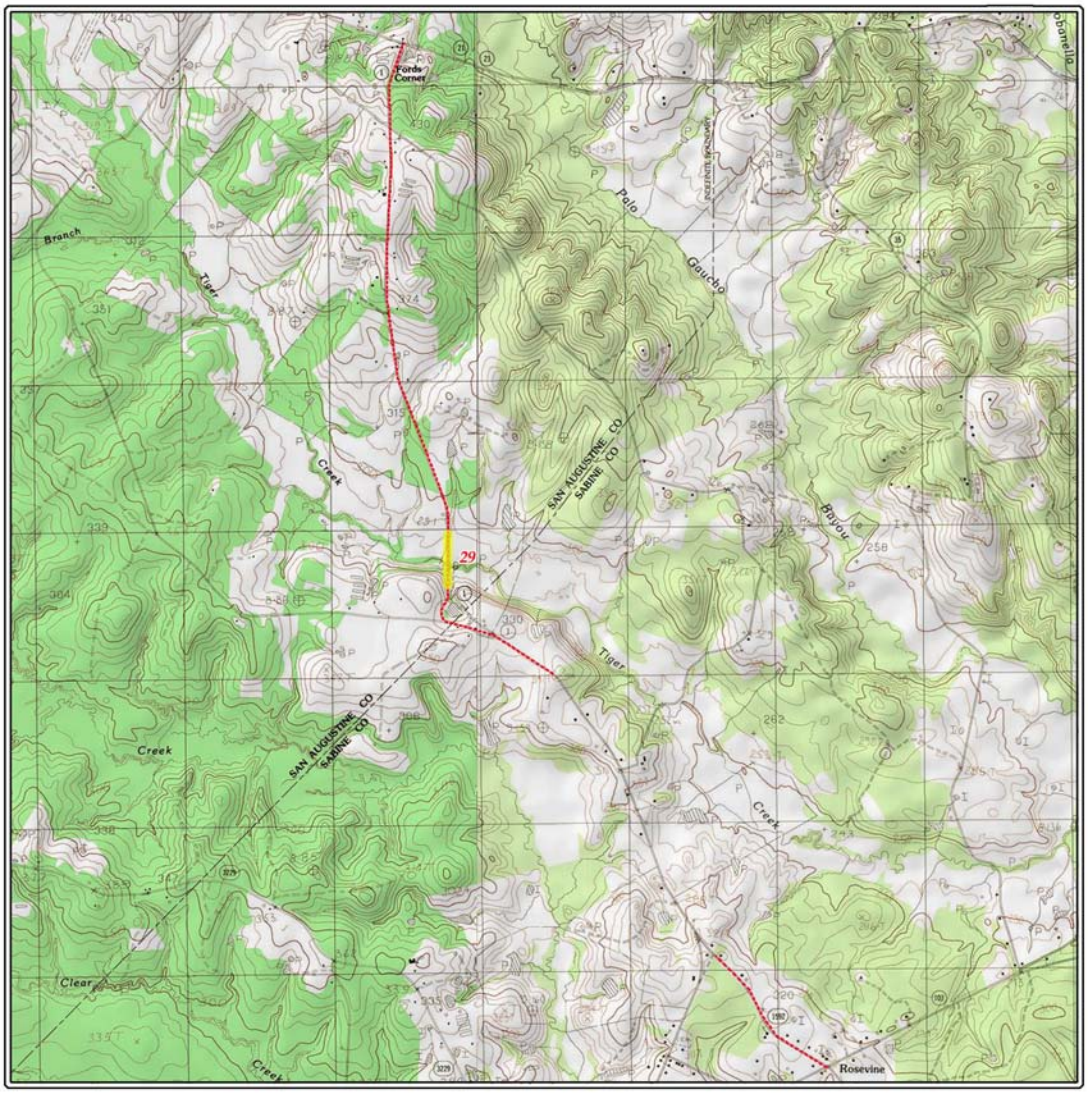
G-M WSC

Map F

Proposed Waterline

Proposed Investigation Area

BVRA



N

500 Meters

USGS Chinquapin and Geneva, Texas Quadrangles 3194-144 and 3193-233

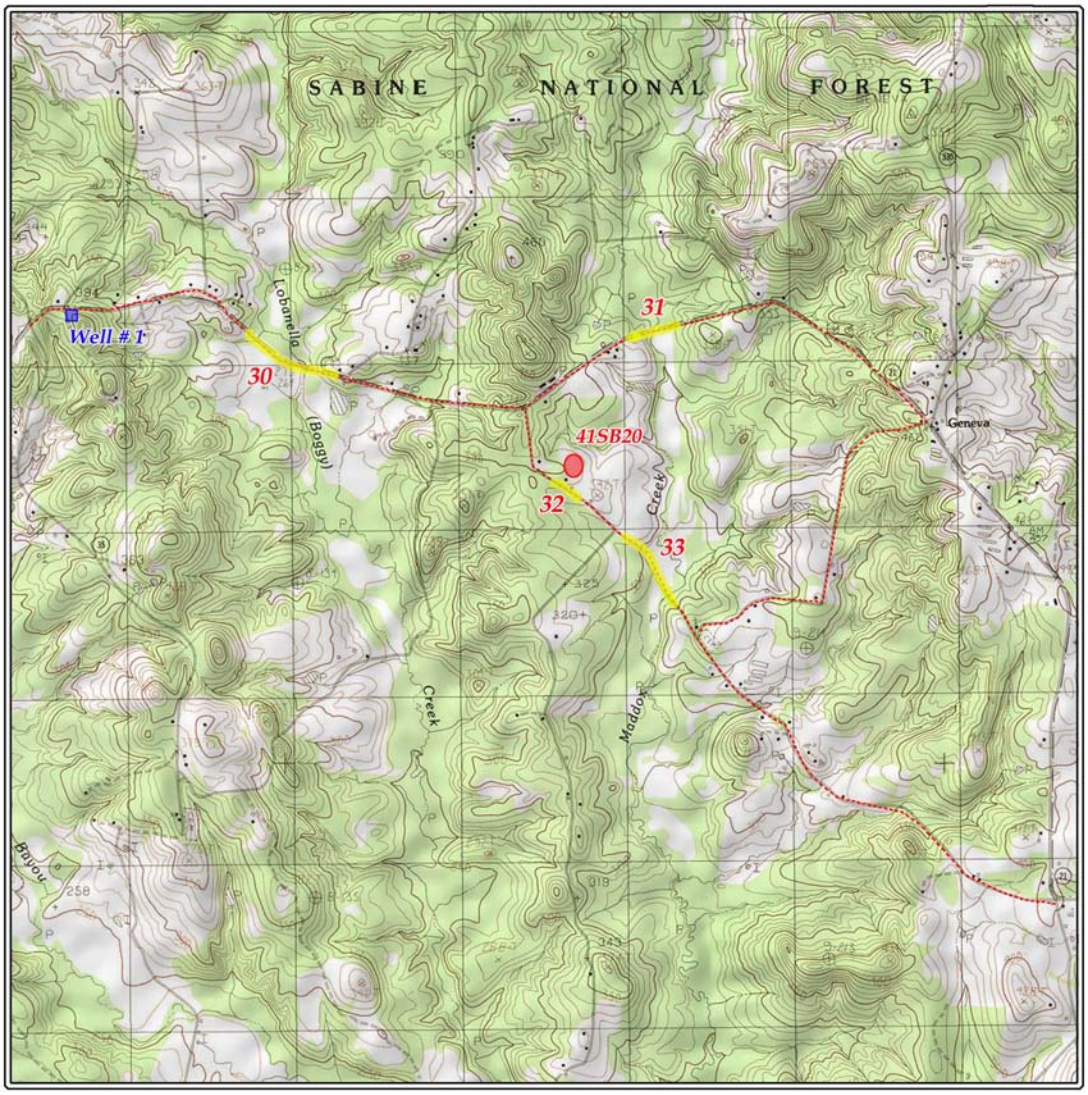
