BOY SCOUTS OF AMERICA®
LONGHORN COUNCIL

Shotgun Sports and Hunter Education Training Center

Sid Richardson Scout Ranch

Runaway Bay, Wise County, Texas

Draft Environmental Assessment

Prepared for

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and

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CHAPTER 1
PROJECT INTRODUCTION, NEED, AND PURPOSE

1.1 PROJECT INTRODUCTION

The Texas Parks and Wildlife Department (TPWD), in partnership with the Longhorn Council BSA (LHC), is seeking the U.S. Fish and Wildlife Service's (Service) approval (through Federal Assistance grant) for a proposed project to construct, operate, and maintain an outdoor Shotgun Sports and Hunter Education Training Center at Sid Richardson Scout Ranch.

The Longhorn Council proposes to construct, operate, and maintain an outdoor shotgun sports center at Sid Richardson Scout Ranch (SR2) for hunter education instruction, for training scouts and the public in safe and responsible shotgun sports, and to provide Scouts and the public a safe, environmentally friendly shotgun sports experience. The Camp is located at Boy Scout Road, Runaway Bay, Texas 76426 in Wise County (**Figure 1**).

This Environmental Assessment (EA) has been prepared to evaluate the potential effects of the Proposed Action. This project would be funded by the Service's Wildlife and Sport Fish Restoration (WSFR) Program.

1.2 DESCRIPTION OF PROPOSED ACTION

A proposed non-toxic shot only shotgun sports center with an eight-acre footprint would be constructed within the Longhorn Council's existing Sid Richardson Scout Ranch property comprising approximately 2500 acres. The project site consists of two parts divided by a gravel road (**Figure 7A**). The first is the site of a sporting clays walk-through trail range that will include approximately 2.5 acres straddling the edge of a forest area and a grassland area. The second is the location of a training facility building and three side-by-side trap and combination ranges that will cover roughly 5.5 acres on mixed patches of forest and grassland. Hiking trails and pipeline corridors exist in each part of the proposed area.

The site's grasslands which include little bluestem, hairy tridens, prickly pear, field brome, elbow bush, and broomweed, and forested areas which include cedar elm, live oak, mesquite, ash, eastern red cedar, and post oak trees will be selectively cleared with an emphasis on keeping and developing natural, drought-resistant, herbaceous ground cover and retaining healthy trees within the footprint to provide shade for shotgun sports activities (**Figure 2**). Access to the site for construction and use will be by existing gravel roads and walking trails.

The project will involve general construction including general site work and prep, the building of a sporting clays walk-through trail, the building of three side-by-side ATA Trap ranges, with the center of the three ranges also serving as a combination skeet and five-stand range, and the construction of a training building (see **Appendix H - Drawings and Plans**.).

The sporting clays walk-through trail will consist of 9 shooting stations, each with a thrower house, thrower, and a handicapped accessible roofed deck or shooting cage connected by a handicapped accessible trail.

The standard ranges will consist of three side-by-side trap ranges, with the center of the three ranges also serving as a combination skeet and five-stand range. Each of the three ranges will have standard concrete flat work sidewalks based on NRA and ATA design standards and drawings in the 2012 NRA Range Source Book. The trap ranges will have two thrower houses. The center range will also be a combination range and will have six thrower houses, including 2

towers, and 8 throwers. The three ranges will be separated by protective wooden wing walls (safety walls) built from drawings in the 2012 NRA Range Source Book. The thrower houses, lighting, range flag poles, shotguns racks, shooting cages, etc. will also be based on the drawings in the 2012 NRA Range Source Book (see **Appendix H - Drawings and Plans**.).

The Training building will be contractor built (design-build) based on a modified floor plan for the L-shaped NRA Trap & Skeet Range Building in the 2012 NRA Range Source Book. The roof of the building will extend over the interior of the "L" shape in order to create a sheltered porch instructional area. The inside will include 2 bathrooms, a vault and gun safe, a thrower repair and ammunition storage room with a roll-up door, an office, and a large classroom. A septic system will be installed for the building (a permit was granted by Tarrant Regional Water Board).

Pending approval, the entire range planned for the project will be open for educational purposes and groups - especially wildlife and ranch management (Ag 381) and 4-H teams and Scouts as well as the shooting public, during the week from 9:00 a.m. to 8:30 p.m. Monday through Thursday, and from 9:00 a.m. to 5:00 p.m. Friday.

Every weekend we will reserve one range solely for educational groups and the shooting public (by reservation). Exceptions will be 3 managed deer hunt weekends when the entire property is closed, several major US holidays, 3 Saturdays that host our 3 annual orienteering competitions, and possibly certain times during the operation of our Scout summer camp from mid-June to mid-July.

Hunter Education and other classes will receive priority for use of the proposed training building and for range time.

Range S.O.P.'s will include requirements for groups to bring their own Range Safety Officers, except on one Saturday per month.

Safety Note: Safety improvements will include shotgun range safety fencing and projectile containment baffles between the three proposed Trap & Combo ranges, as well as improved secure storage for ammunition and clays.

1.3 PROJECT NEED

A large proportion of the individuals that would be served by this project come from low-income and ethnically diverse populations living in the geographical area, in the 21 counties served by the Longhorn Council, and in groups that visit the camp from other areas around Texas and the United States. These individuals do not have the opportunity to learn about and develop shotgun sports skills if this facility is not constructed. These participants will learn and master firearms safety, hunting and conservation education, and responsible and ethical firearms handling associated with shotgun sports. Individuals will be able to come away more competent and confident in their abilities. This location in Wise County would provide the nearby community with access to an affordable range as well as access to shotgun sports safety, hunting and conservation training classes.

Boy Scout youth, adult Scout leaders, and community participants will have the opportunity to participate in a progressive shotgun sports program by age level that is accompanied by learning about range setup; velocity; movement; Science, Technology, Engineering and Mathematics (STEM); and safety. The curriculum builds self-confidence and allows individuals from lower socioeconomic households to be exposed to STEM learning at little to no cost through participation in community outreach programming.

1.4 PROJECT PURPOSE

1. Provide an outdoor shotgun sports experience to 2000+ scouts and community youth in grades K-12 as well as other members of the general public within the first twelve months of full operation of the shotgun sports education center after construction is completed.

2. Provide a location for hunter education training to at least 500 people annually and in the first full twelve months of operation after construction is completed in 2019.

3. Provide affordable shotgun sports opportunities to 500 youth from low socioeconomic populations annually.

1.5 PROJECT FUNDING

Financial assistance for this project would be provided by funding through a grant under the USFWS WSFR Program, administered by TPWD. . The WSFR program is authorized by the Federal Aid in Wildlife Restoration Act (Pittman-Robertson Act) of 1937. The WSFR Program provides grant funds to state fish and wildlife agencies for projects to restore, conserve, manage, and enhance wild birds and mammals and their habitat. Projects also include providing public use and access to wildlife resources, hunter education, and development and management of ranges.

1.6 SCOPING SUMMARY

Informal scoping was conducted at meetings of adult Scout volunteers who use the property, and is being conducted through social media, flyers, and web announcements of informational open house meetings.

May 9, 2019 and June 5, 2019 open house meetings were held at SRSR. Fliers, phone calls, and social media announced the open house. Jeff Peters was prepared to speak about the project and plans for the facility. No one showed up. Public notice of the two open houses scheduled on May 9, 2019, and June 5, 2019, was posted at the following businesses in Runaway Bay, TX:

- One Stop of Texas (601 US-380, Bridgeport, TX 76426)
- Lakeside Grill & Grocery (250 US-380 W, Runaway Bay, TX 76426)
- Legacy Texas Bank (1055 Highway 380 West, Runaway Bay, TX 76426)
- First State Bank (102 Port O Call Dr, Runaway Bay, TX 76426)

Notice was also posted at the main facilities of SRSR. The scheduled open house meetings were planned to give the public an opportunity to view and comment on the proposed shotgun range project at Sid Richardson Scout Ranch.

CHAPTER 2
ALTERNATIVES ANALYSIS

The proposed action involves the creation of a Shotgun Sports and Hunter Education Training Center. Two alternatives were considered, which include a Preferred Alternative and a No Build Alternative. Because the purpose of the proposed action is, in part, to expand uses of an existing Boy Scouts of America facility, off-site alternatives were not considered.

2.1 ALTERNATIVE 1 – PREFERRED ALTERNATIVE

The Preferred Alternative would include the construction of the shotgun education center as described in Section 1.2. This alternative would address the purpose and need for action. It would address the need of providing safe and educational opportunities to the scouts and the ethnically diverse and economically challenged local population.

2.2 ALTERNATIVE 2 – NO BUILD ALTERNATIVE

A No Build Alternative would result in no action being taken. This alternative would not address the need and purpose of the project. Under the No Build Alternative, the area would be utilized in a manner similar to existing land use patterns, primarily hiking, grazing, and deer hunting. The proposed project area would remain as a mix of grassland and forest. Consequently, the No Build Alternative would result in continued limited hunter safety education and outdoor shotgun range opportunities for scouts and the ethnically diverse and low socioeconomic population in the Wise County area. The No Build Alternative would limit opportunities for the general public to experience shotgun sports and hunter education training.

CHAPTER 3
AFFECTED ENVIRONMENT

3.1 PHYSICAL ENVIRONMENT

Sid Richardson Scout Ranch is located in the northwest corner of Wise County in north Texas (**Figure 1**). The Camp is located near the town of Runaway Bay on Lake Bridgeport on the north side of Highway 380 west of Bridgeport (7 miles) and Decatur (22 miles) and east of Jacksboro (19 miles). The Camp entrance gate is accessed on Boy Scout Road, and is 2.25 miles north of Hwy 380. The project site is located 5 miles from the camp entrance gate on the camp's main gravel road. The site is located in an isolated area of the camp, 0.7 miles from the nearest Camp Ranger employee residence and 1.3 miles by air from the north end of the nearest small residential community of Hideaway Bay. Representative site photographs are in **Appendix A**.

3.1.1 Climate

The Wise County climate is humid subtropical with hot summers and is characterized by a wide annual temperature range. Winters are mild, but northers occur about 3 times each month during this period, and often are accompanied by sudden drops in temperature. Periods of extreme cold that occasionally occur are short-lived, so that even in January mild weather occurs frequently. Characteristically, hot spells in summer are broken into three-to-five day periods by thunderstorm activity. Nighttime summer low temperatures exceed 80°F. Summer daytime temperatures frequently exceed 100°F. Precipitation ranges from less than 20 to more than 50 inches, with an average of 39.84 inches. Throughout the year, rainfall occurs more frequently during the night. Usually, periods of rainy weather last for only a day or two, and are followed by several days with fair skies. A large part of the annual precipitation results from brief thunderstorm activity. Snowfall is rare, averaging 1 inch annually (NOAA, 2018).

3.1.2 Geology and Soils

Geologically, the proposed project area is underlain by the Chico Ridge Limestone formation. Total thickness of the formation is 170 to 200 feet. The outcrop is very competent limestone rock with no to very thin soil cover. (**Appendix F - Geology Report**). Soil in the proposed project area is 40 percent BtC Bonti fine sandy loam, on 1 -5 % slopes, in the center, east, and southeast of the site. A typical BtC Bonti fine sandy loam soil profile has surface layers of a slightly acid, fine sandy loam 4 to 10 inches thick. A layer of moderately acid, sandy clay at a depth of 10 to 27 inches. The underlying material is limestone bedrock at 27 to 80 inches. These soils are well drained with a Farmland classification of "Not prime farmland" (USDA, 2016).

Forty percent of the soil on the north and west edge of the proposed project area is PaC—Palo Pinto, extremely stony silty clay loam, on 1-8 % slopes. Typical soil profile begins with surface layers of neutral, extremely stony silty clay loam from 4 to 15 inches thick. The underlying material is limestone bedrock from a depth of 15 inches. Twenty percent of the soil, in a strip on the west edge of the proposed project area along a forest and grassland border, is HeB—Hensley very stony loam, on 1 to 3 percent slopes. A typical soil profile begins with surface layers of neutral, very stony loam to 4 inches thick. A second layer occupies a depth to 18 inches and consists of slightly alkaline, clay loam. The underlying material is limestone bedrock from a depth of 18 or more inches. All three soil types are well drained, with a farmland classification of "Not prime farmland" (USDA, 2016), suitable for grazing, wildlife, or hiking). (**Figure 6**).

3.1.3 Prime and Unique Farmland Soils

The project location does not contain prime or unique farmland soils (USDA, 2016).

3.1.4 Surface Water

No surface water features are present within the proposed project area. Stormwater run-off from the proposed project area follows the gentle surface slope in the grasslands on the north and west sides of the project, dropping more steeply through approximately 0.3 mile of heavy forest to Lake Bridgeport. (**Figure 4**, **Figure 5**).

3.1.5 Groundwater

The Cross Timbers Aquifer is a minor aquifer located in north central Texas. The aquifer consists of four Paleozoic-age water-bearing formations including, from oldest to youngest, the Strawn, Canyon, Cisco, and Wichita groups. The aquifer is primarily composed of limestone, shales, and sandstones. The Cross Timbers aquifer was designated a minor aquifer by Texas Water Development Board in August 2017. The outcrop area of these formations covers nearly 11,800 square miles, extending from the Red River southward to the Colorado River. The geologic formations are primarily composed of limestone, shale, and sandstone. Groundwater occurs under mostly water table (or unconfined) conditions, and is typically discontinuous within isolated sandstone layers. (XT Aquifer, 2017).

3.1.6 Topography

The U.S. Geological Survey (USGS) Wizard Wells 7.5-minute topographic quadrangle map indicates that the proposed project area is a ridge top plateau (**Figure 5**). Elevations for the project area range from 1010 feet above mean sea level (AMSL) to 1020 feet AMSL to the east at the proposed location of the training center and septic field. The slope of the project area soil type ranges from 3 to 8 percent (USDA, 2016 **Figure 6**).

3.1.7 Floodplains

Federal Emergency Management Agency (FEMA) maps display the documented flood zones of various water bodies and flood prone areas. According to FEMA, the entire proposed project area lies outside of FEMA-designated floodplain zones. The nearest floodplain is located downslope approximately 0.4 miles to the west (FEMA, 2014) (**Figure 3**).

3.2 BIOLOGICAL ENVIRONMENT

The proposed project is located in the Texas Blackland Prairies Level IV Ecoregion of Texas (Griffith et al. 2004). This region contains a higher percentage of cropland than adjacent regions; pasture and forage production for livestock is common. Large areas of the region are being converted to urban and industrial uses. Typical game species include mourning dove and northern bobwhite on uplands and eastern fox squirrel along stream bottomlands.

The proposed project site is located on a portion of Lake Bridgeport in Wise County, Texas. Lake Bridgeport is a man-made, freshwater reservoir located on the West Fork Trinity River. Owned by the Tarrant Regional Water District, the water impounded within the lake is used for flood control, residential, and commercial sales, irrigation, and recreation. The Boy Scouts own and operate the property located within the project area. This property currently encompasses a dump-site and an existing shooting range (See **Appendix B**).

3.2.1 Vegetation

Grasslands and forested areas characterized by outcroppings of limestone glade make up the project site. Cedar elm (*Ulmus crassifolia*), live oak (*Quercus virginiana*), mesquite (*Prosopis glandulosa*), ash (Fraxinus albicans), eastern red cedar (Juniperus virginiana), and post oak (Quercus stellata) are the dominant trees. Dominant herbaceous and shrub species include fragrant sumac (*Rhus aromatica*), elbow bush (*Forestiera pubescens*), broomweed (*Amphiachyris dracunculoides*), little bluestem, hairy tridens (*Erioneuron pilosum*), prickly pear (*Opuntia sp*.), and field brome *(Bromus arvensis*) (See **Appendix B**).

3.2.2 Threatened and Endangered Species

A threatened and endangered species habitat survey was conducted to assess the existing conditions in the proposed project area. A current list of the state and federally listed threatened and endangered species and their preferred habitats for Wise County, Texas was obtained from TPWD and USFWS databases. The threatened and endangered species lists were used to determine potential for listed species to occur in the proposed project area (**Appendix B**).

The Texas Natural Diversity Database (TXNDD) lists no species occurrences within or nearby the proposed project area. No designated or critical habitat (50 CFR Parts 17 and 226) exists at the project location. No threatened or endangered species or species of concern were observed during the field surveys conducted by SWCA Environmental Consultants (SWCA). **Table 1** presents information regarding the presence or absence of their habitat within the proposed action area.

According to the USFWS species list for Wise County, two federally-listed threatened, one endangered, and one candidate species could occur within the project area: whooping crane (*Grus americana*; endangered), piping plover (*Charadrius melodus;* threatened), red knot (*Calidris canutus rufa;* threatened), and monarch butterfly (*Danaus plexippus*; candidate). (USFWS 2021). In this location, the piping plover and red knot only need to be considered for wind energy projects as they are only migrants through Wise County. No critical habitat for the Monarch Butterfly, a Candidate species, has been designated. Although the bald eagle is delisted, it is still protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. While the USFWS maintains regulatory authority over federally-listed species, the TPWD authority is only applicable when state land or funds are utilized. **Table 1** lists all federal and state listed species that occur within Wise County, Texas." (See **Appendix B**).

WHOOPING CRANE (*Grus Americana*) (ENDANGERED)

The Texas population of wild whooping cranes spend their summers in northern Alberta, Canada and winter along the Texas Gulf Coast. In Texas, the species winters on salt flats, marshes, and along barrier islands in and immediately adjacent to the Aransas National Wildlife Refuge on the mid-Texas coast (Matthews and Moseley 1990; Campbell 2003). During migration stopovers, whooping cranes utilize freshwater marshes, wet prairies, grain and stubble fields, shallow lakes, and lagoons with good horizontal visibility, water depth of 12 inches or less, and wetlands of 1/10 of an acre or larger for roosting (Armbruster 1990; Howe 1989). No habitat of this description falls within the project location. The nearest observation of whooping cranes that we are aware of occurred in 2013 in Denton County.

Whooping cranes migrate during both spring and fall through a relatively narrow corridor that basically follows a straight line through the Great Plains, with the cranes traveling through Alberta, Saskatchewan, extreme eastern Montana, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas according to the Canadian Wildlife Service and USFWS. The primary migration corridor is approximately 200 miles wide. This site is located within the migration corridor of the whooping crane but no layover habitat exists within 5 miles of the project site.

BALD EAGLE *(Haliaeetus leucocephalus)* (PROTECTED; NOT THREATENED OR ENDANGERED)

Typical breeding habitat for the bald eagle in Texas is in and around reservoirs, large lakes and rivers, marshes and swamps and along the coast. Bald eagles were recorded in 2016 on both the north and south end of Lake Bridgeport, approximately five miles from the project site. Resting habitat occurs within the project site but no nesting habitat. No bald eagles have been observed at or near the project site.

Table 1. Federal and state listed threatened and endangered species with potential to occur in the Proposed Action Area

Class	Name		Federal Status	State Status	Range or Habitat Requirements	Potential for Occurrence	Determination of Effect
	Common	Scientific					
Birds	Bald Eagle	*Haliaeetus leucocephalus*	DL	DL	Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds.	Unlikely to occur	No effect
	Peregrine Falcon	*Falco peregrinus*	DL	DL	Both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F. p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable from a distance, reference is generally made only to the species level; see subspecies for habitat.*p. anatum* subspecies for habitat.	Unlikely to occur	No effect
	Piping Plover	*Charadrius melodus*	T	T	Wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats.	Unlikely to occur; only need to be considered for wind projects	No effect
	Red Knot	*Calidris canutus rufa*	T	T -	Red knots migrate long distances in flocks northward through the contiguous United States mainly April-June, southward July-October. The Red Knot prefers the shoreline of coast and bays and also uses mudflats during rare inland encounters. Wintering Range includes- Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kennedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy Counties. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and tidal flat/shore.	Unlikely to occur; only need to be considered for wind projects	No effect
	Whooping Crane	*Grus Americana*	E	E	Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.	Unlikely to occur	May affect, not likely to adversely affect

Table 1. (Continued) Federal and state listed threatened and endangered species with potential to occur in the Proposed Action Area

Class	Name		Federal Status[1]	State Status[2]	Range or Habitat Requirements	Potential for Occurrence	Determination of Effect
	Common	Scientific					
Insects	Monarch Butterfly	*Danaus plexippus*	C		Found in fields, roadside areas, open areas, wet areas, or urban gardens; milkweed and flowering plants are needed. Monarchs breed only where milkweeds can be found	May occur	May affect, not likely to adversely affect
Fish	Blackside darter	*Percina maculate*	-	T	Found primarily in Red, Sulfur and Cypress River basins; clear, gravelly streams; prefers pools with some current, or even quiet pools, to swift riffles.	Does not occur	No effect
	Shovelnose sturgeon	*Scaphirhynchus platorynchus*	-	T	Found primarily in open, flowing channels with bottoms of sand or gravel; spawns over gravel or rocks in an area with a fast current; Red River below reservoir and rare occurrence in Rio Grande.	Does not occur	No effect
Mollusks	Texas Heelsplitter	*Potamilus amphichaenus*	-	T	Primarily found in quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins.	Does not occur	No effect
	Louisiana Pigtoe	*Pleurobema riddellii*		T	Occurs in small streams to large rivers in slow to moderate currents in substrates of clay, mud, sand, and gravel. Not known from impoundments (Howells 2010f; Randklev et al. 2013b; Troia et al. 2015). [Mussels of Texas 2019]	Does not occur	No effect
	Sandbank Pocketbook	*Lampsilis satura*		T	Occurs in small streams to large rivers in slow to moderate current in sandy mud to sand and gravel substrate. Can occur in a variety of habitats but most common in littoral habitats	Does not occur	No effect
Reptiles	Texas Horned Lizard	*Phrynosoma cornutum*	-	T	Primarily found in open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.	May occur	No effect

*USFWS Status Definitions

E = endangered. A species "in danger of extinction throughout all or a significant portion of its range."