G-M WSC

Map G

Proposed Waterline

Proposed Investigation Area

BVRA



USGS Geneva, Texas
Quadrangle 3193-233

G-M WSC

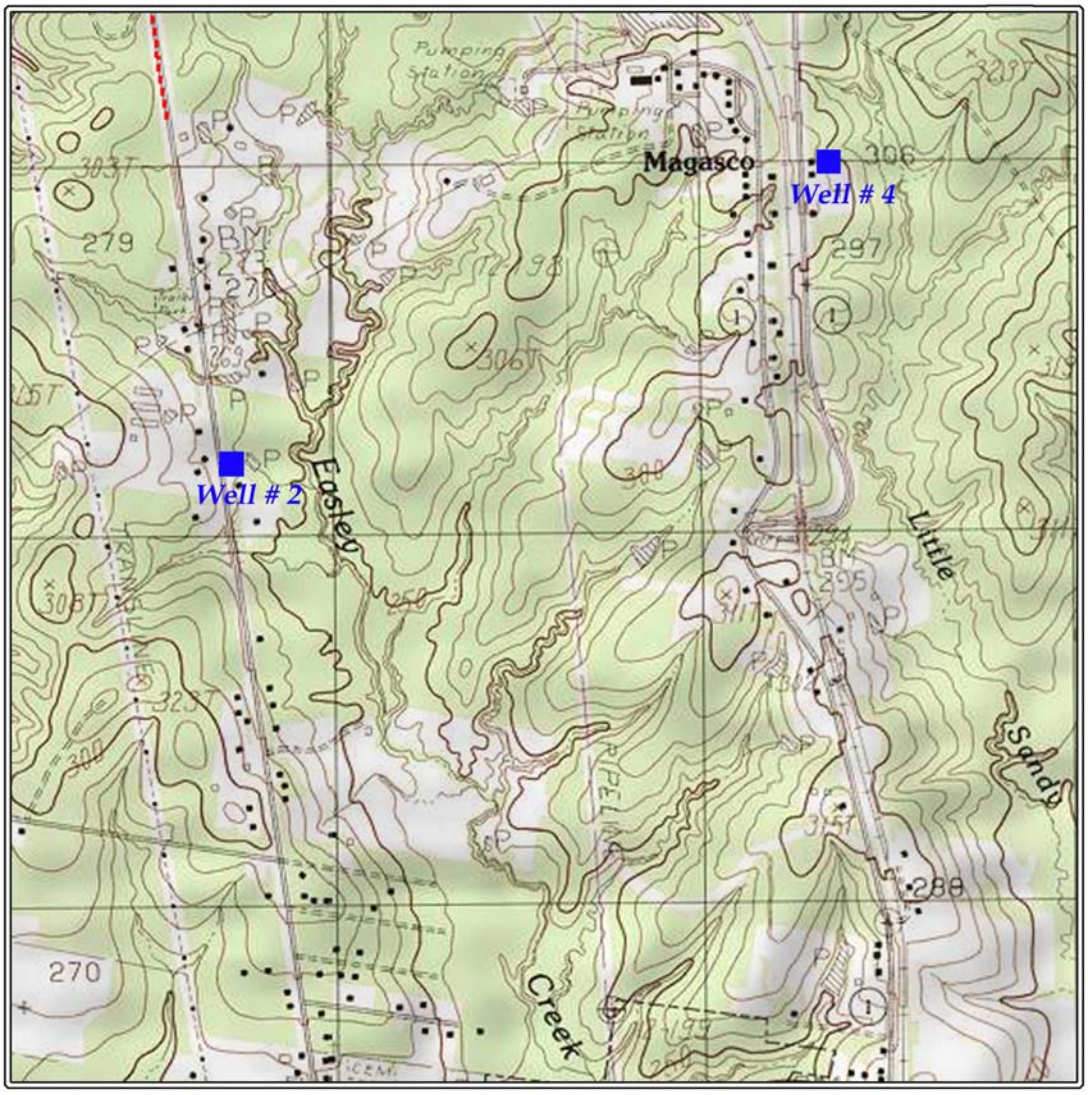
Map H

Proposed Waterline

Proposed Investigation Area

Proposed Well Location

BVRA



USGS Pineland North, Texas
Quadrangle 3193-232

G-M WSC

Map I

Proposed Waterline
Proposed Well Location

BVRA

APPENDIX II: AREAS ELIMINATED FROM SURVEY

Area 1

(surveyed - see *Results and Conclusions* above)