T = threatened. A species "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."

DL = De-Listed.

C = candidate. A species under consideration for official listing for which there is sufficient information to support listing.

- = No Status.

Range or habitat information is from USFWS 2011, TPWD 2011a, LDWF 2011, and Campbell 2003,[1] USFWS 2017, TPWD 2016.

3.2.3 Other Wildlife Species

The only wildlife identified in the project area consisted of the following bird species: the tufted titmouse (*Baeolophus bicolor*), spotted towhee (*Pipilo maculatus*), dark-eyed junco (*Junco hyemalis*), blue-gray gnatcatcher (*Polioptila caerulea*), northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), red-bellied woodpecker (*Melanerpes carolinus*), and Carolina chickadee (*Poecile carolinensis*). (See **Appendix B**)

Other wildlife species that have been observed in the project area include: Black Vultures (*Coragyps atratus*), Turkey Vultures (*Cathartes aura*), Common Gray Fox (*Urocyon cinereoargenteus*),Eastern Fox Squirrel (*Sciurus niger*), Common raccoon (*Procyon lotor*), nine-banded armadillo (*Dasypus novemcinctus*), Eastern Cottontail Rabbits (*Sylvilagus floridanus*), Coyotes (*Canis latrans*), Bobcats (*Lynx rufus*), White-tailed deer (Odocoileus virginianus texana), Texas Mouse (Peromyscus attwateri), Deer Mouse (*Peromyscus maniculatus*), White-footed Mouse (*Peromyscus leucopus*), Plains Harvest Mouse (*Reithrodontomys montanus*), Striped Skunk (Mephitis mephitis), Mountain Lions (Felis concolor), Texas Rat Snake (*Elaphe [Pantherophis] obsoleta lindheimer*i), Great Plains Rat Snake (*Elaphe [Pantherophis] guttata emoryi*), Western Diamondback (*Crotalus Atrox*), Western Coachwhip Snakes (*Masticophis flagellum*), Eastern Yellowbelly Racer (*Coluber constrictor flaviventris*), Bullsnake (*Pituophis catenifer sayi*), Speckled Kingsnake (*Lampropeltis getula holbrooki*), Texas Spotted Whiptail (*Aspidoscelis [Cnemidophorus] gularis*), Six-lined Racerunner (*Aspidoscelis [Cnemidophorus] sexlineatus*), Eastern Collared Lizard (*Crotaphytus collaris*), Texas Spiny Lizard (*Sceloporus olivaceus*), Prairie Lizard *(Sceloporus consobrinus*), Ground Skink (*Scincella lateralis*), Five-lined Skink (*Plestiodon [Eumeces] fasciatus*), Texas Brown Tarantula (*Aphonopelma hentzi*), and a variety of othe birds, reptiles, insects, and arachnids.

3.2.4 Wetlands and other Waters of the United States

Jurisdictional wetlands, which are those that are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act, must exhibit three characteristics: hydrology, hydrophytes, and hydric soils (USACE, 1987). A formal wetland delineation, in accordance with the USACE guidelines, was not performed as part of the EA. However, observations were made during the field survey to determine the presence or absence of wetlands and other waters of the United States within the project area. No such features exist in or near the project area. No streams, creeks, ponds or wetlands were identified or delineated within the project area. (**Appendix B**)

3.3 LAND USE

The project area and immediate surrounding areas are largely undeveloped grazing lands with a scattering of oil and gas wells. Facilities and structures associated with the Camp at present: shotgun field range (.15 mi WNW), Camp Ranger house (.83 mi. SSW), marina (.38 mi. N), main camp & dining hall (.7 mi. NE), camp warehouse (.5 mi. NNW). Residential neighborhoods are more distant: Hideaway Bay (1.35 mi. S), Runaway Bay (3.3 mi. S), Bridgeport (6.5 mi. E), Bridgeport Airport (4.5 mi. SSE), Chico (6.5 mi. NE), Decatur (16.5 mi. E). The current camp property land use is camping and outdoor recreation, hunting, and grazing.

3.4 CULTURAL RESOURCES

On November 25, 2014, AR Consultants, Inc. (ARC) conducted a pedestrian archaeological investigation and cultural resources survey investigation for the proposed project area. No cultural materials were recovered and no further archeological investigations were recommended. A coordination letter to the Texas Historical Commission (THC) and a concurrence response (October 27, 2017) from the State Historic Preservation Office (SHPO) can be found in **Appendix D**.

Based upon both pedestrian survey and shovel testing, no cultural resources were identified within the footprint of the proposed range project. A search for findings from previous cultural resource investigations resulted in no records within the project area with the nearest recorded site occurring one mile from the project site. (**Appendix E**)**.**

The Service concluded consultation with the Tribes on July 12, 2019. The consulted tribes had no concerns with the project.

3.5 HAZARDOUS MATERIALS

SWCA conducted a Phase I Environmental Site Assessment (ESA) addressing the project area, and the report was issued on January 15, 2018. The Geo-Search database research included in the Phase I EAS was used to prepare the Hazardous Materials chart (**Appendix C**).

Hazardous substances/materials are defined as any solid, liquid, contained gaseous or semi-solid waste, or any combination of regulated wastes that may pose a potential hazard to human health and the environment. Hazardous substances are primarily generated by industry, hospitals, research facilities, and the government. Improper management and disposal of hazardous substances can lead to pollution of groundwater or other drinking water supplies, and the combination of surface water and soil.

According to the Phase I ESA, the assessment for hazardous materials consisted of a review of the Federal and State environmental databases; a site reconnaissance; interviews; and, review of facility-specific information. A regulatory database search was performed to obtain information concerning facilities that handle hazardous materials or regulated substances/materials. The databases are maintained by the State and/or Federal government regulatory agencies. The databases that were searched and the corresponding search distances from the project area are listed below in **Table 2 (Appendix C)**.

Table 2: Federal and State Environmental Record Sources

ASTM-REQUIRED STANDARD ENVIRONMENTAL RECORD SOURCES				
DATABASE	**SEARCH RADIUS**	**PROPERTY LISTINGS**	**ADJACENT LISTINGS**	**TOTAL LISTINGS**
Federal National Priorities List (NPL)	1 mile	0	0	0
Federal Delisted NPL Sites	1/2 mile	0	0	0
Federal CERCLIS List	1/2 mile	0	0	0
Federal CERCLIS NFRAP List	1/2 mile	0	0	0
Federal Corrective Action Sites (CORRACTS) Sites. https://www.epa.gov/cleanups/cleanups-my-community#map	1 mile	0	0	0
Federal RCRA Non-CORRACTS Treatment/Storage/Disposal (TSD) Facilities	1/2 mile	0	0	0
Federal RCRA Generators List	On-site and adjoining property	0	0	0
Federal Institutional Control/Engineering Control Registries	On-site	0	0	0
Federal ERNS List	On-site	0	0	0
State and Tribal Hazardous Waste Sites (SHWS).https://www.epa.gov/cleanups/cleanups-my-community#Tables	1 mile	0	0	0
Municipal Landfill and/or Solid Waste Disposal Sites (SWLF)	1/2 mile	0	0	0
State Registered Underground Storage Tank (UST) Sites	On-site and adjoining property	0	0	0
State and Tribal Leaking Underground Storage Tank (LUST) Sites	1/2 mile	0	0	0
State and Tribal Institutional Control/ Engineering Control Registries	On-site	0	0	0
State and Tribal Voluntary Cleanup Program (VCP) Sites	1/2 mile	0	0	0
State and Tribal Brownfield Sites	1/2 mile	0	0	0

Source: LHC SR2 Phase I Environmental Site Assessment performed by SWCA, November 2017.

The ASTM regulatory database search by Geo-Search reported no regulatory listings within the ASTM- designated distance search range. No Recognized Environmental Conditions, or RECs, were found on or adjoining the project site. The closest site is the location of a 2010 Decatur gas well explosion approximately 15 miles from the camp, NRC#: 934491, latitude 33.2025460, longitude -97.6718620.

3.5.1 NON-TOXIC SHOT ONLY

The Sid Richardson Scout Ranch and BSA care deeply about conservation and a clean environment as does the Service. SRSA understands the importance of education in conservation and environmental protection and welcomes the opportunity to educate new

shooters on the importance of using non-toxic shot. The Service recommends using non-toxic ammunition on National Wildlife Refuges and LHC will maintain this as a non-toxic ammunition only range. Having a non-toxic only range eliminates inadvertent toxicity issues to the environment caused by lead shot, excessive land disturbance and high maintenance costs of lead cleanup. Preventing going in later when all ranges are required to use non-toxic shot and retrofitting a range that allows toxic shot to a non-toxic range will not only save the organization money but it will save the landscape and the environment.

3.6 AIR QUALITY

The Clean Air Act requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants that are common in outdoor air, considered harmful to public health and the environment, and that come from numerous and diverse sources. More stringent nonattainment area rules are established for those areas found to exceed the NAAQS. The proposed project area is in Wise County, which is subject to ozone nonattainment area rules applying to ozone (TCEQ, 2017). Wise County was designated "Marginal" under NAAQS (Ozone National Ambient Air Quality Standards) for 8-Hour Ozone (2015).

3.7 NOISE

Noise sensitive receptors include schools, hospitals, daycare facilities, elderly housing, and convalescent facilities. There are no noise sensitive receptors near the proposed project. The nearest entity not associated with the Scout Ranch is approximately one mile to the north.

During construction, minor and temporary noise and dust will be generated. Upon completion of the project there will be substantial noise only when the prospective shotgun range is in use and heard only by residents closest to the scout ranch border nearest the facility. Considering the current use of the project area and current range on site (which will be closed when the project opens), the intermittent additional shotgun sounds will be limited by the number of certified shotgun instructors on site and are consistent with the noise generated by the current range.

3.8 RECREATION

The Longhorn Council BSA currently uses the proposed project area primarily for recreation associated with scouting. Activities at the site include Boy Scout summer camp, camping, hiking, outdoor sports, shooting sports, and hunting. The site also provides a variety of recreational opportunities to youth and adults from the surrounding communities and the general public. The proposed project area and surrounding property is privately owned and not in use or designated as a city, state, or federal recreational facility.

3.9 SAFETY

Longhorn Council BSA has extensive safety policies and procedures in place to ensure that activities on the subject property are safe for participants and others. Visitors must check in at a gated ranger station. Two full time camp rangers and a caretaker live onsite and provide security for the property. Shotgun sports safety training is required of all shotgun sports participants and is conducted by certified NRA certified Shotgun sports instructors or an instructor of equivalent certification, according to the guidelines of NRA, BSA, and LHC

(Longhorn Council BSA, 2017). The facility will in turn be designed and constructed to meet or exceed safety standards set forth by NRA, BSA, and LHC shooting sports guidelines, the *NRA Range Design Source Book, and the Sid Richardson Scout Ranch Shotgun Range Standard Operating Procedures Manual (S.O.P.)*.

SRSR's emergency action plan with established procedures including the following, can be found in Appendix I.

1. Vehicular emergencies, including camp or camper vehicle accidents (on or off camp property while on camp business), ATVs, biking, boating, etc.
2. Extreme weather conditions, including appropriate shelter
3. Fire (both structure and wildfire)
4. Communicable diseases and infection outbreaks
5. Hazardous materials exposure
6. Dangerous encounters with wildlife
7. Intrusions (including active shooters)
8. Natural and manmade hazards
9. Equipment that, due to the use and risks presented, is limited to authorized personnel using specified safety procedures.
10. Swimming pool and aquatic emergencies
11. Medical Emergencies

11a. Emergency Communications

12. Emergency closure requirements
13. Lost or missing persons

3.10 LOCAL ECONOMIC CONDITIONS

U.S. Census data from 2011-2017 was gathered for Wise County, Texas (904.42 square miles), which includes the proposed action area. Data for this area indicate 12 percent of the population is below the poverty line and average median household income is $56,396 (Census, 2017). The 2017 national average of persons in poverty is 12.3 percent and median household income is $59,039 (Census Bureau). The median household income in census tract 1504.01 that surrounds the project area is $49,601 as of 2016. The surrounding area is below the national average in median income and slightly below national average in poverty. Although predominantly rural agriculture and oil production, local businesses in the surrounding area see indirect economic contributions by patrons of the current Camp facilities who travel in from the surrounding region, potentially consuming gas, food, and similar items.

3.11 ENVIRONMENTAL JUSTICE

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs federal agencies to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority and low-income populations.

In accordance with CEQ guidance, minority populations should be identified if the minority population in the project area "exceeds 50 percent" or if the percentage of minority population in the project area is meaningfully greater than the "minority population percentage in the general population or other appropriate unit of analysis" (CEQ 1997). Communities should be identified as "low income" based on the annual statistical poverty thresholds from the U.S. Census Bureau (CEQ, 1997).

Based on information provided in Section 3.10 (Local Economic Conditions), there are low-income communities within the proposed project area, but only 12.4 percent of those people in this area are below the poverty threshold. Likewise, census data indicates 40 percent of individuals reporting as a racial minority near the proposed project area (Census, 2016). The 2010 national average of persons reporting as a racial minority is 24.9 percent (Humes, 2011).

CHAPTER 4
ENVIRONMENTAL CONSEQUENCES

4.1 PHYSICAL ENVIRONMENT

4.1.1 Climate

Preferred Alternative and No Build Alternative – Neither alternative is anticipated to measurably affect climate.

4.1.2 Geology and Soils

Preferred Alternative – There would be soil disturbance due to construction of the proposed range project. The proposed construction will directly impact three acres. The only deep excavation in the proposed project area will be burying new water and electric lines. Excavation will cease immediately if any culturally important artifacts are found and the Service will be notified immediately. Best management practices (BMPs) would be used throughout construction, and any remaining exposed topsoil would be stabilized using geotextiles (stabilizing fabrics) and landscaping following project activities.

No Build Alternative – No impact to geology and soils would occur within the proposed project area under the No Build Alternative.

4.1.3 Prime and Unique Farmland Soils

Preferred Alternative and No Build Alternative – Neither alternative would affect prime and unique farmland soils, as none are present at the project location (USDA, 2016).

4.1.4 Surface Water

Preferred Alternative – There is no permanent or intermittent surface water on the project site. Some locations within the proposed project area would be leveled, or graded to accommodate stormwater runoff in stormwater control best management practices. These acreages have already been included in the soils section. Stormwater control best management practices would be utilized throughout construction. The need for permanent stormwater controls is not anticipated following completion of the project construction. No long-term water quality impacts would occur as a result of the Preferred Alternative. Further, this alternative would not alter rainfall drainage patterns or contaminate or otherwise adversely affect the public water supply, water treatment facilities, or water distribution systems.

No Build Alternative – No impact to surface water quality would occur within the proposed project area under the No Build Alternative.

4.1.5 Groundwater

- Preferred Alternative and No Build Alternative – Groundwater would not be required for the proposed project. The project construction would involve shallow excavation which would not affect groundwater. No adverse effects to groundwater would occur as no use of or interaction with local groundwater would occur for either alternative. As a non-toxic shot only range, issues involving the poisoning of wildlife and contamination of groundwater that occur with lead shot will be avoided.

4.1.6 Topography

Preferred Alternative – Some locations at the center of peak elevation within the proposed project area would potentially be leveled for the training center building slab. Others will be gently graded along the existing slopes. Topography would not be significantly altered.

No Build Alternative – Topography would not change within the project area under the No Build Alternative.

4.1.7 Floodplains

Preferred Alternative and No Build Alternative – The project area does not lie within any designated floodplain boundary; therefore, neither alternative would have an impact on floodplains.

4.2 BIOLOGICAL ENVIRONMENT

4.2.1 Vegetation

The Project site consists of outcroppings of limestone glade, grasslands, and widely scattered forested areas of cedar elm (*Ulmus crassifolia*), post oak (*Quercus stellata*), and mesquite (*Prosopis glandulosa*).

Preferred Alternative – An approximately 3.4 acre area of scattered forest would be selectively cleared as a result of construction activities. Post oak and cedar elm trees will be avoided to the extent possible to provide shade for participants while allowing full use of the shotgun education center. Native grasses will be maintained in the areas cleared of trees. There would be a small net reduction in scattered forest habitat under the Preferred Alternative. BMPs would be utilized to minimize impacts to surrounding vegetation and trees. The project design for the Preferred Alternative includes the minimal practicable impacts to native vegetation and trees..

No Build Alternative – The area would continue to be outcroppings of limestone glade, grasslands, and widely scattered forested areas.

4.2.2 Threatened and Endangered Species

In accordance with Section 7(a)(2) of the Endangered Species Act of 1973, as amended, federally funded, constructed, permitted, or licensed projects must take into consideration impacts to federally listed and proposed threatened or endangered species. Based on a review of TPWD, TXNDD, and USFWS records, no species occurrence or designated critical habitat for threatened and endangered species occurs in the proposed project area or adjacent to the project area. Of the species listed in **Table 1**, none have potential habitat in the project vicinity.

Preferred Alternative – No suitable habitat for listed species occurs on or near the project area. No species or sign of their activity were observed. Based on a review of TPWD, TXNDD, and USFWS records, no species occurrence or designated critical habitat for threatened and endangered species occurs in the proposed project area or near the project area. Consequently, there would be no effect to threatened or endangered species or their critical habitat as a result of the Preferred Alternative.

Determination of Impact: Given how rare whooping cranes are and despite the fact that the project occurs within the primary migration corridor, it is highly improbable that any construction activities would impact migrant whooping cranes. There are no agricultural fields or other

suitable stopover habitat at the proposed site.

Construction of the shooting range is also not expected to result in the loss of any wetland habitat that could be used by whooping cranes since no such habitat occurs at the project site. Construction will also not create any significant collision risks for the species.

No Build Alternative – No suitable habitat for listed species occurs on or near the project area. There would be no impact to threatened or endangered species or their critical habitat as a result of the No Build Alternative.

4.2.2.1 Biological Evaluation and Determination of Effects

An Intra-Service Section 7 Biological Evaluation Form was completed and submitted to USFWS in conjunction with this EA (**Appendix G**). This form outlines the determination of effects for federally listed endangered, threatened, and candidate species in relation to the Preferred Alternative actions. The determinations of effects are summarized in Appendix G.

Preferred Alternative – No direct or indirect effects to the remaining listed threatened or endangered species or their habitats would occur as no suitable habitat is present at the project site.

No Build Alternative – No effect for listed species would occur under the No Build Alternative.

4.2.3 Other Wildlife Species

Preferred Alternative – Utilization of the proposed project area by other wildlife species will be not change. Existing habitat will remain the same, with the project designed to fit within the existing natural areas. Some wildlife species currently utilizing the project area may experience some short-term displacement impact during the project construction; however, affected species are expected to disperse to adjacent areas outside of the construction zones. The affected species should re-colonize (or continue to utilize) areas on the property that are not subjected to the development activities. Birds present in the area may fall under the protection of the Migratory Bird Treaty Act (MBTA). Disturbance of occupied nests including eggs, young, and nesting birds is prohibited under MBTA. If clearing occurs during nesting season, vegetation in and adjacent to the clearing area would be surveyed for nests prior to the clearing activities. If nests are encountered, then work should cease immediately and SWCA or another qualified biologist should be contacted to survey and assist with MBTA compliance.

See **Section 3.2.3 Other Wildlife Species** for a list of other wildlife species observed at the site.

No permanent or long-term impacts to other wildlife species are expected to occur under the Preferred Alternative.

No Build Alternative – No permanent or long-term impacts to other wildlife species would occur.

4.2.4 Wetlands and other Waters of the United States

Preferred Alternative and No Build Alternative – The proposed project area does not contain any wetlands or waters of the U.S. (**Appendix B**) Consequently, there would be no impacts to these resources under either alternative.

4.3 LAND USE

Preferred Alternative and No Build Alternative – Currently, the proposed project area is an undeveloped wilderness area of the Camp. Due to the minimal amount of disturbance of the property that would occur from the proposed action, the proposed project activities would not result in substantial alteration of land use.

4.4 CULTURAL RESOURCES

Preferred Alternative – AR Consultants, INC completed an archeological investigation of the proposed project area and concluded that no cultural resources would be impacted by implementation of the Preferred Alternative.

The purpose of the investigation was to determine if significant cultural resources are present within proposed areas for the two shotgun range sites on Thunderbird Ridge at Sid Richardson Scout Camp. The project site was surveyed for cultural resources and none were found on the areas where surface exposure averaged better than fifty percent or in the open tree-covered areas or in the area where soil, rock, and metal have been dumped.

AR Consultants concluded that creation of the shotgun ranges will not endanger any significant cultural resources and recommends that further archaeological investigations are unwarranted.

The State Historic Preservation Officer of the Texas Historical Commission issued a finding of “No Historic Properties Affected, Project may Proceed” on October 27, 2017 (**Appendix D**).

The Service concluded consultation with the Tribes on July 12, 2019. The consulted tribes had no concerns with the project.

In the event that archeological deposits or features are encountered during construction, all operations in the area of potential effect would cease immediately and TPWD and the Archeology Division of the THC would be contacted. Work would not resume until written authorization to proceed is issued by the USFWS after determination of appropriate actions to prevent the loss of significant cultural, religious, or scientific values.

No Build Alternative – No impact to cultural resources would occur.

4.5 HAZARDOUS MATERIALS

Preferred Alternative and No Build Alternative – No hazardous materials were found within the search criteria that would affect this project area. Therefore, there would be no impact from hazardous materials to the Preferred Alternative or No Build Alternative.

4.6 AIR QUALITY

Preferred Alternative – Construction activities would likely cause a disturbance of soils in the proposed project area. Dust from this type of disturbance would become airborne during dry periods and could pose a nuisance to users of the surrounding property. Exhaust from construction equipment would be similar to that of nearby road and highway traffic. The project construction would not exceed NAAQS. Dust from construction activities can become a temporary and short-term nuisance for surrounding areas. The windier part of the year lasts for 4.8 months, Jan. 13 to June 8, with average wind speeds of more than 10.3 mph. The windiest day of the year is April 2, with an average hourly wind speed of 12.1 miles per hour. The 7.2 months from June 8 to Jan. 13 is calmer, with an average hourly wind speed of 8.4 mph. The wind prevails from the south for 11 months, from February 8 to December 27. The wind is most often from the north from December 27 to February 8. [https://weatherspark.com] There would be no permanent or long-term impact to air quality as a result of the Preferred Alternative.

No Build Alternative – No impacts to air quality would occur as a result of the No Build Alternative.

4.7 NOISE

Preferred Alternative – Noise levels associated with construction equipment and activities would be of a temporary and localized nature. Construction activities would occur during the daytime when such activities are more tolerable.

During use of the new range, there would be noise when shooting is occurring, but this would be roughly the same level of noise as the current range which this new project will be replacing.

As mentioned before, no schools, hospitals, daycare facilities, elderly housing, or convalescent facilities are located on or near the proposed project. The nearest facility not associated with the Scout Ranch is approximately one mile to the north and the nearest residential area 1.3 miles away. A SRSR residence is located 0.7 miles from the building site.

No Build Alternative – Implementation of the No Build Alternative would not result in an increase in noise levels in the proposed project area nor surrounding areas.

4.8 RECREATION

Preferred Alternative – The nature of the Camp, in part, is to provide recreational opportunities to the public. The proposed project would result in an increase in capacity and variety of recreational usage at the Camp. The shotgun sports range would be available to youth and adults involved in scouting, youth from the surrounding communities, and the general public as well.

No Build Alternative – Under the No Build Alternative, recreational services at the Camp would continue at their current level.

4.9 SAFETY

Longhorn Council and the BSA have extensive safety policies and procedures in place to

ensure that activities on the subject property are safe for participants and others. Shotgun sports safety training is required of all participants and conducted by a certified NRA Shotgun sports instructor, an instructor of equivalent certification, or an instructor with documented experience according to the council's guidelines (Longhorn Council, 2017). The facility will be designed and constructed to meet or exceed safety standards set forth by the council's and NRA's guidelines. (see **Section 3.9 Safety**)

Preferred Alternative and No Build Alternative – Neither the Preferred Alternative nor the No Build Alternative would adversely affect Camp safety practices.

4.10 LOCAL ECONOMIC CONDITIONS

Preferred Alternative – Minority and low-income populations are 12% of the population in Wise County where the project is located. No adverse impacts to these populations are anticipated as a result of the Preferred Alternative. Due to the nature of the Preferred Alternative, no disproportionately high and adverse human health or environmental impacts are anticipated. Additionally, the Preferred Alternative would not result in any displacements.

Although predominantly rural agriculture and oil production, local businesses in the surrounding area see indirect economic contributions by patrons of the current Camp facilities who travel in from the surrounding region, potentially consuming gas, food, and similar items. The Preferred Alternative would result in an expansion of services that would provide a positive impact due to increased use of the area locally, users traveling to the facility and would result in an increase in sales of gas, food, and other similar products. The construction of the shotgun education center could provide some short-term employment opportunities. However, due to the relatively small scale of the proposed construction, the number of jobs would be minimal and effects to employment rates and the local economy from the construction labor force would be negligible.

Many of the individuals served by this project will come from low-income and ethnically diverse populations living in the geographical area of Wise County and of the 21 counties of the Longhorn Council. These individuals do not currently have the opportunity to learn and develop hunter education and shotgun sports skills and experience locally and will continue to not have this opportunity if this facility is not constructed. In addition to learning about shotgun sports safety associated with learning shotgun sports skills, individuals will be able to come away more competent and confident in their abilities if built. The location in Wise County provides the nearby community with access to an affordable and nearby range, access to hunter education, shotgun sports safety and training classes.

No Build Alternative – There would be no change to the local economy from the implementation of the No Build Alternative.

4.11 ENVIRONMENTAL JUSTICE

Preferred Alternative – Based on information provided in Section 3.10 (Local Economic Conditions) of this EA, there are low-income communities within the proposed project area, but 12.4 percent of the people in the project area are below the poverty threshold. Likewise, census data indicates 40 percent of individuals reporting as a racial minority near the proposed project area (Census, 2016). The 2010 national average of persons reporting as a racial minority is 24.9 percent (Humes, 2011)."

Based on information provided in Section 3.10 (Local Economic Conditions) of this EA, there are low-income and minority communities near the proposed project area. However, the

Preferred Alternative would not result in adverse effects to low income or minority populations. Rather, because the shotgun education center will be open to the general public, the Preferred Alternative will provide the nearby community with access to an affordable and nearby range and access to shotgun sports safety and training classes.

No Build Alternative – No impacts would occur to minority and low-income populations under the No Build Alternative.

CHAPTER 5
CUMULATIVE EFFECTS

Preferred Alternative – An analysis of cumulative effects is intended to disclose the incremental impacts that the alternatives could cause when considered in the context of impacts associated with past, present, and reasonably foreseeable future actions. It has been further determined that the cumulative effects are expected to be minimal to non-existent in some cases.

No Build Alternative – Cumulative effects to the human environment and natural environment would not occur under the No Build Alternative.

CHAPTER 6
PUBLIC INVOLVEMENT

The Longhorn Council held two open houses at the Main Dining Hall at Sid Richardson Scout Ranch on May 9 and June 5, 2019. No members of the public were present to express any concerns for the project at either meeting. Also, no public comments were received in response to a notice advertising the open houses that was posted at One Stop of Texas, Lakeside Grill & Grocery, Legacy Texas Bank, and First State Bank.

In order to help make the public aware of the proposed project, TPWD will post the final draft EA on their Website's public comment page. The information posted describes the proposed facility, its elements, need and purpose of the project, and funding support through the USFWS' Wildlife and Sport Fish Restoration Grant Program in collaboration with TPWD.

Information in the public outreach statement directed the public to contact TPWD and/or Sid Richardson Scout Ranch regarding any questions or comments they have on the proposed project and the preparation of the environmental assessment, and to contact TPWD regarding any questions on the grant administration process.

CHAPTER 7
ENVIRONMENTAL COMMITMENTS

The planning process for the Longhorn Council BSA proposed range project included environmentally protective measures. Such measures are planned for use during the construction of the proposed project and for on-going site maintenance. The following is a summary of some of those protective measures:

- The proposed non-toxic range project would be located in an area with no surface waters or jurisdictional Waters of the United States.
- Site placement utilizes a largely level upland plateau setting to minimize the need for ground disturbance and earth moving operations during construction.
- Construction BMPs will be utilized to protect and minimize impacts to soils, vegetation, and downgradient surface waters.
- Trees are given a high priority and will be left intact within the project area anywhere they will not directly affect range usage.
- In the event that archeological deposits or features should be encountered during construction, work would cease immediately, the Service notified and the Archeology Division of the THC would be contacted for further consultation.
- Vegetation removal will either occur outside of migratory bird nesting season or, if clearing occurs during bird nesting season, vegetation in and adjacent to the clearing area will be surveyed for nests prior to the clearing activities. If nests are encountered, then work would cease immediately and TES or another qualified biologist should be contacted to survey and assist with MBTA compliance.

CHAPTER 8
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CHAPTER 9
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McGowen, JH, et al, 1967, rev 1991, Geologic Atlas of Texas, Sherman Sheet, BEG

http://info.drillinginfo.com/, accessed: May-June, 2014.

See attached bibliographies in the following:

Appendix B – SWCA Boy Scouts of America T&E Reports

Appendix C – SWCA Boy Scouts of America Phase I ESA Report

Appendix E - AR Consultants Cultural Resources Archaeology Survey

Appendix I - Geology Report

FIGURES

Figure 1. Sid Richardson Scout Ranch Location Map

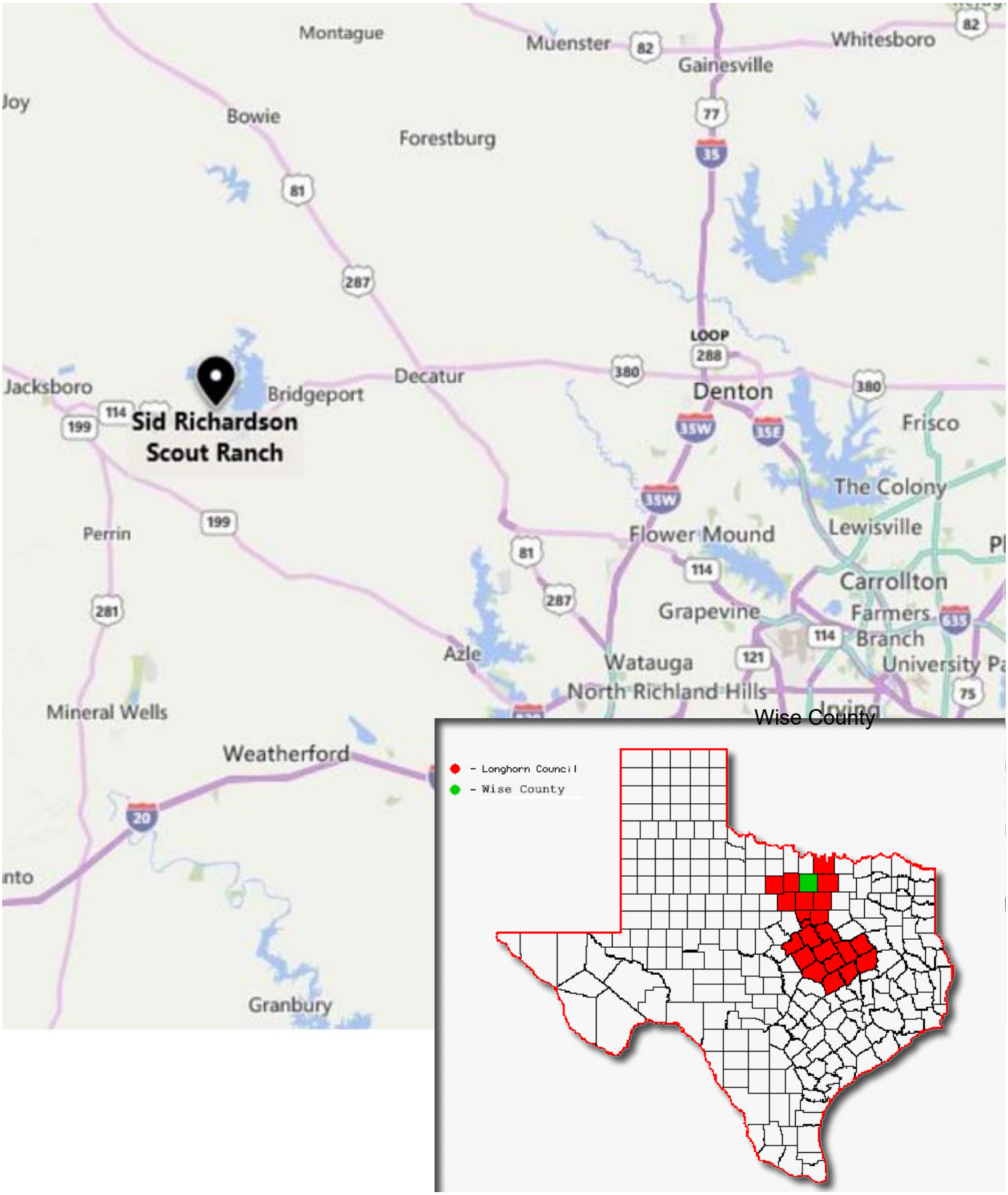


Figure 2. Sid Richardson Scout Ranch Boundary Map

Figure 3. FEMA 100 Year Flood Map - Sid Richardson Scout Ranch Project Site

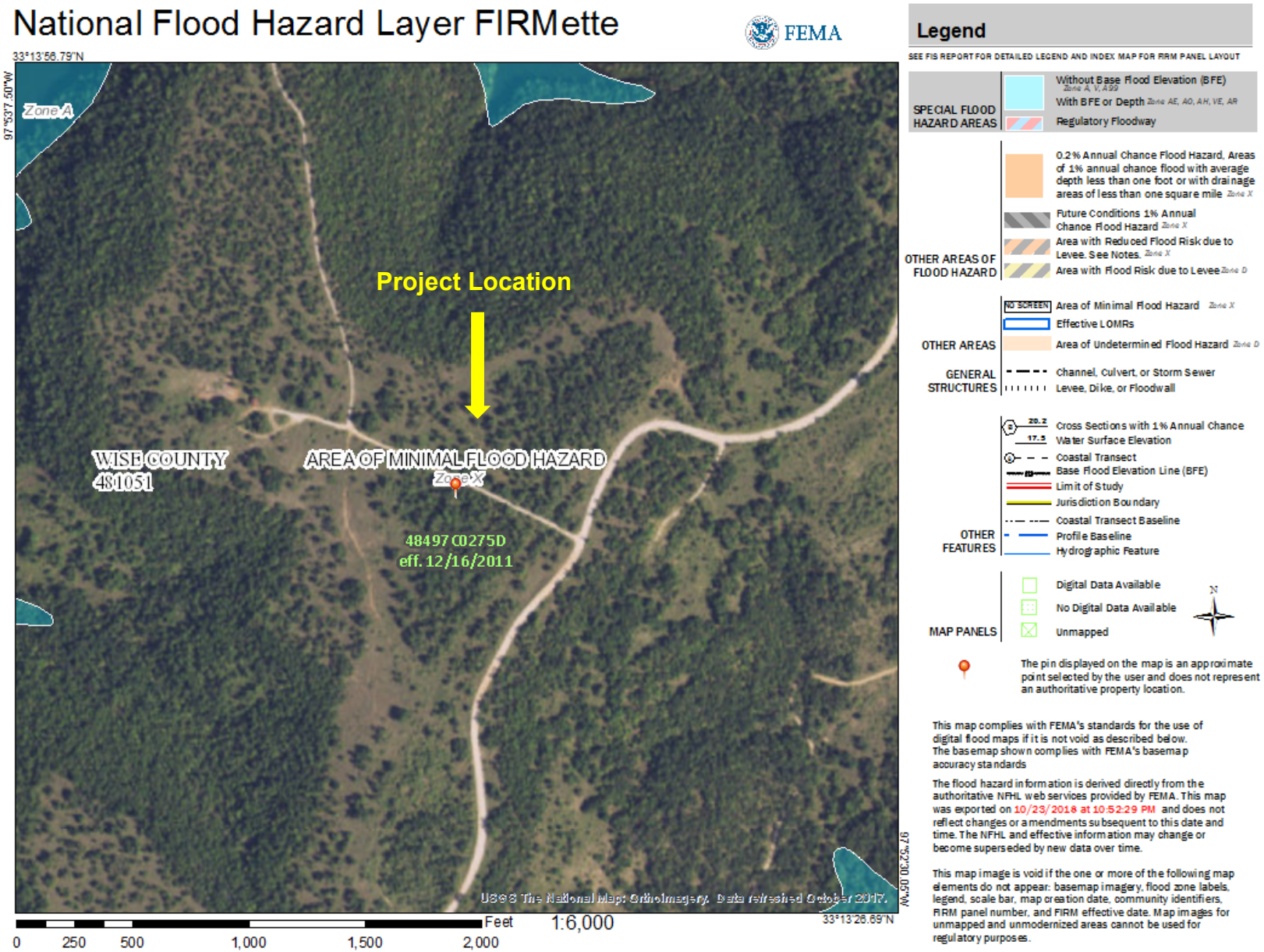


Figure 4. Sid Richardson Scout Ranch Topographical Map

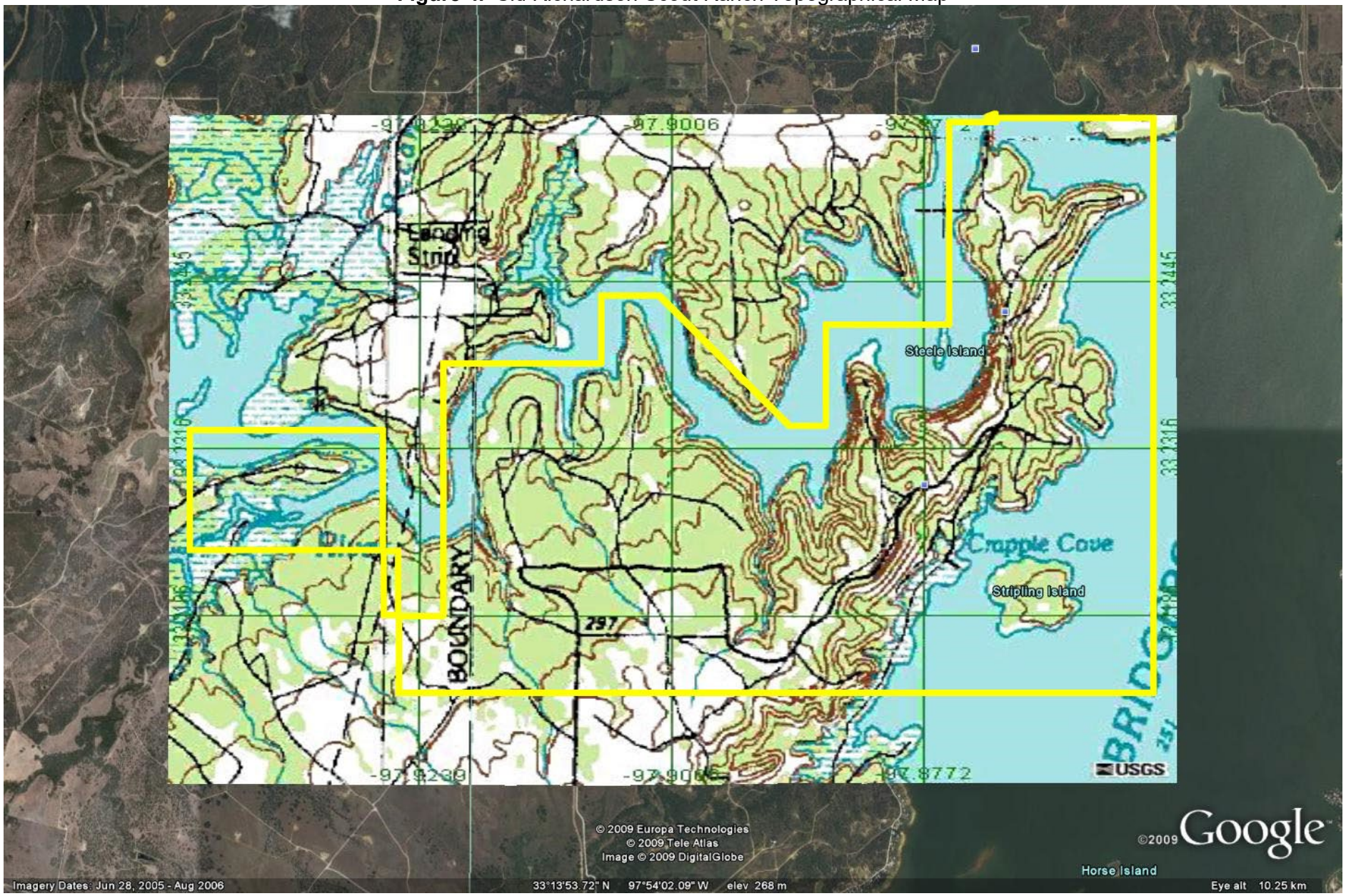


Figure 5. Sid Richardson Scout Ranch USGS Topographical Map

Soil Map—Wise County, Texas
(SR2 Shotgun Range Soil Survey)