Area 2

State Highway 2024 crosses a minor stream at this location in Sabine County. No intact lower terraces were observed, and clay was noted at the surface overlying a very shallow sandy mantle. Therefore, archaeological survey was not recommended. This survey area is located on the Pineland North topographic quadrangle (Appendix I - Map A).

Area 3

State Highway 2024 crosses Bear Creek at this location in Sabine County. In this area the road is very disturbed by cutting of the hill, and clay was observed at the surface. Therefore, archaeological survey was not recommended. This survey area is located on the Pineland North topographic quadrangle (Appendix I - Map A).

Area 4

(surveyed - see *Results and Conclusions* above)

Area 5

State Highway 96 crosses a minor tributary at this location in Sabine County. No intact lower terraces were observed, and this is a low area that contained standing water at the time of this assessment. Therefore, archaeological survey was not recommended. This survey area is located on the Pineland North topographic quadrangle (Appendix I - Map A).

Area 6

State Highway 944 crosses Beef Creek at this location in Sabine County. No intact lower terraces were observed, and a large portion of the area was inundated by standing water. Therefore, archaeological survey was not recommended. This survey area is located on the Hemphill topographic quadrangle (Appendix I - Map B).

Area 7

This is an elevated area on the east bank of the crossing of State Highway 944 and Beef Creek within the Sabine National Forest in Sabine County. Sandy soil was observed at this location; therefore, archaeological survey was recommended for both sides of the road if the water line is placed outside the cleared ROW. Since the water line in this area will be placed within the cleared ROW, an archaeological survey was not required per a Memorandum of Understanding between the Texas Historical Commission and the United States Forest Service.* This survey area is located on the Hemphill topographic quadrangle (Appendix I - Map B).

Area 8

State Highway 944 crosses Indian creek at this location within the Sabine National Forest in Sabine County. A previously recorded prehistoric site (41SB234) is located on the east bank of the creek and the north side of the road. This site was recorded by archaeologists from the USFS in 1997 as a lithic scatter with an isolated historic artifact. Based on limited shovel testing and the absence of diagnostic artifacts and features, the age and research potential of this site is not known; therefore, the original recorders recommended additional work to determine its significance. BVRA, therefore, recommended shovel testing in this area if the water line is in undisturbed soil outside the ROW. Since the water line in this area will be placed within the cleared ROW, an archaeological survey was not required per a Memorandum of Understanding between the Texas Historical Commission and the USFS.* This survey area is located on the Hemphill topographic quadrangle (Appendix I - Map B).

Area 9

State Highway 944 crosses Staveyard Branch at this location within the Sabine National Forest in Sabine County. The highway ROW on both sides of the creek is very disturbed. Archaeological survey was recommended for the west bank of the creek if the water line is placed outside the ROW. Since the water line in this area will be placed within the cleared ROW, an archaeological survey was not required per a Memorandum of Understanding between the Texas Historical Commission and the USFS.* This survey area is located on the Hemphill topographic quadrangle (Appendix I - Map B).

Area 10

State Highway 944 crosses Pot Branch at this location within the Sabine National Forest in Sabine County. The highway ROW on both sides of the creek is very disturbed. Archaeological survey was recommended for the west bank of the creek if the water line is placed outside the ROW. Since the water line in this area will be placed within the cleared ROW, an archaeological survey was not required per a Memorandum of Understanding between the Texas Historical Commission and the USFS.* This survey area is located on the Hemphill topographic quadrangle (Appendix I - Map B).