Figure 6. Sid Richardson Scout Ranch USGS Soil Map

Figure 7. Sid Richardson Scout Ranch Project Map

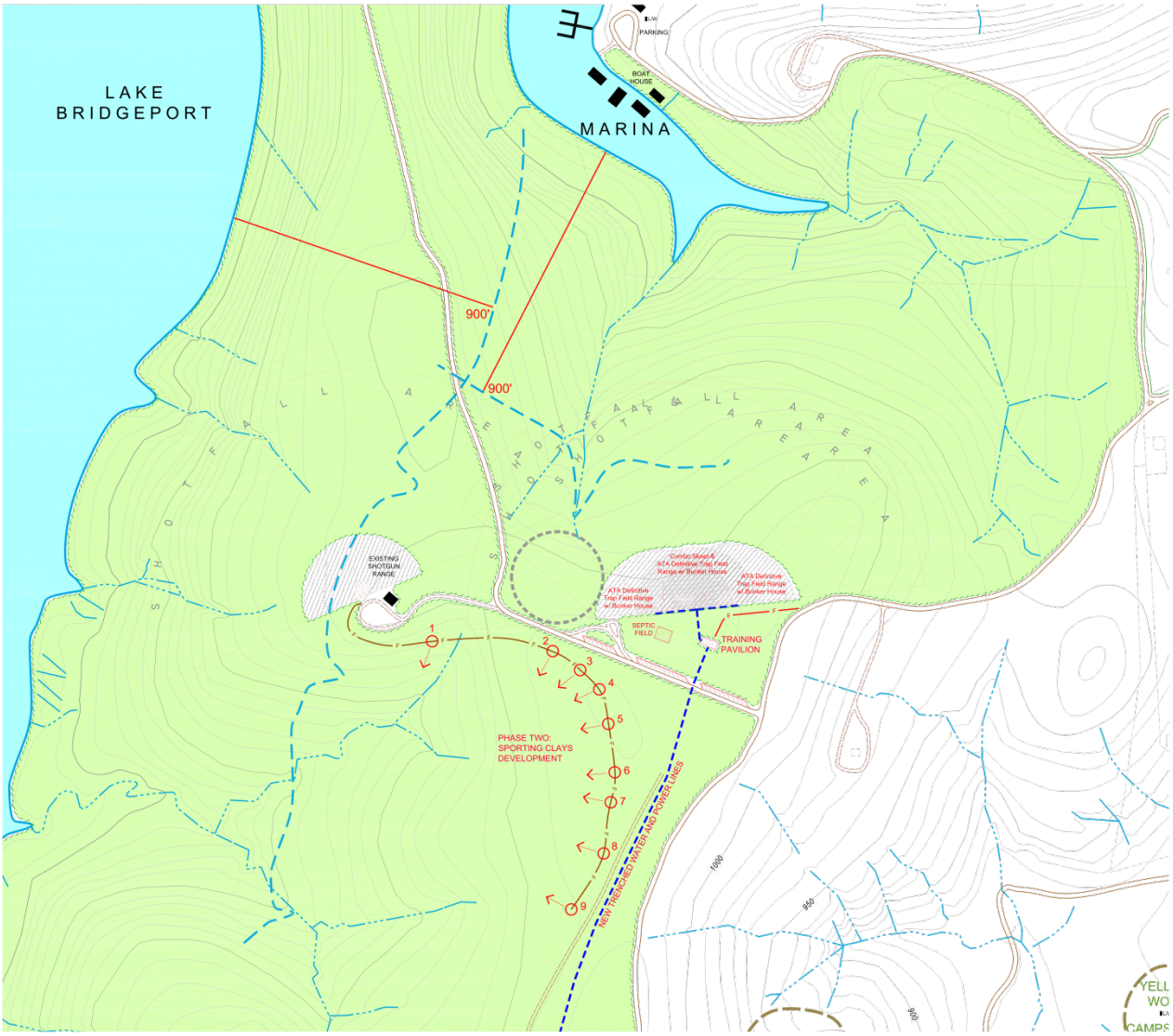
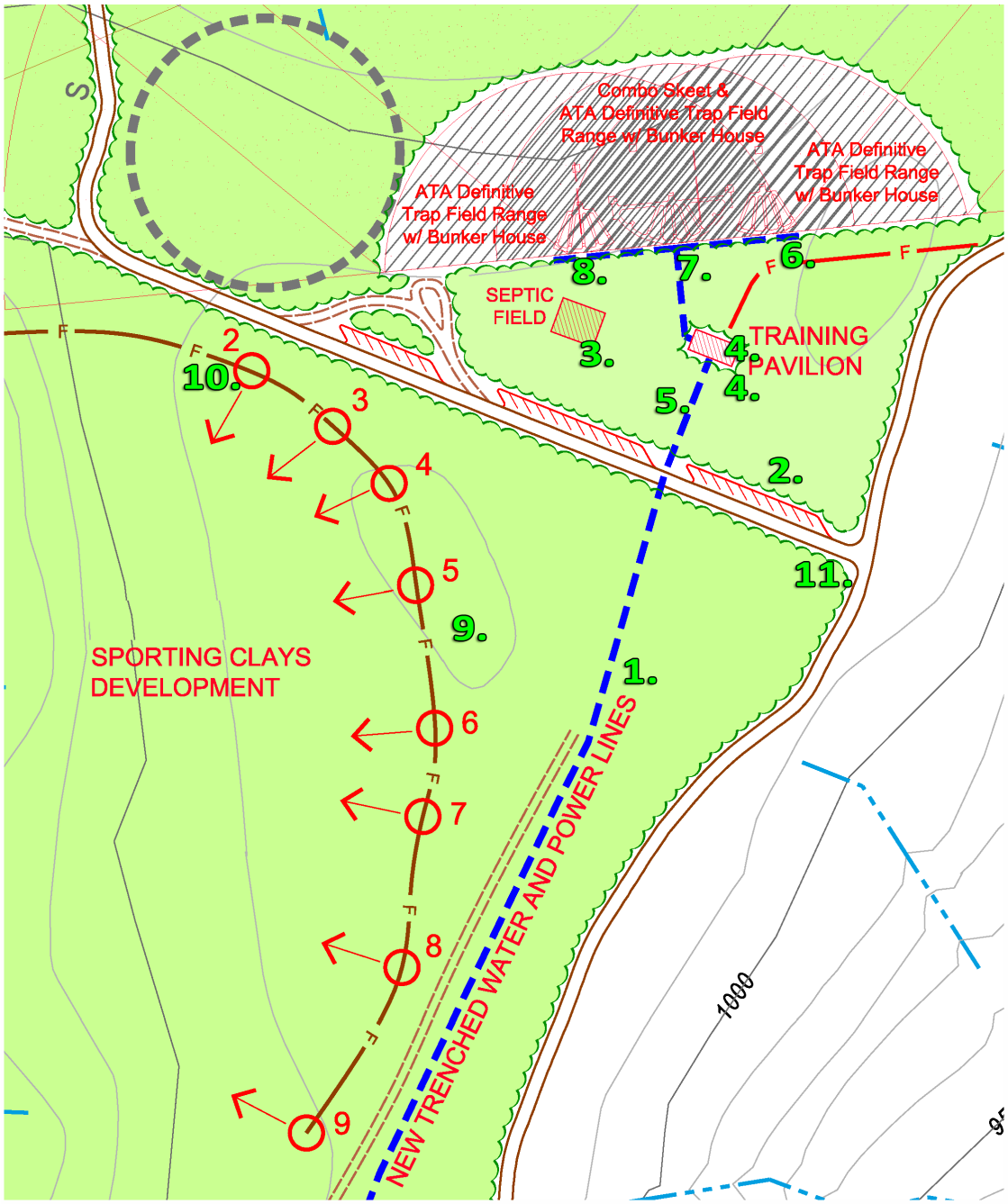


Figure 7a. Sid Richardson Scout Ranch Project Map DETAILS



1. Trenching of Water and power lines.
2. Angled parking areas along the driveway north edge
3. Septic Field for Training building
4. Modified NRA Trap and Skeet Range Training Building
5. Sidewalks / trails
6. ATA Trap Field #1
7. Combo Range: ATA Trap Field #2 and Skeet Range
8. ATA Trap Field #3
9. Sporting Clays walk-through thrower stations
10. Sporting Clays walk-through trail sidewalk
11. Signs

Appendix A

Representative Site Photographs

Appendix A – Representative Site Photographs

Sid Richardson Scout Ranch -Shotgun Range Project Site Photos


Google Earth


257 ft
Google earth


© 2014 Google
624 ft
Google earth

Appendix B

SWCA BSA T&E Reports

Shotgun Sports and Hunter Education Training Center Project
Sid Richardson Scout Ranch, Longhorn Council BSA

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December 20, 2017

Jeff Peters
Longhorn Council – Boy Scouts of America
850 Cannon Drive
Hurst, Texas 76054
jpeters@longhorn.org

Re: Threatened and Endangered Species Survey of an approximate 13.7-acre property, Wise County, Texas / SWCA Project No. 45618

Dear Mr. Peters:

Longhorn Council, Boy Scouts of America contracted SWCA Environmental Consultants (SWCA) to perform a threatened and endangered (T&E) species evaluation on an approximate 13.7-acre property in Wise County, Texas. A portion of the subject property is proposed for conversion to a shooting range for use by the Boy Scouts of America.

This report is based on knowledge of the special-status resources in the region, a review of relevant background literature, and a focused field investigation of the project area. It also provides recommendations for minimizing impacts to these resources and a discussion of permitting requirements.

We appreciate the opportunity to conduct these services for the Boy Scouts of America. If you have any questions or require additional information, please contact me by phone (817-394-6506) or e-mail (mchambers@swca.com).

Sincerely,

Micah Chambers
Project Manager

Attachment

On November 15, 2017, SWCA Environmental Consultants (SWCA) biologists Mr. Austin Hill and Ms. Allison Locatell visited the project site for the potential presence of threatened and endangered (T&E) species and habitat. Prior to the visit, SWCA reviewed the state and federal listings for protected species in Wise County, Texas and queried the Texas Parks and Wildlife Department's (TPWD) Texas Natural Diversity Database (TXNDD) for known occurrences of protected species in or nearby the project area. The results of the background review and field evaluation are discussed below.

SITE DESCRIPTION

The proposed project is located in the Texas Blackland Prairies Level IV Ecoregion of Texas (Griffith et al. 2004). The Texas Blackland Prairies form a disjunct ecological region distinguished from surrounding regions by fine-textured, clayey soils and predominantly prairie vegetation. The predominance of vertisols in this area is related to soil formations in Cretaceous shale, chalk, and marl parent materials. Unlike tallgrass prairie soils that are mostly mollisols in states to the north, this region contains vertisols, alfisols, and mollisols. Dominant grasses included little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), yellow Indiangrass (*Sorghastrum nutans*), and switchgrass (*Panicum virgatum*). This region now contains a higher percentage of cropland than adjacent regions; pasture and forage production for livestock is common. Large areas of the region are being converted to urban and industrial uses. Typical game species include mourning dove and northern bobwhite on uplands and eastern fox squirrel along stream bottomlands.

The proposed project site is located on a portion of Lake Bridgeport in Wise County, Texas. Lake Bridgeport is a man-made, freshwater reservoir located on the West Fork Trinity River. Owned by the Tarrant Regional Water District, the water impounded within the lake is used for flood control, residential, and commercial sales, irrigation, and recreation. The Boy Scouts own and operate the property located within the project area. This property currently encompasses a dump-site and an existing shooting range.

The project site consists of grasslands and forested areas and is characterized by outcroppings of limestone glade. Dominant trees in the project area include cedar elm (*Ulmus crassifolia*), live oak (*Quercus virginiana*), mesquite (*Prosopis glandulosa*), ash (*Fraxinus albicans*), eastern red cedar (*Juniperus virginiana*), and post oak (*Quercus stellata*). Dominant herbaceous and shrub species include fragrant sumac (*Rhus aromatica*), elbow bush (*Forestiera pubescens*), broomweed (*Amphiachyris dracunculoides*), little bluestem, hairy tridens (*Erioneuron pilosum*), prickly pear (*Opuntia* sp.), and field brome (*Bromus arvensis*).

The only wildlife identified in the project area consisted of the following bird species: the tufted titmouse (*Baeolophus bicolor*), spotted towhee (*Pipilo maculatus*), dark-eyed junco (*Junco hyemalis*), blue-gray gnatcatcher (*Polioptila caerulea*), northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), red-bellied woodpecker (*Melanerpes carolinus*), and Carolina chickadee (*Poecile carolinensis*).

No streams, creeks, ponds or wetlands were identified or delineated within the project area.

THREATENED AND ENDANGERED SPECIES HABITAT EVALUATION

In accordance with the Endangered Species Act (ESA) of 1973, SWCA biologists conducted a literature review of available state and federal databases followed by an on-the-ground survey to determine whether any state or federally-listed threatened or endangered species, or their habitats, were present within the project area. Extensive habitat boundary analysis beyond the study corridor was not conducted for this project.

According to the U.S. Fish and Wildlife Service (USFWS) protected species list for Wise County, Texas five federally-listed species potentially occur within the project area: whooping crane (*Grus americana*; endangered), black-capped vireo (*Vireo atricapilla*; endangered), least tern (*Sterna antillarum*), piping plover (*Charadrius melodus*), and red knot (*Calidris canutus rufa*) (USFWS 2017). The least tern, piping plover, red knot only need to be considered for wind energy projects as they are only migrants through Wise County and will not be addressed further in this report. Additionally, the federally endangered golden-cheeked warbler (Dendroica chrysoparia) is being evaluated at the proposed site by request. Although the bald eagle is delisted, it is still protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. While the USFWS maintains regulatory authority over federally-listed species, the TPWD authority is only applicable when state land or funds are utilized. Table 1 lists all federal and state listed species that occur within Wise County, Texas.

The potential for occurrence of each species was summarized according to the categories listed below. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided. Potential for occurrence categories are as follows:

- *Known to occur*—the species has been documented in the project area by a reliable observer.
- *May occur*—the project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- *Unlikely to occur*—either the project area is clearly outside the species' currently known range, or the project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species.

Those species listed by the USFWS were assigned to one of three categories of possible effect, following USFWS recommendations. The effects determinations recommended by USFWS include:

- *May affect, is likely to adversely affect*—adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.
- *May affect, is not likely to adversely affect*—the proposed action may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial.
- *No effect*—the proposed action will not affect federally listed species or critical habitat.

Whooping Crane (Endangered)

The Texas population of wild whooping cranes spend their summers in northern Alberta, Canada and winter along the Texas Gulf Coast. In Texas, the species winters on salt flats, marshes, and along barrier islands in and immediately adjacent to the Aransas National Wildlife Refuge on the mid-Texas coast (Matthews and Moseley 1990; Campbell 2003). During migration stopovers, whooping cranes utilize freshwater marshes, wet prairies, grain and stubble fields, shallow lakes, and lagoons with good horizontal visibility, water depth of 12 inches or less, and minimum wetland size suitable for roosting (Armbruster 1990; Howe 1989).

Whooping cranes migrate during both spring and fall through a relatively narrow corridor that basically follows a straight line through the Great Plains, with the cranes traveling through Alberta, Saskatchewan, extreme eastern Montana, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas (Canadian Wildlife Service and USFWS 2009). The primary migration corridor is approximately 200 miles wide, although cranes can be pushed east or west by unfavorable winds.

Determination of Impact: Given how rare whooping cranes are and despite the fact that the project occurs within the primary migration corridor, it is highly improbable that any construction activities would impact migrant whooping cranes as suitable stopover habitat is not present at the proposed site. Construction of the shooting range is also not expected to result in the loss of any wetland habitat that could be used by whooping cranes, or create any significant collision risks for the species. For these reasons, it is SWCA's opinion that the proposed project will have no effect on this species.

Black-Capped Vireo (Endangered)

Typical breeding habitat for the black-capped vireo consists of clusters of deciduous shrubs with vegetation cover down to ground level that are separated by narrow grassy or rocky breaks. Total shrub cover in areas occupied by vireos typically ranges from 30 to 60 percent (Campbell 2003). Larger trees may be present in areas occupied by vireos, although the canopy layer is typically open. Shrublands occupied by black-capped vireos usually develop on limestone substrates and are often dominated by oak or sumac; however, the species can also occur on sandy substrates if suitable dense shrubby vegetation is present. Shrub species often present in areas occupied by black-capped vireos in the general project region include Vasey oak (*Quercus vaseyana*), Texas persimmon (*Diospyros texana*), agarita (*Mahonia trifoliolata*), Texas kidneywood (*Eysenhardtia texana*), little walnut (*Juglans microcarpa*), lotebush (*Ziziphus obtusifolia*), bluewood condalia (*Condalia hookeri*), common hop-tree (*Ptelea trifoliata*), and mountain laurel (*Sophora secundiflora*) (Campbell 2003).

Most black-capped vireos arrive on their Texas breeding grounds from late March through early April. Males generally establish territories that range in size from 1 to 10 acres, with an average territory size of 2 to 4 acres (Graber 1957; Tazik and Cornelius 1989). The species may nest more than once in the same year, with migration to the wintering grounds generally occurring in September (USFWS 1991).

Determination of Impact: The western portion subject property contained marginal habitat that may support black-capped vireo. Ideal habitat consists of patchy deciduous broadleaf shrubs from 3 to 15 feet with vegetation extending to the ground and approximately 40 to 70 percent open grassland between. Deciduous shrubs at the site consisted of primarily shin oak and elbow bush with young live oak, young cedar elm, and skunkbush sumac also present to a lesser degree. Adequate broad leaf deciduous shrub structure was present across approximately 50 percent of marginal habitat area but was limited to small patches concentrated under large oak or ash canopies consisting of one or more mature trees greater than 25 feet. The species has the potential to occur in this marginal habitat, but the proposed project footprint is located east of any potential habitat and should have no effect on this species.

Golden-Cheeked Warbler (Endangered)

Typical breeding habitat for the golden-cheeked warbler consists of tall dense stands of mature Ashe juniper (*Juniperus ashei*) mixed with various oaks, ash, or elm tree species (Campbell 2003). This habitat is typically located in ravines, canyons, or other steeply sloping topographic features though dry, flat, oak-juniper woodlands can also support this species. Golden-cheeked warblers require the long strips of peeling bark from mature Ashe juniper to construct their nests.

Most golden-cheeked warblers arrive on their central Texas breeding grounds in March through early April and leave in late June to mid-August to return to wintering habitat in southern Mexico and Central America.

Determination of Impact: Suitable habitat for the golden-cheeked warbler is not present at the proposed site. The site contains few Ashe juniper, and is primarily mature oak woodland. Ideal habitat would contain a significant proportion of mature Ashe juniper mixed with the mature oak currently present.

Additionally, the species is not currently known to occupy Wise County. This species is unlikely to occur in the project area, thus the project will have no effect on this species.

CONCLUSIONS

SWCA conducted a background review, field investigation, and prepared this report in accordance with the ESA. No municipal ordinances and/or codes were reviewed. Based on current construction plans, no federally listed species or their habitat will be adversely affected by the project. Consequently, the project would have no effect on protected species.

The findings presented in this letter report are restricted to and based on SWCA's professional opinion. In the event that the proposed construction activities occur beyond the extent of areas investigated on November 15, 2017, it is suggested that the Boy Scouts contact SWCA to determine potential impacts to T&E species and/or their habitat within the revised project area.

Within the limitations of schedule, budget, and scope of work, SWCA warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed.

The results and conclusions of this report represent the best professional judgment of SWCA scientists. No other warranty, expressed or implied, is made. Please be aware that only the USFWS and/or lead federal agency can determine compliance with the ESA.

REFERENCES

Armbruster, M. J. 1990. Characterization of habitat used by whooping cranes during migration. U.S. Fish and Wildlife Service. *Biology of Reproduction* 90(4).

Canadian Wildlife Service and USFWS. 2007. *International Recovery Plan for the Whooping Crane.* Ottawa: Recovery of Nationally Endangered Wildlife, and USFWS, Albuquerque, New Mexico. 162 pp.

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ATTACHMENT A

Federal and State Protected Species

Common Name (Scientific Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
BIRDS				
Whooping Crane (*Grus americana*)	USFWS (E) TPWD (E)	Migration habitat includes grain fields, shallow lakes, saltwater marshes, playa lakes, and lagoons.	Unlikely to occur.	No effect.
Black-Capped vireo (*Vireo atricapilla*)	USFWS (E)	Dense deciduous shrublands with vegetation extending to ground. Habitat typically on limestone substrates.	May occur.	No Effect
Golden-Cheeked Warbler (*Dendroica chrysoparia*)	USFWS (E)	Dense, mature oak-juniper woodlands along slopes of ravines or canyons.	Does not occur.	No Effect
Bald Eagle (*Haliaeetus leucocephalus*)	USFWS (DL) TPWD (T)	Found primarily near rivers, lakes, or other large waterbodies. Typically nests in mature trees, snags, or on cliffs near water.	Unlikely to occur.	No effect.
Interior Least Tern (*Sterna antillarum athalassos*)	USFWS (E) TPWD (E)	Nests along sand and gravel bars within braided streams, rivers, when breeding forages within a few hundred feet of colony.	Unlikely to occur.	No effect.
Piping plover (*Charadrius melodus*)	USFWS (T)	Winter migrant to coastal beaches from Florida to Mexico.	Unlikely to occur.	No effect.
Red Knot (*Calidris canutus rufa*)	USFWS (T)	Winter migrant from ranging gulf coast beaches to southern tip of South America.	Unlikely to occur.	No effect.
American Peregrine Falcon (*Falco peregrinus anatum*)	USFWS (DL) TPWD (T)	A year round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Unlikely to occur.	No effect.

Common Name (Scientific Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Peregrine Falcon (*Falco peregrinus*)	USFWS (DL) TPWD (T)	Both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (*F. p. anatum*) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, *F. p. tundrius* is no longer listed in Texas; but because the subspecies are not easily distinguishable from a distance, reference is generally made only to the species level; see subspecies for habitat.	Unlikely to occur.	No effect.
Sprague's Pipit (*Anthus spragueii*)	USFWS (C)	Winter and migration habitat consists of prairies, grasslands, pastures, and rice fields.	Unlikely to occur.	No effect.
FISH				
Blackside darter (*Percina maculata*)	TPWD (T)	Found primarily in Red, Sulfur and Cypress River basins; clear, gravelly streams; prefers pools with some current, or even quiet pools, to swift riffles.	Does not occur.	No effect.
Shovelnose sturgeon (*Scaphirhynchus platorynchus*)	TPWD (T)	Found primarily in open, flowing channels with bottoms of sand or gravel; spawns over gravel or rocks in an area with a fast current; Red River below reservoir and rare occurrence in Rio Grande.	Does not occur.	No effect.
MAMMALS				
Gray Wolf (*Canis lupus*)	USFWS (LE) TPWD (E)	Extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands.	Does not occur.	No effect.
Red wolf (*Canis rufus*)	USFWS (LE) TPWD (E)	Extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies.	Does not occur.	No effect.
MOLLUSKS				
Texas heelsplitter (*Potamilus amphichaenus*)	TPWD (T)	Primarily found in quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins.	Does not occur.	No effect.
REPTILES				

Common Name (Scientific Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Texas horned lizard (*Phrynosoma cornutum*)	TPWD (T)	Primarily found in open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.	May occur.	No effect.
Timber rattlesnake (*Crotalus horridus*)	TPWD (T)	Primarily found in swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto.	Unlikely to occur.	No effect.

*USFWS Status Definitions

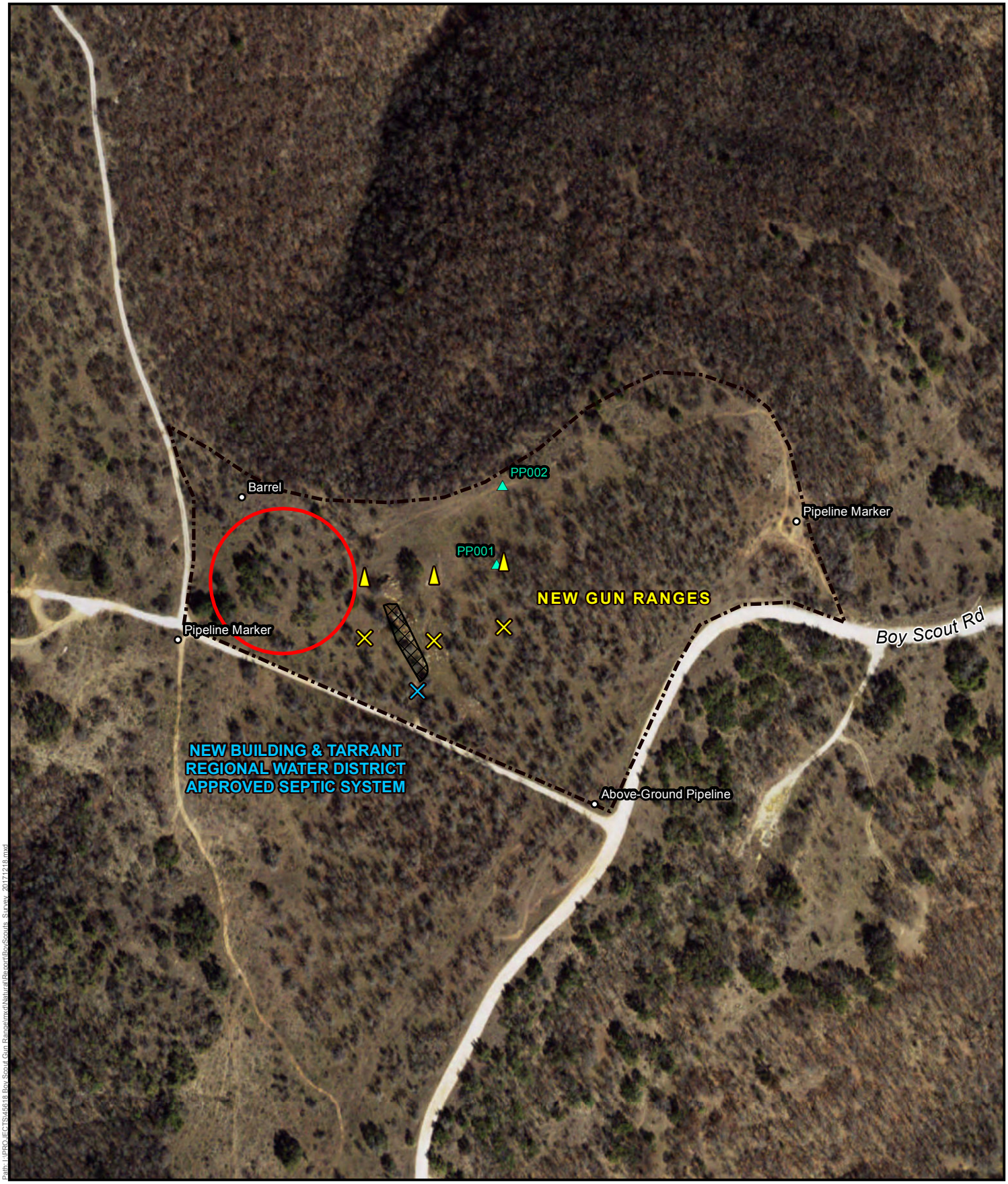
E = Endangered. The ESA specifically prohibits the take of a species listed as endangered. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.

T = Threatened. The ESA specifically prohibits the take of a species listed as threatened. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.

Range or habitat information is from USFWS 2011, TPWD 2011a, LDWF 2011, and Campbell 2003.

ATTACHMENT B

Figure 1 – Site Layout Map



Path: I:\PROJECTS\45618 Boy Scout Gun Range\mxd\Natural\Report\BoyScouts_Survey_20171218.mxd

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THREATENED AND ENDANGERED SPECIES SURVEY

Boy Scouts of America
Wise County, Texas

Survey Map

- Phase I Survey Point
- Photo Point
- Marginal Black-Capped Vireo Habitat
- Project Area
- Trash Dump Area

Background:	NAIP Aerial Imagery 2012
Scale:	1:3,000
Created By:	JFontenot
Approved By:	KJanni
SWCA Project No.:	29955
Date Produced:	12/18/2017

NAD 1983 UTM 14N, US Survey Feet

0 155 310 Feet
0 35 70 Meters

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June 11, 2014
Via email

Longhorn Council – Boy Scouts of America
Attn: Mr. Jeff Peters
850 Cannon Drive
Hurst, TX 76054
jpeters@longhorn.org

SWCA Project No. 25999

Threatened & Endangered Species Survey of an approximate 5-acre property, Wise County, TX

Mr. Peters:

Longhorn Council, Boy Scouts of America contracted SWCA Environmental Consultants (SWCA) to perform a threatened & endangered species (T&E) evaluation on an approximate 5-acre property in Wise County, TX. The subject property is proposed for conversion to a shooting range for use by the Boy Scouts of America.

This report is based on knowledge of the special-status resources in the region, a review of relevant background literature, and a focused field investigation of the Project area. It also provides recommendations for minimizing impacts to these resources and a discussion of permitting requirements.

On June 9, 2014, SWCA biologist Mr. Austin Hill visited the project site for the potential presence of T&E species and habitat. Prior to the visit, SWCA reviewed the state and federal listings for protected species in Wise County, TX and queried the Texas Parks & Wildlife Department's (TPWD) Texas Natural Diversity Database (TXNDD) for known occurrences of protected species in or nearby the project area. The results of the background review and field evaluation are discussed below.

Site Description

The proposed Project is located in the Texas Blackland Prairies "Level IV Ecoregion" of Texas (Griffith et al 2004). The Texas Blackland Prairies form a disjunct ecological

region distinguished from surrounding regions by fine-textured, clayey soils and predominantly prairie vegetation. The predominance of vertisols in this area is related to soil formations in Cretaceous shale, chalk, and marl parent materials. Unlike tallgrass prairie soils that are mostly mollisols in states to the north, this region contains vertisols, alfisols, and mollisols. Dominant grasses included little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), yellow Indiangrass (*Sorghastrum nutans*), and switchgrass (*Panicum virgatum*). This region now contains a higher percentage of cropland than adjacent regions; pasture and forage production for livestock is common. Large areas of the region are being converted to urban and industrial uses. Typical game species include mourning dove and northern bobwhite on uplands and eastern fox squirrel along stream bottomlands.

The proposed Project site is located on a portion of Lake Bridgeport in Wise County, Texas. Lake Bridgeport is a man-made, freshwater reservoir located on the West Fork Trinity River. Owned by the Tarrant Regional Water District, the water impounded within the lake is used for flood control, residential, and commercial sales, irrigation, and recreation. The Boy Scouts own and operate the property located within the Project area. This property currently encompasses a dump-site and an existing shooting range.

The Project site consists of grasslands and forested areas and is characterized by outcroppings of limestone glade. Dominant trees in the Project area include: cedar elm (*Ulmus crassifolia*), live oak (*Quercus virginiana*), mesquite (*Prosopis glandulosa*), shin oak (*Quercus havardii*), ash (*Fraxinus albicans*), fragrant sumac (*Rhus aromatica*), elbow bush (*Forestiera pubescens*), ash juniper (*Juniperus ashei*), and post oak (*Quercus stellata*). Dominant herbaceous and shrub species include: hairy tridens (*Erioneuron pilosum*), yucca (*Yucca* sp.), prickly pear (*Opuntia* sp.), spider milkweed (*Asclepias asperula*), manystem ratany (*Krameria ramosissima*), common plantain (*Plantago major*), Christmas cactus (*Cylindropuntia leptcaulis*), and field brome (*Bromus arvensis*).

The only wildlife identified in the Project area consisted of the following bird species: the tufted titmouse (*Baeolophus bicolor*), painted bunting (*Passerina ciris*), yellow-billed cuckoo (*Coccyzus americanus*), blue-gray gnatcatcher (*Polioptila caerulea*), northern cardinal (*Cardinalis cardinalis*), blue jay (*Cyanocitta cristata*), red-bellied woodpecker (*Melanerpes carolinus*), greater roadrunner (*Geococcyx californianus*), turkey vulture (*Cathartes aura*) and the Carolina chickadee (*Poecile carolinensis*).

No streams, creeks, ponds or wetlands were identified or delineated within the Project area.

Threatened & Endangered Species Habitat Evaluation

In accordance with the Endangered Species Act (ESA) of 1973, SWCA biologists conducted a literature review of available state and federal databases followed by an on-the-ground survey to determine whether any state or federally-listed threatened or endangered species, or their habitats, were present within the Project area. Extensive habitat boundary analysis beyond the study corridor was not conducted for this project.

According to the U.S. Fish and Wildlife Service (USFWS) protected species list for Wise County, TX three federally-listed species potentially occur within the project area: the whooping crane (*Grus americana*; endangered), the black-capped vireo (*Vireo atricapilla*; endangered), as well as one candidate species, Sprague's pipit (*Anthus spragueii*). The Texas Parks & Wildlife Department (TPWD) lists three species as endangered, including the interior least tern (*Sterna antillarum athalassos*), gray wolf (*Canis lupus*), and the red wolf (*Canis rufus*). The TPWD lists seven species as threatened, including American peregrine falcon (*Falco peregrinus anatum*), peregrine falcon (*Falco peregrinus*), blackside darter (*Percina maculata*), shovelnose sturgeon (*Scaphirhynchus platorynchus*), Texas heelsplitter (*Potamilus amphichaenus*), Texas horned lizard (*Phrynosoma cornutum*), and timber rattlesnake (*Crotalus horridus*). Although the bald eagle is delisted, it is still protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Please see **Table 1** for habitat descriptions and federal and state listings for these species. While the USFWS maintains regulatory authority over federally-listed species, the TPWD authority is only applicable when state land or funds are utilized.

The potential for occurrence of each species was summarized according to the categories listed below. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided. Potential for occurrence categories are as follows:

- *Known to occur*—the species has been documented in the project area by a reliable observer.
- *May occur*—the project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- *Unlikely to occur*—either the project area is clearly outside the species' currently known range,

or the project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species.

Those species listed by the USFWS were assigned to one of three categories of possible effect, following USFWS recommendations. The effects determinations recommended by USFWS include:

- *May affect, is likely to adversely affect*—adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.
- *May affect, is not likely to adversely affect*—the proposed action may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial.
- *No effect*—the proposed action will not affect federally listed species or critical habitat.

Whooping Crane; Current Federal Status: Endangered

Habitat & Range Requirements: The Texas population of wild whooping cranes spend their summers in northern Alberta, Canada and winter along the Texas Gulf Coast. In Texas, the species winters on salt flats, marshes, and along barrier islands in and immediately adjacent to the Aransas National Wildlife Refuge on the mid-Texas coast (Matthews and Moseley 1990; Campbell 2003). During migration stopovers, whooping cranes utilize freshwater marshes, wet prairies, grain and stubble fields, shallow lakes, and lagoons with good horizontal visibility, water depth of 12 inches or less, and minimum wetland size suitable for roosting (Armbruster 1990; Howe 1989).

Whooping cranes migrate during both spring and fall through a relatively narrow corridor that basically follows a straight line through the Great Plains, with the cranes traveling through Alberta, Saskatchewan, extreme eastern Montana, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas (Canadian Wildlife Service and USFWS 2009). The primary migration corridor is approximately 200 miles wide, although cranes can be pushed east or west by unfavorable winds.

Determination of Impact: Given how rare whooping cranes are and that the project occurs outside of the primary migration corridor, it is highly improbable that any construction activities would impact any location temporarily occupied by migrant whooping cranes.

Construction of the shooting range is also not expected to result in the loss of any wetland habitat that could be used by whooping cranes, or create any significant collision risks for the species. For these reasons, it is SWCA's opinion that the proposed project will have no effect on this species.

Black-Capped Vireo; Current Federal Status: Endangered

Habitat & Range Requirements: Typical breeding habitat for the black-capped vireo consists of clusters of deciduous shrubs with vegetation cover down to ground level that are separated by narrow grassy or rocky breaks. Total shrub cover in areas occupied by vireos typically ranges from 30 to 60 percent (Campbell 2003). Larger trees may be present in areas occupied by vireos, although the canopy layer is typically open. Shrublands occupied by black-capped vireos usually develop on limestone substrates and are often dominated by oak or sumac; however, the species can also occur on sandy substrates if suitable dense shrubby vegetation is present. Shrub species often present in areas occupied by black-capped vireos in the general project region include Vasey oak (*Quercus vaseyana*), Texas persimmon (*Diospyros texana*), agarita (*Mahonia trifoliolata*), Texas kidneywood (*Eysenhardtia texana*), little walnut (*Juglans microcarpa*), lotebush (*Ziziphus obtusifolia*), bluewood condalia (*Condalia hookeri*), common hop-tree (*Ptelea trifoliata*), and mountain laurel (*Sophora secundiflora*) (Campbell 2003).

Most black-capped vireos arrive on their Texas breeding grounds from late March through early April. Males generally establish territories that range in size from 1 to 10 acres, with an average territory size of 2 to 4 acres (Graber 1957; Tazik and Cornelius 1989). The species may nest more than once in the same year, with migration to the wintering grounds generally occurring in September (Service 1991).

Determination of Impact: The western portion of the proposed ranges contained marginal habitat that may support black-capped vireo. Ideal habitat consists of patchy deciduous broadleaf shrubs from 3 to 15 feet with vegetation extending to the ground and approximately 40 to 70 percent open grassland between. Deciduous shrubs at the site consisted of primarily shin oak and elbow bush with young live oak, young cedar elm, and skunkbush sumac also present to a lesser degree. Adequate broad leaf deciduous shrub structure was present across approximately 50 percent of marginal habitat area but was limited to small patches concentrated under large oak or ash canopies consisting of one or more mature trees greater than 25 feet. The species has the potential to occur in

this marginal habitat, thus the Project may affect, but is not likely to adversely affect the species.

Texas Natural Diversity Database

On June 6, 2014, SWCA requested occurrence records and ArcGIS shapefiles for protected species from the Texas Natural Diversity Database (TXNDD). The TXNDD has not yet responded to our request, however, SWCA keeps records of TXNDD data from previous project requests. Consulting these records for Wise County, no known occurrences of protected species are known to occur within or nearby the project area. Once the TXNDD responds to our request, SWCA will make this information available to the Longhorn Council and specify if any issues other than those addressed in this report would impact the proposed Project.

Conclusions

SWCA conducted a background review, field investigation, and prepared this report in accordance with the Endangered Species Act. No municipal ordinances and/or codes were reviewed. Based on current construction plans, marginal black-capped vireo habitat may be adversely affected by the project. Marginal habitat was identified near the proposed shooting range. SWCA suggests that the site for the proposed shooting range be moved eastward 50 to 100 feet to avoid this habitat. Locations east of this marginal habitat are not suitable to support the species, thus the species is not likely to occur. Consequently, the Project would have no effect on protected species.

The findings presented in this letter report are restricted to and based on SWCA's professional opinion. In the event that the proposed construction activities occur beyond the extent of areas investigated on June 9, 2014, it is suggested that the Boy Scouts contact SWCA to determine potential impacts to T&E species and/or their habitat within the revised Project area.

Within the limitations of schedule, budget, and scope of work, SWCA warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed.

The results and conclusions of this report represent the best professional judgment of SWCA scientists. No other warranty, expressed or implied, is made. Please be aware that

only the USFWS and/or lead federal agency can determine compliance with the Endangered Species Act.

We appreciate the opportunity to conduct these services for the Boy Scouts of America. If you have any questions or require additional information, please contact me by phone (817-394-6506) or email (kjanni@swca.com).

Kevin Janni
Project Manager
SWCA Environmental Consultants

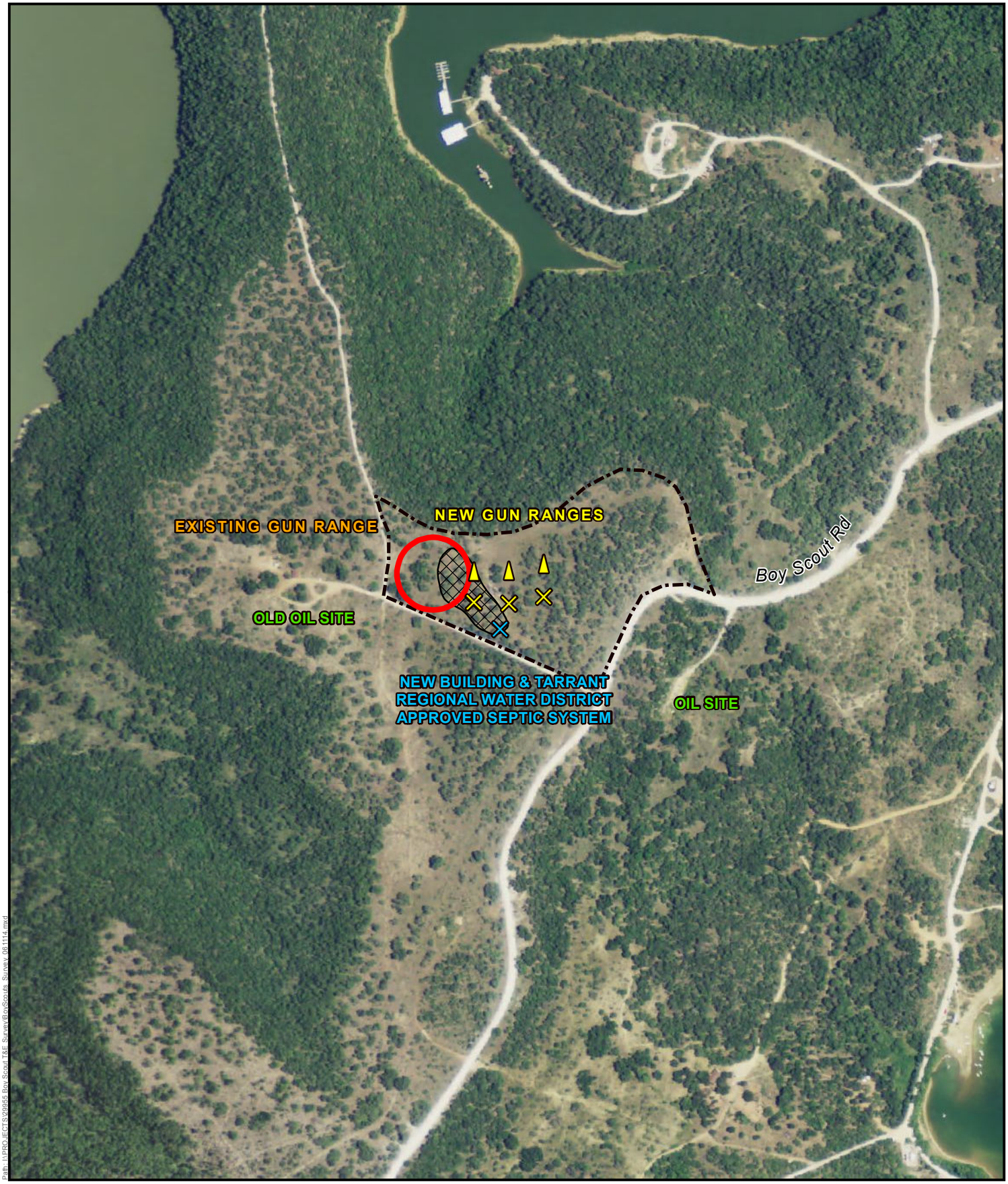
Attachments: Table 1 – Threatened & Endangered Species
Figure 1 – Site Layout Map
Photographic Log of Project Site
References Cited

Table 1. Threatened & Endangered Species.