Area 11

State Highway 87 crosses Nickols Creek at this location in Sabine County. The south side of the creek on both sides of the road was recommended for archaeological survey if the water line is placed outside the ROW on private property. The north side of the creek on both sides of the road was recommended for a closer inspection to determine if intact lower terraces are present and the water line is placed outside the ROW on private property.

The water line in this area will be placed on the west side of the road within disturbed Highway Department ROW. Therefore, archaeological survey was not warranted. This site is located on the Milam topographic quadrangle (Appendix I - Map C).

Area 12

State Highway 87 crosses a stream formed by the junction of Isaac Creek and Gaucho Bayou at this location in Sabine County. Previously recorded archaeological site 41SB24 is on the west side of the highway. This prehistoric site was recorded by G. E. Arnold in 1940 during his survey of East Texas for The University of Texas at Austin. He collected 10 pottery sherds, 5 chert projectile points, and 4 petrified wood projectile points from the surface of a deeply eroded slopes of the bluff above the north bank of a drainage he refers to as Causey Creek. Since this appears to be a significant site in very close proximity to the project area that has never been examined by a professional archaeologist, archaeological survey was recommended if the water line is placed in undisturbed soil outside the ROW in the vicinity of the site as depicted on the topographic map.

The water line in this area will be placed on the west side of the road within the disturbed Highway Department ROW. Therefore, archaeological survey was not warranted. This survey area is located on the Milam topographic quadrangle (Appendix I -Map C).

Area 13

State Highway 87 crosses Boregas Creek at this location in Sabine County. On the west side of the highway and north side of the creek prehistoric site 41SB27 was recorded by G. E. Arnold in 1940 during his survey of East Texas for The University of Texas at Austin. He collected 40 pottery sherds, 3 chert projectile points, and 3 petrified wood projectile points, a mano, and a possible celt from the surface of a sandy ridge above the north bank of the creek. Since this appears to be a significant site that has never been examined by a professional archaeologist, archaeological survey was recommended if the water line is placed in undisturbed soil outside the ROW in this area.

The water line in this area will be placed on the west side of the road within disturbed Highway Department ROW. Therefore, archaeological survey was not warranted. This survey area is located on the Milam topographic quadrangle (Appendix I - Map C).

Area 14

State Highway 3121 crosses Toledo Bend Reservoir and enters the community of Harborlight in Sabine County just before the termination of the water line in this area. This is a very disturbed area (ditches and utilities) due to development in and out of the ROW. The highway does not cross any major streams, and this segment of the water line is viewed by BVRA as a low probability area for the presence of a significant archaeological site. Therefore, no archaeological survey was recommended. This survey area is located on the Milam topographic quadrangle (Appendix I - Map D).

Area 15

State Highway 3121 runs north south through Mid Lake Village in Sabine County in the direction of Toledo Bend Reservoir to the south. Although there are no major creek crossings in this upland setting, there is a previously recorded archaeological site (41SB34) to the west of the highway overlooking the reservoir. G. E. Arnold recorded this prehistoric site in 1940 during his survey of East Texas for The University of Texas at Austin. He observed mussel shell and recorded a collection of 418 pottery sherds and 3 projectile points found on the surface by the landowner. Based on the presence of "numerous bones" on a disturbed surface, Arnold believes there are burials present. Since this appears to be a significant site that has never been examined by a professional archaeologist, archaeological survey was recommended if the water line is placed in undisturbed soil outside the ROW in this area. The water line will be placed on the west side of the bridge and buried in the embankment that projects into Palo Gaucho Bay. All construction will take place within the disturbed Highway Department ROW. Therefore, survey was not warranted. This survey area is located on the Milam topographic quadrangle (Appendix I - Map D).

Area 16

State Highway 3121 crosses an existing transmission line at this location just before this highway ends at State Highway 21 in Sabine County. Archaeological site 41SB72 was recorded by archaeologists from Southern Methodist University (SMU) in 1977 during a survey for the transmission line. The site is described on the site form as a dense scatter of small chert and quartzite flakes. In a letter from Beverly Mitchum, representing the Archaeology Research Program at SMU dated October 21, 1977, it is stated that the surface artifacts found during the survey are believed to have been brought to the area during construction of the transmission line. Therefore, the original recommendation for further testing is withdrawn. BVRA concurred and did not recommend archaeological survey in this area. This survey area is located on the Milam topographic quadrangle (Appendix I - Map D).