Common Name (Scientific Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
BIRDS				
Whooping Crane (*Grus americana*)	USFWS (E) TPWD (E)	Migration habitat includes grain fields, shallow lakes, saltwater marshes, playa lakes, and lagoons.	Unlikely to occur.	No effect.
Black-capped vireo (*Vireo atricapilla*)	USFWS (E)	Dense deciduous shrublands with vegetation extending to ground. Habitat typically on limestone substrates.	May occur.	Unlikely to adversely effect.
Bald Eagle (*Haliaeetus leucocephalus*)	USFWS (DL) TPWD (T)	Found primarily near rivers, lakes, or other large waterbodies. Typically nests in mature trees, snags, or on cliffs near water.	Unlikely to occur.	No effect.
Interior Least Tern (*Sterna antillarum athalassos*)	USFWS (LE) TPWD (E)	Nests along sand and gravel bars within braided streams, rivers, when breeding forages within a few hundred feet of colony.	Unlikely to occur.	No effect.
American Peregrine Falcon (*Falco peregrinus anatum*)	USFWS (DL) TPWD (T)	A year round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	Unlikely to occur.	No effect.
Peregrine Falcon (*Falco peregrinus*)	USFWS (DL) TPWD (T)	Both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (*F. p. anatum*) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, *F. p. tundrius* is no longer listed in Texas; but because the subspecies are not easily distinguishable from a distance, reference is generally made only to the species level; see subspecies for habitat.	Unlikely to occur.	No effect.
Sprague's Pipit (*Anthus spragueii*)	USFWS (C)	Winter and migration habitat consists of prairies, grasslands, pastures, and rice fields.	Unlikely to occur.	No effect.
FISH				
Blackside darter (*Percina maculata*)	TPWD (T)	Found primarily in Red, Sulfur and Cypress River basins; clear, gravelly streams; prefers pools with some current, or even quiet pools, to swift riffles.	Unlikely to occur.	No effect.
Shovelnose sturgeon (*Scaphirhynchus platorynchus*)	TPWD (T)	Found primarily in open, flowing channels with bottoms of sand or gravel; spawns over gravel or rocks in an area with a fast current; Red River below reservoir and rare occurrence in Rio Grande.	Unlikely to occur.	No effect.
MAMMALS				
Gray Wolf (*Canis lupus)*	USFWS (LE) TPWD (E)	Extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands.	Unlikely to occur.	No effect.
Red wolf (*Canis rufus*)	USFWS (LE) TPWD (E)	Extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies.	Unlikely to occur.	No effect.
MOLLUSKS				
Texas heelsplitter (*Potamilus amphichaenus*)	TPWD (T)	Primarily found in quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins.	Unlikely to occur.	No effect.

REPTILES				
Texas horned lizard (*Phrynosoma cornutum*)	TPWD (T)	Primarily found in open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.	Unlikely to occur.	No effect.
Timber rattlesnake (*Crotalus horridus*)	TPWD (T)	Primarily found in swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto.	Unlikely to occur.	No effect.

*USFWS Status Definitions
E = Endangered. The ESA specifically prohibits the take of a species listed as endangered. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.
T = Threatened. The ESA specifically prohibits the take of a species listed as threatened. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.
Range or habitat information is from USFWS 2011, TPWD 2011a, LDWF 2011, and Campbell 2003



Path: I:\PROJECTS\29955 Boy Scout T&E Survey\BoyScouts_Survey_061414.mxd

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THREATENED AND ENDANGERED SPECIES SURVEY

Boy Scouts of America
Wise County, Texas

Survey Map

Marginal Black-Capped Vireo Habitat

Project Area

Trash Dump Area

Background:	NAIP Aerial Imagery 2012
Scale:	1:6,000
Created By:	JWalton
Approved By:	KJanni
SWCA Project No.:	29955
Date Produced:	6/11/2014

NAD 1983 UTM 14N, US Survey Feet

0 312.5 625 Feet

0 70 140 Meters

Project No. 29955
Date Photos Taken: June 9, 2014

Photo 1 Ash-shinnery oak patch

Photo 2 East project area, facing east

Photo 3 Far east project area, facing east

Photo 4 General area habitat

Photo 5 Live oak-elbow bush patch

Photo 6 North-central project area, facing west

Project No. 29955
Date Photos Taken: June 9, 2014

Photo 7 Northwest project area, facing south

Photo 8 Shinnery oak patch

Photo 9 South-central project area, facing north

Photo 10 West project area, facing east

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Appendix C

SWCA BSA Phase I ESA Report

Shotgun Sports and Hunter Education Training Center Project
Sid Richardson Scout Ranch, Longhorn Council BSA

Phase I Environmental Site Assessment for the Boy Scouts of America Gun Range in Wise County, Texas

Prepared for

The Boy Scouts of America

Prepared by

SWCA Environmental Consultants

SWCA Project No. 45618

December 2017

PHASE I ENVIRONMENTAL SITE ASSESSMENT FOR THE BOY SCOUTS OF AMERICA GUN RANGE IN WISE COUNTY, TEXAS

Prepared for

The Boy Scouts of America
850 Cannon Drive
Hurst, Texas 76054
Attn: Jeff Peters

Prepared by

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SWCA Project No. 45618

December 2017

EXECUTIVE SUMMARY

This executive summary presents the results of a Phase I Environmental Site Assessment (Phase I ESA) for the proposed location of the Boy Scouts of America Gun Range, approximately 13.7 acres of land near the city of Chico, in Wise County, Texas (the "subject property"). The purpose of this Phase I ESA is to meet due diligence requirements under the Comprehensive Environmental Response, Compensation, and Liability Act prior to project funding by an equity investor.

The client provided mapping of the boundaries of the subject property, and this description was taken as an accurate and true representation of the site. Independent verification of the subject property boundaries was not conducted by SWCA Environmental Consultants (SWCA) as part of this Phase I ESA.

The following list presents selected findings of this Phase I ESA.

- SWCA's review of historical aerial photographs, topographic maps, and other sources found that the subject property and vicinity were historically undeveloped grassland and forested areas with few roads and no structures. The past uses of the subject property and adjacent properties is not considered to be a recognized environmental condition (REC) for the subject property.
- SWCA's interviews with representatives of the subject property did not identify any potential RECs.
- SWCA's review of the GeoSearch environmental database search generated on November 20, 2017, and supplementary searches of the Texas Commission on Environmental Quality (TCEQ) and Railroad Commission of Texas (RRCTX) databases did not identify any relevant listings on, adjacent to, or in the vicinity of the subject property.
- The RRCTX Map Viewer depicted three oil or gas wells and two gas gathering lines in or within the vicinity of the project area. No oil or gas wells or additional petroleum-related infrastructure was depicted on the property. No leaks, spills, or other concerns were observed with these wells or pipelines and they are not considered to be a REC for the subject property.
- SWCA considered the potential for subsurface contaminant vapor migration; however, SWCA did not identify any potential off-site sources of vapor intrusion or vapor encroachment to the subject property.
- SWCA's site reconnaissance on November 15, 2017 verified that nearly the entire subject property is within vacant grassland and forested areas. The following relevant observations were made:
    - One trash pit or pile was observed within the subject property. This trash pile appeared to contain food waste, cafeteria trash, and parts of a fishing pier/boat dock that has been covered with dirt and only remnant surface trash was visible. No evidence of hazardous materials or petroleum products were observed. Although the contents can only be verified by excavation, SWCA presumes that the observed debris is representative of the contents of the pit. Because no unusual odors, evidence of soil staining, or potential sources of contamination were observed in or around the pit, it is not considered to be an REC for the subject property.
    - Adjacent properties were observed to be vacant grasslands and forested areas in all directions, with topography sloping in all directions towards Lake Bridgeport. No stored hazardous materials or petroleum products were observed on the subject property. No evidence of significant ground staining, unusual odors, or potential sources of contamination was noted anywhere on the subject property during the site reconnaissance. No RECs were identified during the site reconnaissance.

SWCA has completed a Phase I ESA of the subject property based on information obtained during the site investigation and the information obtained through the activities of this Phase I ESA, excluding the limitations. The information contained in this report relates only to the subject property and should not be extrapolated or construed to apply to any other site. The description of the subject property as provided herein represents the conditions of the subject property as it existed on the dates of the November 15, 2017 site reconnaissance. The contents of this report are valid for 180 days from the date of the first data collected. In this case, data was first collected on November 15, 2017 (the date of the site reconnaissance). The information presented in this report is intended for the exclusive use of the Boy Scouts of America, and their affiliates, underwriters, lenders, and counsel. Reliance of any other parties on the information presented herein is the sole responsibility of said parties.

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527 for the proposed location of the Boy Scouts of America Gun Range, approximately 13.7 acres of land near Chico, in Wise County, Texas, the property. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report. This assessment has revealed no evidence of RECs in connection with the property.

CONTENTS

APPENDICES

A. Phase I ESA Proposal
B. Credentials
C. Figures
D. GeoSearch Records
E. Site Photographs

1.0 INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment (Phase I ESA) for the location of the Boy Scouts of America Gun Range, approximately 13.7 acres of land near the city of Chico, in Wise County, Texas (the "subject property"). SWCA Environmental Consultants (SWCA) completed this Phase I ESA for the client in accordance with the September 27, 2017, proposed scope of work. A copy of the scope of work is included in Appendix A.

1.1 Purpose

The purpose of this Phase I ESA is to meet due diligence requirements under the Comprehensive Environmental Response, Compensation, and Liability Act prior to project funding by an equity investor.

The Phase I ESA generally follows the standards described in the American Society for Testing and Materials (ASTM) Standard E 1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM 2013). Deletions or deviations from ASTM Standard E 1527-13 are documented in this report. The goal of the processes established by this practice is to assess the property, to the extent practical, for the potential presence of recognized environmental conditions (RECs), defined in the ASTM standard as "the presence or likely presence of any *hazardous substances* or *petroleum products* in, on, or at a *property*: (1) due to any *release* to the *environment*; (2) under conditions indicative of a *release* to the *environment*; or (3) under conditions that pose a *material threat* of a future *release* to the *environment*." De minimis conditions, which generally do not present risks of harm to public health or the environment and which generally would not be the subject of enforcement actions if brought to the attention of appropriate regulating agencies, are not RECs.

This Phase I ESA did not include activities such as inspections or sampling for the presence of asbestos-containing materials, radon, other radioactive substances, vapor intrusion, lead-based paint, non-hazardous wastes and materials, mold, or biological and medical wastes. No soil, air, or water samples were collected for this Phase I ESA.

1.2 Scope of Work

To achieve the objective referenced above, SWCA completed the following tasks:

- Reviewed intermittent topographic maps and/or aerial photographs.
- Surveyed relevant documents in order to assess the subject property's physiography, including a review of the local hydrogeology and geology of the surrounding area.
- Reviewed available federal and state regulatory databases, including supplemental records from the Texas Commission on Environmental Quality (TCEQ) and Railroad Commission of Texas (RRCTX) databases.
- Visually surveyed the subject property by walking on and driving around the subject property and visually surveyed the surrounding properties from the subject property perimeter.

1.3 Limitations

SWCA warrants that qualified professionals in conformance with ethical business practices and industry standards prepared this report. Credentials of the individuals involved in preparing this report are included in Appendix B. Some standard historical sources are not readily available and thus were not used to prepare this Phase I ESA. Because they were disturbed or obscured by roads, structures, or vegetation, not all natural

land surfaces within the subject property were able to be observed. Due to lack of houses and structures within the subject property, no private structures were entered or observed. Because of the lack of available aerial photographs and U.S. Geological Survey (USGS) topographic maps, the commonly used 5-year interval between photographs and topographic dates could not be followed for all photographs and maps reviewed. Based on our professional experience with similar rural sites, SWCA assumed that Sanborn fire insurance maps are not available for the subject property, and that city directories would not be available or would not provide information pertinent to the conclusions of this report. Because supplemental data sources provided sufficient information, these gaps in the data are not thought to have affected SWCA's ability to identify RECs on the subject property. SWCA's findings and conclusions within this assessment do not take into consideration the limitations identified in this report.

1.4 User Reliance

The information contained in this report relates only to the subject property and should not be extrapolated or construed to apply to any other location. The description of the subject property as provided herein represents the conditions of the subject property as it existed on the date of the November 15, 2017 site reconnaissance and data source searches. The information presented in this report is intended for the exclusive use of the Boy Scouts of America, and their affiliates, underwriters, lenders, and counsel. Reliance by any other parties on the information presented herein is the sole responsibility of said parties.

Findings are based solely on the above-referenced methods and limitations, and are valid for 180 days from the date of the first data collected. In this case, data were first collected on November 15, 2017 (the date of the site reconnaissance). The validity of the report can be renewed by updating the following elements:

- Interviews with owners, operators, and occupants.
- Federal, tribal, state, and local government record searches.
- Visual inspections of the subject property and of adjoining properties.
- The declaration by the Environmental Professional responsible for the assessment or update.

2.0 PROPERTY DESCRIPTION

The subject property is the location of the Boy Scouts of America Gun Range, approximately 13.7 acres of land in Wise County, Texas. It is located southwest of the town of Chico, Texas. The subject property consists of vacant grassland and forested areas. The subject property is generally bound to the southeast by Private Road 1706, to the southwest and east by an unnamed lease road, and to the north by a dense forest. The subject property is depicted in Figures 1 and 2 in Appendix C.

3.0 PHYSICAL SETTING ANALYSIS

The following sections present physical characteristics of the subject property, as obtained from available natural history information sources.

3.1 Topography

USGS topographic maps of the region (USGS 2017a) indicate that the northwest half of the subject property is located along a hillside with steep topographic relief to the north until you reach Lake Bridgeport. The southeast half of the subject property is at the top of the hillslope and has significantly less topographic relief. The topography within the vicinity significantly slopes towards Lake Bridgeport in all directions.

The subject property generally ranges in elevation from approximately 970 feet above mean sea level (amsl) to roughly 1,020 feet amsl in the southern sections.

3.2 Geology and Hydrogeology

The subject property is located within the Cross Timbers ecoregion of the North-Central Plains physiographic province of Texas. The North Central Plains region of Texas is the southern-most extension of a larger physiographic region known as the Central Lowlands which extends across much of the central Unites States. This region comparted to the Coastal Plains to the east, is characterized by higher, more rolling, rocky and more arid landforms. In places, small streams have cut substantial canyons as they make their way to the larger rivers of the areas.

The Cross Timbers ecoregion is a transitional area between the once prairie, now winter wheat growing regions to the west, and the forested low mountains or hills of eastern Oklahoma and Texas. The region stretches from southern Kansas into central Texas, and contains irregular plains with some low hills and tablelands. It is a mosaic of forest, woodland, savanna, and prairie. The Cross Timbers ecoregion is not as arable or as suitable for growing corn and soybeans as the Central Irregular Plains to the northeast. The transitional natural vegetation of little bluestem grassland with scattered blackjack oak and post oak trees is used mostly for rangeland and pastureland, with some areas of woody plant invasion and closed forest. Oil production has been a major activity in this region for more than 80 years.

More specifically, the project area is located within the Western Cross Timbers sub-region of the Cross timbers ecoregion. This region covers the wooded areas west of the Grand Prairie on sandstone and shale beds. The landscape has cuesta topography consisting of sandstone ridges with a gentle dip slope on one side and as deeper scarp on the other. The soils are mostly fine sandy loams with clay subsoils that retain water. As in the Eastern Cross Timbers, the dominant trees are post oak and blackjack oak with an understory of greenbrier, little bluestem, and purpletop grasses. Some researchers contend that these woodland areas would be savanna-like if they experienced fire, although one early account described the Cross Timbers as “an immense natural hedge” or belt of thick impenetrable forest. It is likely that there were more prairie openings between the belts of forest. The area has a long history of coal, oil, and natural gas production from the Pennsylvanian sandstone/limestone/shale beds. Deeper soils in the eastern part of this ecoregions support a dairy industry, pastureland, and cultivation of forage sorghum, silage, corn, and peanuts.

The surface geology of the subject property is mapped as the Jasper Creek Formation, a formation that extends around the majority of Lake Bridgeport and extends south. This formation consists of shale, gray, weathers tan, silty and sandy, locally abundant ferruginous nodules, sparsely fossiliferous, numbers flaggy sandstone beds bearing ripple marks and horizontal laminae, local fine-grained channel-fill bodies in upper part with soft-sediment-deformed beds and fossil plant debris.

Surface water drainage for the subject property is oriented south to north toward Lake Bridgeport. This lake is part of the Trinity River basin. The Trinity River Basin is the largest river basin with a watershed area entirely within the state of Texas. The basin’s namesake river was named La Santisima Trinidad, “the Most Holy Trinity,” by early Spanish explorers. From the confluence of its Elm and West Forks near Dallas, the Trinity River flows to Trinity Bay, which drains to the Gulf of Mexico. Lake Bridgeport is located within the West Fork of the Trinity River. The reservoir was authorized by State Board of Water Engineers on May 1, 1928. Construction of Lake Bridgeport and the original Bridgeport Dam started on January 23, 1930. The dam was completed December 15, 1931 and impoundment began on April 1, 1932 (Texas Natural Resources Conservation Commission [TNRCC] 2000; Texas Water Development Board [TWDB] 2017a).

The subject property is not underlain by any major or minor aquifers (TWDB 2011).

3.3 Soils

A review of Soil Survey Geographic Database (SSURGO) soils data from the Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2017a) indicates that most of the subject property is mapped as Bonti fine sandy loam and Palopinto very stogy clay loam. The Bonti series consists of well drained soils with high runoff and consists of loamy and/or clayey residuum weathered from sandstone and/or claystone. Water in the most restrictive layer is moderately high. Slopes range from 1 to 5 percent and are found on ridges on hills. The Palopinto series is well drained, found on ridges on hills, and is formed from parent material consisting of stony and loamy residuum weathered from limestone. Water movement in the most restrictive layer is moderately low.

4.0 HISTORICAL PROPERTY USES AND RECORDS REVIEW

The history of the subject property and adjacent properties was reviewed in accordance with the applicable ASTM standards, except as noted in Section 1.3. Historical uses of the subject property were determined based on a review of readily available, reasonably ascertainable historical data, including historical topographic maps and aerial photographs. Based on our professional experience with similar rural sites, SWCA assumed that Sanborn fire insurance maps are not available for the subject property, and that city directories would not be available or would not provide information pertinent to the conclusions of this report.

4.1 Historical Map and Photograph Review

SWCA reviewed USGS topographic maps of the area dated from 1960 to 2013. Copies of the applicable portions of reviewed topographic maps are provided in Appendix D. The subject property and vicinity were depicted as vacant, undeveloped land in every topographic map reviewed.

SWCA reviewed historical aerial photographs of the subject property spanning from 1995 to 2017. These aerial photographs generally correlate with the topographic map review and on-site evaluation in showing the subject property to be comprised of vacant land and lease roads. None of the aerial images or topographic maps depicted any industrial or other uses of concern.

4.2 Previously Completed Reports

SWCA was not provided with nor is aware of any previously completed Phase I ESA reports for the subject property.

4.3 Interviews

During site reconnaissance on November 15, 2017, Austin Hill spoke with a Jeff Peters, Director of Support Services for the Boy Scouts of America, about the subject property. He mentioned a previously existing dump site that consisted of food waste, cafeteria trash, and parts of a fishing pier/boat dock that has been covered with dirt and only remnant surface trash was visible. He was unaware of any spills, existing underground storage tanks, or any environmental concerns on the property.

The result of this interview does not indicate any RECs for the subject property.

5.0 ENVIRONMENTAL REGULATORY REVIEW

SWCA conducted an environmental regulatory review to establish the environmental history of the subject property and surrounding area to ascertain whether hazardous waste or hazardous material management, handling, treatment, or disposal activities have occurred on or near the subject property.

5.1 Federal and State Environmental Records

An environmental database report generated by GeoSearch, on November 20, 2017, was used to access environmental records for the subject property and surrounding areas (as needed) (see Appendix D). The databases searched by GeoSearch include those specified by ASTM Standard E 1527-13, as well as several additional federal and state databases and databases proprietary to GeoSearch. GeoSearch updates its records in accordance with ASTM Standard E 1527-13 guidelines. ASTM standard search distances were followed. Additional listed facilities that GeoSearch has not identified may exist within a 1-mile radius of the subject property.

SWCA supplemented the GeoSearch database search with reviews of:

- TCEQ Petroleum Storage Tank Geographic Information System (GIS) Map Viewer (TCEQ 2017a), and
- The TCEQ list of all pending TCEQ enforcement actions (TCEQ 2017b).

SWCA's review of GeoSearch's environmental database report and the state databases did not identify any listings occurring on or immediately adjacent to the subject property.

SWCA also considered the potential for subsurface contaminant vapor migration. However, SWCA did not identify any potential off-site sources of vapor intrusion or vapor encroachment to the subject property. Appendix D provides copies of the GeoSearch reports.

5.2 Oil and Gas Records

SWCA also used the RRCTX Public Geographic Information System (GIS) Map Viewer to search for oil and gas wells and pipeline data (RRCTX 2017). The map viewer showed three oil or gas wells and two gas gathering lines in or within the vicinity of the project area. According to the viewer, one oil well is located to the south adjacent to the property and one plugged oil well is located to the west of the property. Two parallel gas gathering lines transect the subject property along the southeast boundary of the subject property. One line belongs to Targa Midstream Services, LLC, the other to Enlink Midstream Services, LLC. The third line is within the vicinity to the southwest of the subject property, but does not transect the property. This natural gas gathering line belongs to White Oak Operating Company, LLC.

6.0 PROPERTY RECONNAISSANCE

Austin Hill and Allison Locatell of SWCA completed the Phase I ESA site investigation of the subject property on November 15, 2017. The subject property was observed by driving and walking to various points within the property boundaries. Photographs taken during the property reconnaissance are included in Appendix E.

6.1 Property Inspection

The subject property is vacant grasslands and forested areas. The subject property is generally bound to the southeast by Private Road 1706, to the southwest and east by an unnamed lease road, and to the north by a dense forest. No additional structures were observed during site reconnaissance.

During site reconnaissance, one rusted trash barrel and a covered dump site with small pieces of trash, wood, glass, and cans were observed. No evidence of any RECs were observed.

Two pipelines were observed during site reconnaissance. One was underground and identified by pipeline markers along the road at the southwest corner of the subject property. One pipeline was exposed above ground along the southeast corner of the subject property. No evidence of spills, staining, unusual odors, or potential sources of contamination, beyond a condition that would be described as *de minimis*, was observed on or adjacent to the subject property during the site reconnaissance.

6.2 Physical Features of the Subject Property and Vicinity

Features listed below include descriptions of potential issues related to contamination that are known to sometimes arise. Geospatial data for each of the following features within the subject property have been provided in electronic format separate from this report.

Trash Pits – Pits and piles used to dump trash and debris are common in rural areas, and many are regularly burned. When trash pits are full, they are often covered as a new pit is dug next to it. Therefore, additional trash pits may exist adjacent to the ones identified. The contents of trash pits cannot be verified except by

excavation. One trash pit was observed during field reconnaissance and did not appear to contain hazardous materials or petroleum products.

7.0 PHASE I ESA FINDINGS

The following list presents selected findings of this Phase I ESA.

- SWCA's review of historical aerial photographs, topographic maps, and other sources found that the subject property and vicinity were historically undeveloped grassland and forested areas with few roads and no structures. The past uses of the subject property and adjacent properties is not considered to be a REC for the subject property.
- SWCA's interviews with representatives of the subject property did not identify any potential RECs.
- SWCA's review of the GeoSearch environmental database search generated on November 20, 2017, and supplementary searches of TCEQ and RRCTX databases did not identify any relevant listings on, adjacent to, or in the vicinity of the subject property.
- The RRCTX Map Viewer depicted three oil or gas wells and two gas gathering lines in or within the vicinity of the project area. No oil or gas wells or additional petroleum-related infrastructure was depicted on the property. No leaks, spills, or other concerns were observed with these wells or pipelines and they are not considered to be a REC for the subject property.
- SWCA considered the potential for subsurface contaminant vapor migration; however, SWCA did not identify any potential off-site sources of vapor intrusion or vapor encroachment to the subject property.
- SWCA's site reconnaissance on November 15, 2017 verified that nearly the entire subject property is within vacant grassland and forested areas. The following relevant observations were made:
    - One trash pit or pile was observed within the subject property. This trash pile appeared to contain food waste, cafeteria trash, and parts of a fishing pier/boat dock that has been covered with dirt and only remnant surface trash was visible. No evidence of hazardous materials or petroleum products were observed. Although the contents can only be verified by excavation, SWCA presumes that the observed debris is representative of the contents of the pit. Because no unusual odors, evidence of soil staining, or potential sources of contamination were observed in or around the pit, it is not considered to be a REC for the subject property.
    - Adjacent properties were observed to be vacant grasslands and forested areas in all directions, with topography sloping in all directions towards Lake Bridgeport. No stored hazardous materials or petroleum products were observed on the subject property. No evidence of significant ground staining, unusual odors, or potential sources of contamination was noted anywhere on the subject property during the site reconnaissance. No RECs were identified during the site reconnaissance.

8.0 PHASE I ESA CONCLUSIONS

SWCA has completed a Phase I ESA of the subject property based on information obtained during the site investigation and through the activities of this Phase I ESA, excluding the limitations. The information contained in this report relates only to the subject property and should not be extrapolated or construed to apply to any other site. The description of the subject property as provided herein represents the conditions of the subject property as it existed on the date of the November 15, 2017

site reconnaissance. The contents of this report are valid for 180 days from the date of the first data collected. In this case, data was first collected on November 15, 2017 (the date of the site reconnaissance). The information presented in this report is intended for the exclusive use of the Boy Scouts of America, and their affiliates, underwriters, lenders, and counsel. Reliance of any other parties on the information presented herein is the sole responsibility of said parties.

We have performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E 1527 for the proposed location of the Boy Scouts of America Gun Range, approximately 13.7 acres of land near the city of Chico in Wise County, Texas, the *property*. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this *report*. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the *property*.

9.0 REFERENCES

American Society for Testing and Materials (ASTM). 2013. *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. Document No. E 1527-13.

Natural Resources Conservation Service (NRCS). 2017. Web Soil Survey. Produced by the National Cooperative Soil Survey. Available at: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed December 2017.

Railroad Commission of Texas (RRCTX). 2017. Public GIS Map Viewer. Available at: http://www.rrc.state.tx.us/about-us/resource-center/research/gis-viewers/. Accessed December 2017.

Texas Commission on Environmental Quality (TCEQ). 2017a. TCEQ Petroleum Storage Tank GIS Map Viewer. Available at: http://tceq.maps.arcgis.com/apps/webappviewer/index.html?id=d98a00a3964e49b4b9d60d6c96676969. Accessed December 2017.

———. 2017b. List of all pending TCEQ enforcement actions. Available at: http://www.tceq.texas.gov/assets/public/compliance/enforcement/penenfac/penenfac.pdf. Accessed December 2017.

Texas Natural Resources Conservation Commission (TNRCC). 2000. Texas Water Quality Inventory: Basin 2 Red River. Available at: http://www.tceq.state.tx.us/assets/public/comm_exec/pubs/sfr/050_00/vol2_basin02.pdf. Accessed December 2017.

Texas Parks and Wildlife Department. 2015. Panhandle Playa Lakes. Available at: https://tpwd.texas.gov/landwater/land/habitats/high_plains/wetlands/playa.phtml. Accessed December 2017.

Texas Water Development Board (TWDB). 2011. Aquifers of Texas – Report 380. Available at: http://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R380_AquifersofTexas.pdf. Accessed December, 2017.

———. 2017a. Texas River Basin Summaries. Available at: http://www.twdb.texas.gov/surfacewater/rivers/river_basins/index.asp. Accessed December, 2017.

U.S. Geological Survey (USGS). 2017. USGS National Topographic Map Database, TopoView Interactive Map Viewer and Downloader. Available at: https://ngmdb.usgs.gov/maps/Topoview/viewer/#4/40.00/-100.00. Accessed December 2017

10.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in §312.10 of 40 Code of Federal Regulations (CFR) 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312. Our qualifications are presented in Appendix B of this report.

January 5, 2018

Micah Chambers
Environmental Professional / Director

Date

APPENDIX A

Phase I ESA Proposal

SERVICES AGREEMENT

Arlington Office
2201 Brookhollow Plaza Dr, Suite 400
Arlington, Texas 76006
Tel 817.394.6506 Fax 817.394.6516
Tax I.D. Number 860483317

This Services Agreement ("Agreement") is entered into as of the 27th day of September, 2017 between SWCA, Incorporated, an Arizona corporation that does business as SWCA Environmental Consultants ("SWCA"), and the client identified below ("Client") (or each entity individually "Party" and collectively "Parties"). SWCA and Client agree as follows:

BASIC TERMS

Client Information

Client (complete legal name): Boy Scouts of America

Client's State of Incorporation/Organization:

Street Address: 850 Cannon Drive

City: Hurst State: Texas Zip Code: 76054

Main Client Contact Name: Jeff Peters
Email: jeff.peters@scouting.org
Phone: 817-231-8503
Fax:

☐ Send Invoices to Main Address / Billing Contact:
☒ Send Invoices via Email: jeff.peters@scouting.org
☐ Send Invoices to Alternate Billing Address (below)
Billing Contact:
Street Address:
City: State: Zip Code:
Phone: Email:

Basic Project Information

Project Title: Boy Scouts Proposed Gun Range Environmental Services
Project Number: 45618
Project County: Wise
Project Manager: Austin Hill
Project City:
Project State: Texas

Scope of Services

The services to be provided by SWCA ("the Services") are described as follows or in a document attached to this Agreement and referred to as the "Statement of Work" or "SOW" (which may be labeled as Exhibit A).

SWCA will complete an update of the previously conducted Threatened and Endangered Species Survey, by contacting USFWS for their opinion, as well a completing a field visit to evaluate for golden-cheeked warbler. In addition, SWCA will complete a Phase I ESA (scope of the Phase I is included as "Attachment A"). Finally, SWCA will provide a discussion on "environmental justice" as it would relate to the completion of a NEPA Environmental Assessment (EA; this scope does not include the completion of a NEPA EA).

SWCA will provide the results of this work in a report outlining the results of the Phase I ESA and a separate report updating the T&E survey and USFWS coordination. The language related to environmental justice will be provided separately in an email.

Work Schedule

Estimated Start Date: The estimated date by which SWCA is expected to begin performing the Services ("Estimated Start Date") is as follows (check applicable box): ☐ as described in SOW or ☒ September 28, 2017.

Estimated Completion Date: The estimated date by which SWCA is expected to complete the Services ("Estimated Completion Date") is as follows (check applicable box): ☐ as described in SOW or ☒ October 31, 2017.

SWCA's Fees

The fees payable for the Services shall be as follows (check applicable box):

☒ $5,000.00 "Fixed Fee" basis for the Services described in the Statement of Work.

☐ $ "Time and Materials, Not-To-Exceed", at rates quoted in the SWCA Rate Schedule which may be labeled as Exhibit B.

☐ $ "Time and Materials" (estimated contract value; no ceiling) at rates quoted in the SWCA Rate Schedule which may be labeled as Exhibit B.

☐ $ N/A "Time and Materials On-Call" at rates quoted in the SWCA Rate Schedule which may be labeled as Exhibit B.

☐ $ per unit, not to exceed $ total contract value "Unit Fee Max" (eg: per day; with contract ceiling) at rates quoted in the SWCA Rate Schedule which may be labeled as Exhibit B.

☐ $ per unit "Unit Fee On-Call" (eg: per day; estimated contract value; no ceiling).

Sales Tax (check applicable box)

☐ Sales Taxes are NOT included in the contract value specified above, if any (i.e., Sales Taxes will be billed to Client in addition to the specified contract value).

☐ Sales Taxes are included in the contract value specified above, if any.

☒ Sales Taxes not applicable.

Invoicing and Payment

Deposit: Client agrees to provide SWCA with a deposit of $0.00 promptly upon Client's execution of this Agreement as an advance deposit towards payment of fees and any reimbursable expenses payable under this Agreement. If Client does not provide such deposit, SWCA may delay beginning work until such deposit is received or may terminate this Agreement by written notice to Client. The deposit may be applied to amounts currently due to SWCA and unpaid or SWCA may hold the deposit and apply it to the final invoice(s).

Reimbursement of Expenses: Client shall reimburse SWCA for expenses as described in the SOW and in SWCA's Rate Schedule which may be labeled as Exhibit B as referenced above.

Payment Terms: SWCA shall generally invoice Client monthly for services rendered (based on percentage of completion/hours expended, as applicable) and expenses incurred. Invoices are payable upon Client's receipt of the invoice and invoices become past due if payment is not received within thirty (30) days after the date of the invoice. Overdue amounts bear interest at the rate of 1.5% per month until paid and are subject to a monthly late-payment service charge equal to the greater of $200 or 1% of the overdue balance.

Manner of Payment: Unless a different manner of payment is requested by SWCA, payments are to be remitted as follows:

- *Preferred Payment Method*: ACH/EFT: Routing number – 071922777; Account number – 7811583501; Account Type – Business Checking; Bank Name – First American Bank; Location: - Elk Grove, Illinois. Submit remittance advice to payment@swca.com.
- *Alternate Payment Method*: Via check mailed to: P.O. Box 92170, Elk Grove, IL 60009.

Acceptance

If this Agreement is not returned to SWCA duly executed on behalf of Client within thirty (30) days from Client's receipt of this Agreement, SWCA may rescind this Agreement by written notice to Client.

Special Terms

In addition to the Basic Terms set forth above, and General Terms set forth below, the Parties agree to the terms set forth in the following Special Terms. In case of a conflict, the Special Terms shall take precedence.

n/a

SWCA, Incorporated	**Client:** Longhorn Council, Boy Scouts of America
By:	**By:**
(*signature*)	(*signature*)
Name: Micah Chambers	**Name:** Jeffrey Peters
Title: Director	**Title:** Director of Support Services
Date:	**Date:**

APPENDIX B

Credentials

AUSTIN HILL, M.S., ORNITHOLOGIST / BIOLOGIST

Mr. Hill has more than 7 years of experience in wetland determination/delineation for a variety of project sites in various locations throughout Texas, Oklahoma, and northern Louisiana for the natural resources division at SWCA's Arlington, Texas office. Mr. Hill has more than 11 years of experience conducting avian research and surveys. During his time with SWCA he had experience conducting numerous Phase I Environmental Site Assessments across Texas and Oklahoma.

Mr. Hill also has 6 years of research experience as an undergraduate at Southwestern University, a Master's student at Texas State University studying a coastal waterbird (reddish egret), and an employee for Texas A&M University. Prior to SWCA, he worked as an avian field technician in Gatesville, TX and Fort Hood for Texas A&M University studying two endangered songbirds (golden-cheeked warbler and black-capped vireo).

YEARS OF EXPERIENCE

11

EXPERTISE

Wetland Delineation

Trimble GPS

ArcGIS/Mapping

Threatened & Endangered species surveys

Avian Surveys

EDUCATION

M.S., Population and Conservation Biology; Texas State University: San Marcos, Texas; 2009

B.S., Biology, minor, Chemistry; Southwestern University; Georgetown, Texas; 2005

TRAINING

Heartsaver First Aid/CPR/AED, The American Heart Association

Basic Wetland Delineation, Wetland Training Institute, Inc.

Advanced Airport Wildlife Hazard Management Training, Loomacres Wildlife Managment

SELECTED PROJECT EXPERIENCE (*denotes project experience prior to SWCA)

Confidential Wind Project. Grady and Stephens Counties, Oklahoma SWCA conducted natural and cultural resource surveys including a Phase I ESA of a 250MW wind power project. *Role: Environmental Specialist. Responsible for field assessment and documentation of potential contaminant sources.*

Confidential Phase I ESA. Nationwide. SWCA completed Phase I ESAs for seven locations in West Virginia, North Dakota, Louisiana, and Texas, in accordance with ASTM Standard E 1527-13. The purpose of the Phase I ESA was to meet the due diligence requirements for land acquisition. *Role: Environmental Specialist. Responsible for field assessment and documentation of potential contaminant sources.*

Confidential Project. Mitchell County, Texas SWCA completed a Phase I ESA at the proposed site of an Electric Generation Station in west Texas, in accordance with ASTM Standard E 2247-16. The purpose of the Phase I ESA was to meet the due diligence requirements for land acquisition. *Role: Environmental Specialist. Responsible for field assessment and documentation of potential contaminant sources.*

Confidential Project. Robertson County, Texas SWCA completed a Phase I ESA on a 1.78 acre property in accordance with ASTM Standard E 1527-13. The purpose of the Phase I ESA was to meet the due diligence requirements for land acquisition. *Role: Environmental Specialist. Responsible for field assessment and documentation of potential contaminant sources.*

Confidential Project. Dallas County, Texas SWCA completed a Phase I ESA one of in accordance with ASTM Standard E 1527-13. The purpose of the Phase I ESA was to meet the due diligence requirements for land and asset acquisition. *Role: Environmental Specialist. Responsible for field assessment and documentation of potential contaminant sources.*

Confidential Project. Van Zandt County, Texas SWCA completed a Phase I ESA on a transmission line and associated facilities of in accordance with ASTM Standard E 1527-13. The purpose of the Phase I ESA was to meet the due diligence requirements for asset acquisition. *Role: Environmental Specialist. Responsible for field assessment and documentation of potential contaminant sources.*

MICAH CHAMBERS, B.S., DIRECTOR / ECOLOGIST

Mr. Chambers is a Director in SWCA's Arlington, Texas office. He is responsible for client management, business development, project execution, QA/QC plans, and project reviews for the Texas Gulf Coast region. Mr. Chambers also manages projects, milestones, subcontractors, technical staff, fieldwork, and written deliverables.

Mr. Chambers' technical skills include extensive experience in Phase 1 Environmental Site Assessments (ESAs) for a variety of project sites, including undeveloped land, commercial/retail, industrial, and petroleum facilities throughout the United States, including Texas, Louisiana, Mississippi, Utah, and Colorado. He also has many years of experience with wetland determinations/delineations, threatened and endangered species assessments, cultural and historical resource assessments, floodplain assessments, and other various components of the National Environmental Policy Act (NEPA).

YEARS OF EXPERIENCE

15

EXPERTISE

Environmental Site Assessments

Wetland delineations

NEPA compliance

USACE 10/404/401 permitting

Environmental compliance

GIS and GPS software

Ordinary high water mark delineations

EDUCATION

B.S., Rangeland Ecology and Management; Texas A&M University, College Station; 2003

TRAINING

Texas Department of Transportation Precertification; Environmental Site Assessments and Wetland Delineations

Federal Energy Regulatory Commission Environmental Inspection/Regulatory and Compliance Oversight

Trimble GPS Certified

Throughout his career, Mr. Chambers has assisted clients with U.S. Army Corps of Engineers (USACE) Section 10, 404, and 401 permitting through multiple USACE Districts. He is trained in Environmental Inspection and Compliance Oversight through the Federal Energy Regulatory Commission (FERC).

SELECTED PROJECT EXPERIENCE

Rocky Top Ready Mix Phase I Environmental Site Assessment Portfolio; Denver County, Colorado (November 2006 – March 2007): Performed the Phase I ESAs for three concrete ready-mix facilities throughout Colorado. Assisted in assuring compliance with ASTM E 1527-05 (AAI). Role: Environmental Specialist. Client: CEMEX.