Area 17

State Highway 21 crosses Allen Creek at this location in Sabine County. Clay was observed at the surface, and the hills have been cut into by road construction. This creek crossing is viewed by BVRA as a low probability area for the presence of a significant archaeological site; therefore, no archaeological survey was recommended. This survey area is located on the Milam topographic quadrangle (Appendix I - Map D).

Area 18

State Highway 21 crosses Beaver Creek at this location in Sabine County. Both sides of the creek are very disturbed, and clay was observed at the surface. This creek crossing is viewed by BVRA as a low probability area for the presence of a significant archaeological site; therefore, no archaeological survey was recommended. This survey area is located on the Milam topographic quadrangle (Appendix I - Map D).

Area 19

State Highway 21 crosses Wilson Branch at this location in Sabine County. No intact lower terraces were noted, and clay was observed at the surface. This creek crossing is viewed by BVRA as a low probability area for the presence of a significant archaeological site; therefore, no archaeological survey was recommended. This survey area is located on the Milam topographic quadrangle (Appendix I - Map D).

Area 20

An unnumbered road crosses a tributary of Corsey Creek at this location in Sabine County. This is a minor part of this drainage and is a low probability area for the presence of a significant archaeological site. Therefore, no archaeological survey was recommended. This survey area is located on the Milam topographic quadrangle (Appendix I - Map D).

Area 21

State Highway 276 traverses the uplands above Patroon Bay created by Patroon Bayou in Sabine County. This is a very disturbed area through development associated with road construction and associated recreational areas. Archaeological sites 41SB12 and 41SB15 beneath the waters of Patroon Bay suggest the high probability areas are now inundated by the bay. This segment of the water line is viewed by BVRA as a low probability area for the presence of a significant archaeological site; therefore, no archaeological survey was recommended. This survey area is located on the East Hamilton topographic quadrangle (Appendix I - Map E).

Area 22

State Highway 103 crosses a tributary of Boyd Creek at this location in Sabine County. This crossing is at a minor part of this drainage. This is a low probability area for the presence of a significant archaeological site. Therefore, no archaeological survey was recommended. This survey area is located on the Geneva topographic quadrangle (Appendix I - Map F).

Area 23

Flat Road crosses a tributary of Boyd Creek at this location in Sabine County. This is a minor part of this drainage and is a low probability area for the presence of a significant archaeological site. Therefore, no archaeological survey was recommended. This survey area is located on the Geneva topographic quadrangle (Appendix I - Map F).

Area 24

Flat Road crosses the upper reaches of a tributary of Boyd Creek in Sabine County. Clay was observed at the surface on both sides of the creek. This segment of the water line is viewed by BVRA as a low probability area for the presence of significant archaeological sites; therefore, no archaeological survey was recommended. This survey area is located on the Geneva topographic quadrangle (Appendix I - Map F).

Area 25

Boyette Lane crosses Blackman Branch at this location in Sabine County. The north side of the creek on both sides of the road appear to contain sandy soil; therefore, these areas were recommended for archaeological survey if the water line is placed on private property outside the ROW. According to the Project Engineer, the water line in this area will be placed within the disturbed Highway Department ROW. Therefore, archaeological survey was not warranted. This survey area is located on the Geneva topographic map (Appendix I - Map F).

Area 26

An unnumbered road crosses the upper reaches of a tributary of Boyd Creek at this location in Sabine County. This is a deeply entrenched road with a very disturbed ROW. Due to thick woods it was not possible to assess the areas outside the ROW; therefore, a surface inspection and/or shovel testing was recommended if the water line is placed outside the ROW on private property. According to the Project Engineer, the water line in this area will be placed within the disturbed Highway Department ROW. Therefore, archaeological survey was not warranted. This survey area is located on the Geneva topographic quadrangle (Appendix I - Map F).

Area 27

Parish Barrett Circle Road crosses a tributary of Palo Gaucho Bayou at this location in Sabine County. Archaeological survey is recommended for the landform on the east side of the creek if placed outside the ROW on private property. According to the Project Engineer, the water line in this area will be placed within the disturbed Highway Department ROW. Therefore, archaeological survey was not warranted. This survey area is located on the Geneva topographic quadrangle (Appendix I - Map F).

Area 28

State Highway 103 crosses Palo Gaucho Bayou at this location in Sabine County. This is a gravel road with a limited ROW. Clay was observed at the surface on both sides of the creek. This segment of the water line is viewed by BVRA as a low probability area for the presence of significant archaeological sites; therefore, no archaeological survey was recommended. This survey area is located on the Geneva topographic quadrangle (Appendix I - Map F).

Area 29

(surveyed - see *Results and Conclusions* above)

Area 30

Lobanella (Boggy) Creek crosses State Highway 21 at this location in Sabine County. No intact lower terraces or historic sites were observed on either side of the creek. Much of the road where it crosses the creek is on a slope created by road construction. This creek crossing is viewed by BVRA as a low probability area for the presence of significant archaeological sites; therefore, no archaeological survey was recommended. This survey area is located on the Geneva topographic quadrangle (Appendix I - Map H).

Area 31

Lee Arnold Road crosses a minor stream at this location in Sabine County. No intact terraces or other landforms suitable for a significant archaeological site were observed within the disturbed ROW or on private property. This creek crossing is viewed by BVRA as a low probability area for the presence of significant archaeological sites; therefore, no archaeological survey was recommended. This survey area is located on the Geneva topographic quadrangle (Appendix I - Map H).

Area 32

(surveyed - see *Results and Conclusions* above)

Area 33

Maddox Creek crosses State Highway 21 at this location in Sabine County. No intact lower terraces were observed on the north side of the creek. A red clay was observed at or very near the surface throughout the area on the south side of the creek. Part of the ROW at the south end has been greatly disturbed by road construction involving removal of part of the landform for road access. This creek crossing is viewed by BVRA as a low probability area for the presence of significant archaeological sites; therefore, no archaeological survey was recommended. This survey area is located on the Geneva topographic quadrangle (Appendix I - Map H).

_____

* All water line construction within cleared rights-of-way within the Sabine National Forest are not subject to archaeological survey according to a Memorandum of Understanding among the United States Department of Agriculture, National Forest Grasslands in Texas, the Texas Historical Commission, State Historic Preservation Officer, and the Advisory Council on Historic Preservation dated September 28, 1995 (John E. Ippolito, Staff Archeologist at the United States Forest Service, Lufkin District, personal communication to William E. Moore, June 14, 2004). Therefore, those areas within the forest where construction will enter into wooded areas in the ROW or in wooded areas outside the ROW must be subjected to an archaeological survey.

APPENDIX III: SHOVEL TEST LOG

Test	Depth	Comments
01	30 cm	Well site 3; surface visibility 20%; clay at 30 cm
02	100 cm	Survey Area 4; surface visibility 100%; clay at 100 cm
03	30 cm	Survey Area 4; surface visibility 100%; clay at 30 cm
04	30 cm	Survey Area 4; surface visibility 80%; clay at 30 cm
05	30 cm	Survey Area 4; surface visibility 80%; clay at 30 cm
06	30 cm	Well site 2; surface visibility 50%; clay at 30 cm
07	30 cm	Well site 4; surface visibility 90%; no clay encountered
08	100 cm	Survey Area 29; surface visibility <10%; dug in sand
09	100 cm	Survey Area 29; surface visibility <10%; dug in sand
10	30 cm	Well site 1; surface visibility 80%; clay at 30 cm
11	30 cm	Survey Area 32; surface visibility 20%; clay at 30 cm
12	30 cm	Survey Area 32; surface visibility 20%; clay at 30 cm
13	10 cm	Survey Area 32; surface visibility 20%; clay at 10 cm
14	10 cm	Survey Area 32; surface visibility 20%; clay at 30 cm