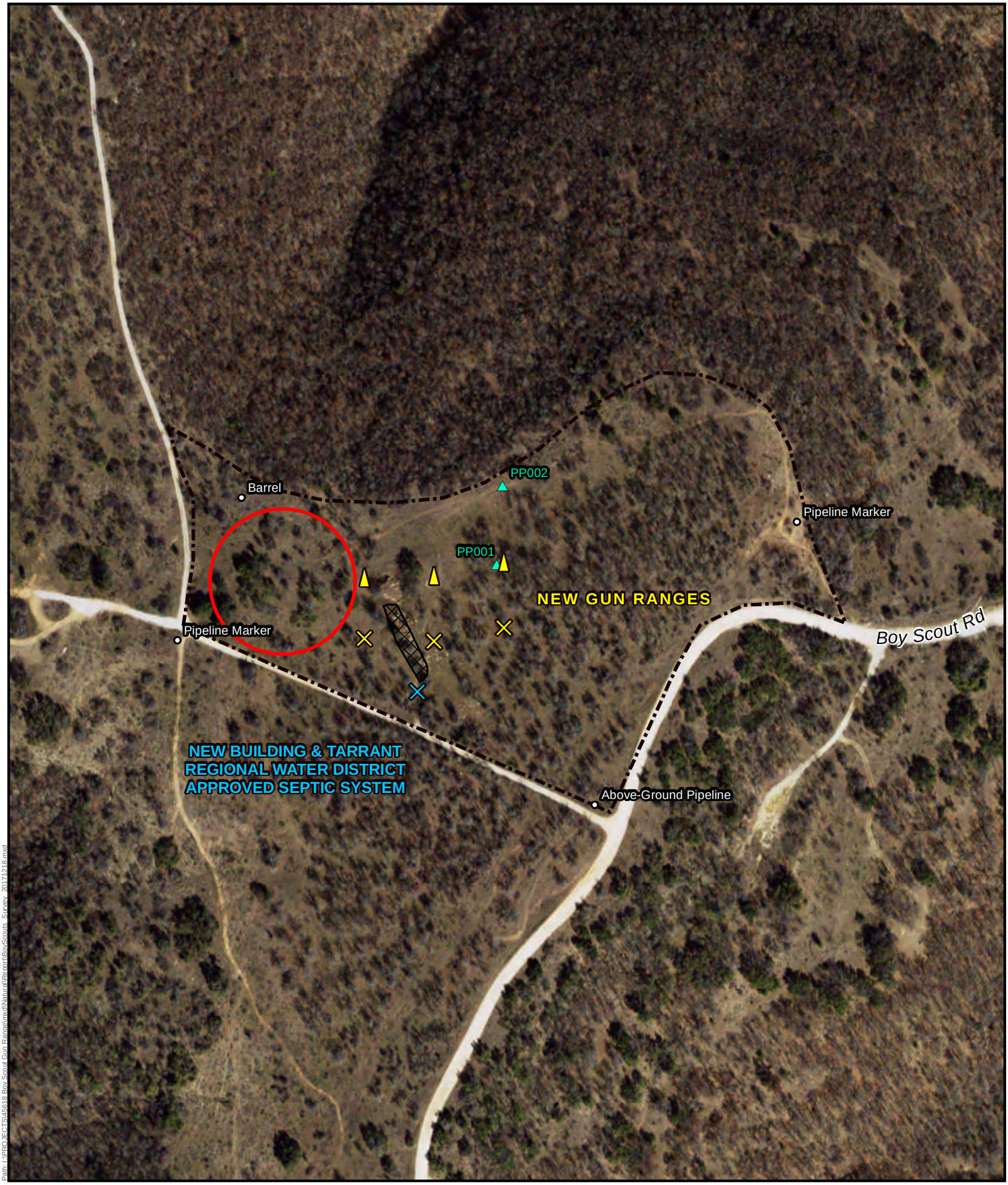
Louisiana Midstream Gas Services Well Connects; Northwest Louisiana (March 2009 – August 2011): Performed wetland delineations; projected species surveys; cultural resource surveys; and USACE, Louisiana Department of Environmental Protection, and City of Shreveport, Louisiana, permitting for over 100 well connect pipelines throughout northwest Louisiana. Role: Project Manager and Environmental Specialist. Client: Louisiana Midstream Gas Services.

Eagle Ford Shale Play Environmental Due Diligence (November 2011 – June 2013): Performed an environmental desktop review on 61,000 acres located in LaSalle, McMullen, Wilson, and Gonzales Counties of south Texas. SWCA assessed wetlands, threatened and endangered species, cultural resources, 16 existing well sites, existing environmental documents, potential environmental permitting requirements, hazardous materials database, and the water resources database. SWCA's summary of findings report included the identification of critical path items associated with regulatory permitting and oil and gas development. Role: Project Manager. Client: Marubeni Corporation.

RCP Wells Phase I Environmental Site Assessment, Claiborne Parish, Louisiana (March – September 2012): Performed Phase I ESA reviews for a large group of existing oil and gas wells in northern Louisiana. Role: Environmental Specialist. Client: WSGP Gas Producing, LLC.

APPENDIX C

Figures



Path: I:\PROJECTS\45618 Boy Scout Gun Range\mxd\Natural\Report\BoyScouts_Survey_20171218.mxd

SWCA ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.®

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(817) 394-6516 fax
www.swca.com

THREATENED AND ENDANGERED SPECIES SURVEY

Boy Scouts of America
Wise County, Texas

Survey Map

- Phase I Survey Point
- Photo Point
- Marginal Black-Capped Vireo Habitat
- Project Area
- Trash Dump Area

Background:	NAIP Aerial Imagery 2012
Scale:	1:3,000
Created By:	JFontenot
Approved By:	KJanni
SWCA Project No.:	29955
Date Produced:	12/18/2017

NAD 1983 UTM 14N, US Survey Feet

0 155 310 Feet
0 35 70 Meters

APPENDIX D

GeoSearch Records

GeoSearch
On time. On target. In touch.™

Historical Topographic Maps

Target Property:

Boy Scout Gun Range
Private Road 1706
Chico, Wise, Texas 76426

Prepared For:

SWCA

Order #: 96301
Job #: 211741
Project #: 45618
Date: 11/22/2017

Target Property Summary

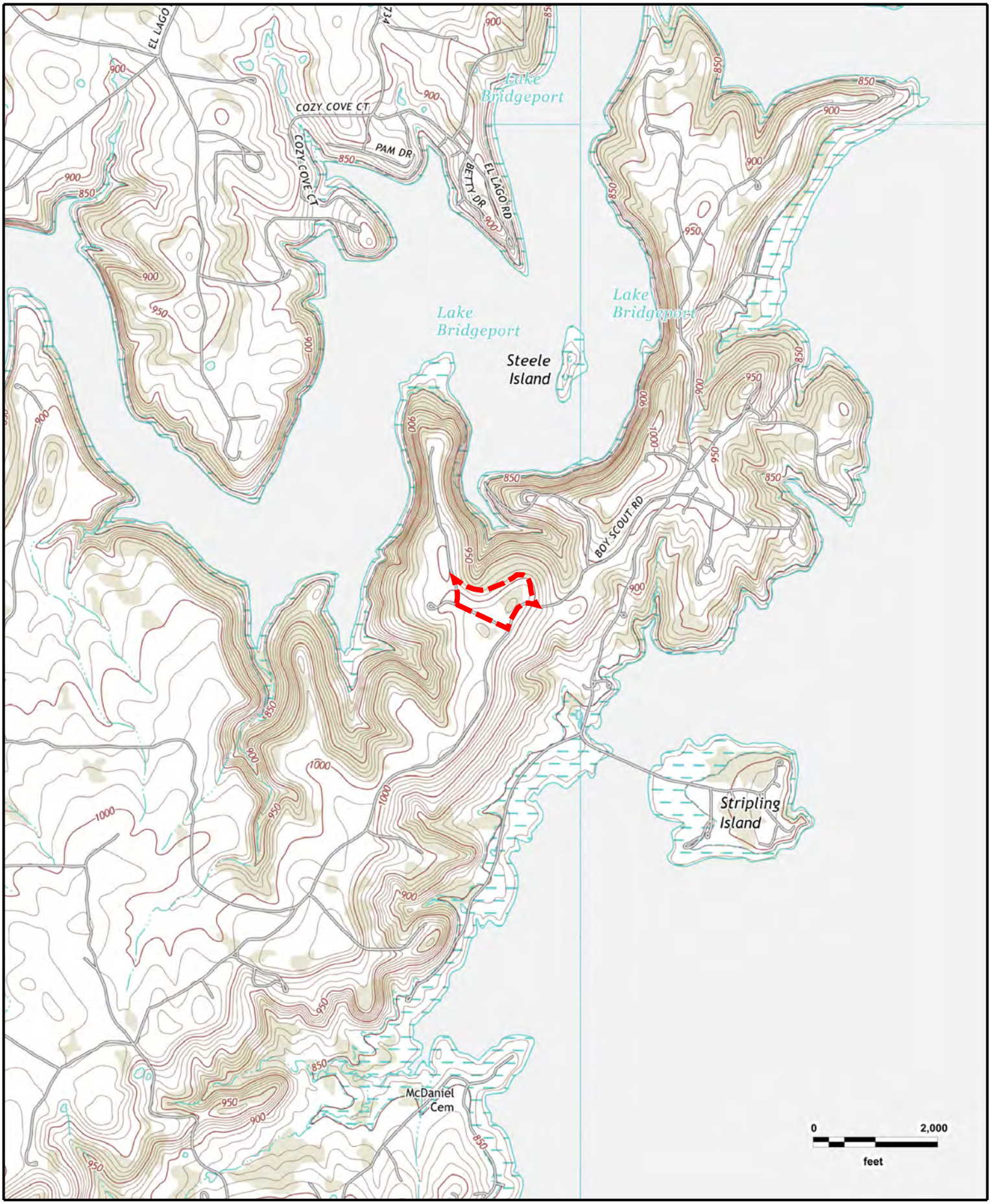
Boy Scout Gun Range
Private Road 1706
Chico, Wise, Texas 76426

USGS Quadrangle: ***WIZARD WELLS***
Target Property Geometry: ***Area***

Target Property Longitude(s)/Latitude(s):
(-97.881494164, 33.228896849), (-97.881435156, 33.228820565), (-97.878806591, 33.227783999), (-97.878667116, 33.228142984), (-97.878280878, 33.228699409), (-97.877937555, 33.228905824), (-97.877669334, 33.228905824), (-97.877261639, 33.228816078), (-97.877476215, 33.229157110), (-97.877562046, 33.229345575), (-97.877626419, 33.229704554), (-97.877690792, 33.229910967), (-97.877798080, 33.230054558), (-97.878001928, 33.230153276), (-97.878334522, 33.230153276), (-97.878516912, 33.230027634), (-97.879021168, 33.229785324), (-97.879825830, 33.229516090), (-97.880201340, 33.229471218), (-97.880587578, 33.229525065), (-97.880941629, 33.229632759), (-97.881188393, 33.229740452), (-97.881488800, 33.229919941), (-97.881649733, 33.230009685), (-97.881456614, 33.229381473), (-97.881445885, 33.229139161)

Topographic Map Summary

Date	Quadrangle	Scale
	Wizard Wells, TX (2013)	1" = 2000'
	Bridgeport West, TX (2013)	
1960 PHOTOREVISED 1978	Wizard Wells, TX	1" = 2000'
1960	Wizard Wells, TX	1" = 2000'
1960 PHOTOREVISED 1978	Bridgeport West, TX	1" = 2000'
1960	Bridgeport West, TX	1" = 2000'



N
W E
S

Boy Scout Gun Range
Wizard Wells, TX (2013), Bridgeport West, TX (2013)

GeoSearch

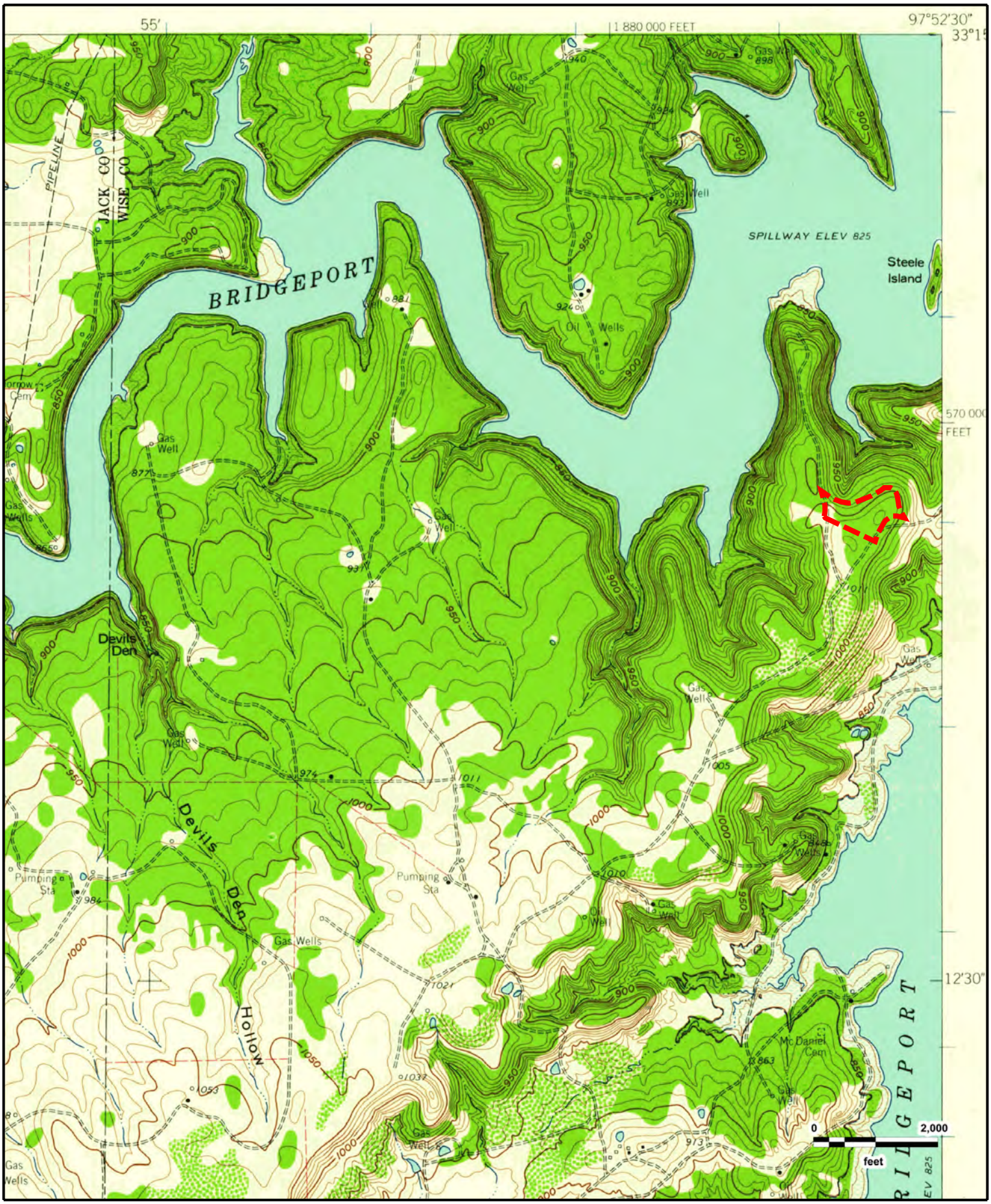
JOB #: 211741 - 11/22/2017

N
W E
S

Boy Scout Gun Range
Wizard Wells, TX (1978)

GeoSearch

JOB #: 211741 - 11/22/2017



N
W E
S

Boy Scout Gun Range
Wizard Wells, TX (1960)

GeoSearch

JOB #: 211741 - 11/22/2017

N
W E
S

Boy Scout Gun Range
Bridgeport West, TX (1978)

GeoSearch

JOB #: 211741 - 11/22/2017

N
W E
S

Boy Scout Gun Range
Bridgeport West, TX (1960)

GeoSearch

JOB #: 211741 - 11/22/2017

GeoSearch
On time. On target. In touch.™

Historical Aerial Photographs (Texas)

Target Property:

Boy Scout Gun Range
Private Road 1706
Chico, Wise, Texas 76426

Prepared For:

SWCA

Order #: 96301
Job #: 211740
Project #: 45618
Date: 11/22/2017

Target Property Summary

Boy Scout Gun Range
Private Road 1706
Chico, Wise, Texas 76426

USGS Quadrangle: ***WIZARD WELLS***
Target Property Geometry: ***Area***

Target Property Longitude(s)/Latitude(s):
(-97.881494164, 33.228896849), (-97.881435156, 33.228820565), (-97.878806591, 33.227783999), (-97.878667116, 33.228142984), (-97.878280878, 33.228699409), (-97.877937555, 33.228905824), (-97.877669334, 33.228905824), (-97.877261639, 33.228816078), (-97.877476215, 33.229157110), (-97.877562046, 33.229345575), (-97.877626419, 33.229704554), (-97.877690792, 33.229910967), (-97.877798080, 33.230054558), (-97.878001928, 33.230153276), (-97.878334522, 33.230153276), (-97.878516912, 33.230027634), (-97.879021168, 33.229785324), (-97.879825830, 33.229516090), (-97.880201340, 33.229471218), (-97.880587578, 33.229525065), (-97.880941629, 33.229632759), (-97.881188393, 33.229740452), (-97.881488800, 33.229919941), (-97.881649733, 33.230009685), (-97.881456614, 33.229381473), (-97.881445885, 33.229139161)

Aerial Research Summary

Date	Source	Scale	Frame
2016	USDA	1" = 500'	N/A
2014	USDA	1" = 500'	N/A
2012	USDA	1" = 500'	N/A
2010	USDA	1" = 500'	N/A
2008	USDA	1" = 500'	N/A
2006	USDA	1" = 500'	N/A
2005	USDA	1" = 500'	N/A
2004	USDA	1" = 500'	N/A
02/02/1995	USGS	1" = 500'	N/A
09/18/1981	USGS	1" = 500'	149-48
03/02/1979	ASCS	1" = 700'	PI-3
01/12/1967	ASCS	1" = 500'	1-212
03/01/1959	ASCS	1" = 500'	1-161
01/02/1953	AMS	1" = 500'	1155
01/04/1948	ASCS	1" = 500'	2-18

N
W E
S

Boy Scout Gun Range
USDA
2016

GeoSearch

JOB #: 211740 - 11/22/2017

N
W E
S

Boy Scout Gun Range
USDA
2014

GeoSearch

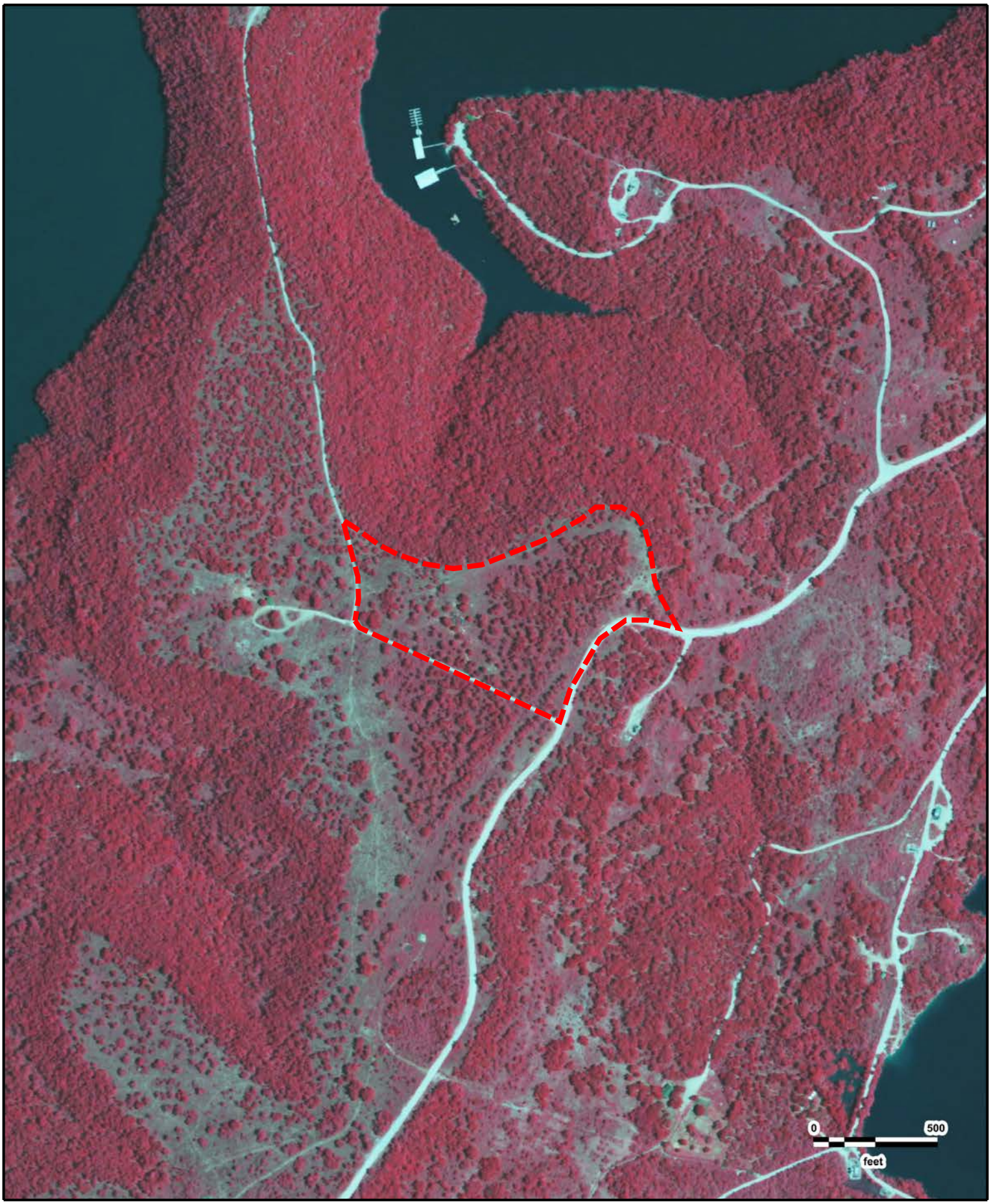
JOB #: 211740 - 11/22/2017

N
W E
S

Boy Scout Gun Range
USDA
2012

GeoSearch

JOB #: 211740 - 11/22/2017



N
W E
S

Boy Scout Gun Range
USDA
2010

GeoSearch

JOB #: 211740 - 11/22/2017

N
W E
S

Boy Scout Gun Range
USDA
2008

GeoSearch

JOB #: 211740 - 11/22/2017

N
W E
S

Boy Scout Gun Range
USDA
2006

GeoSearch

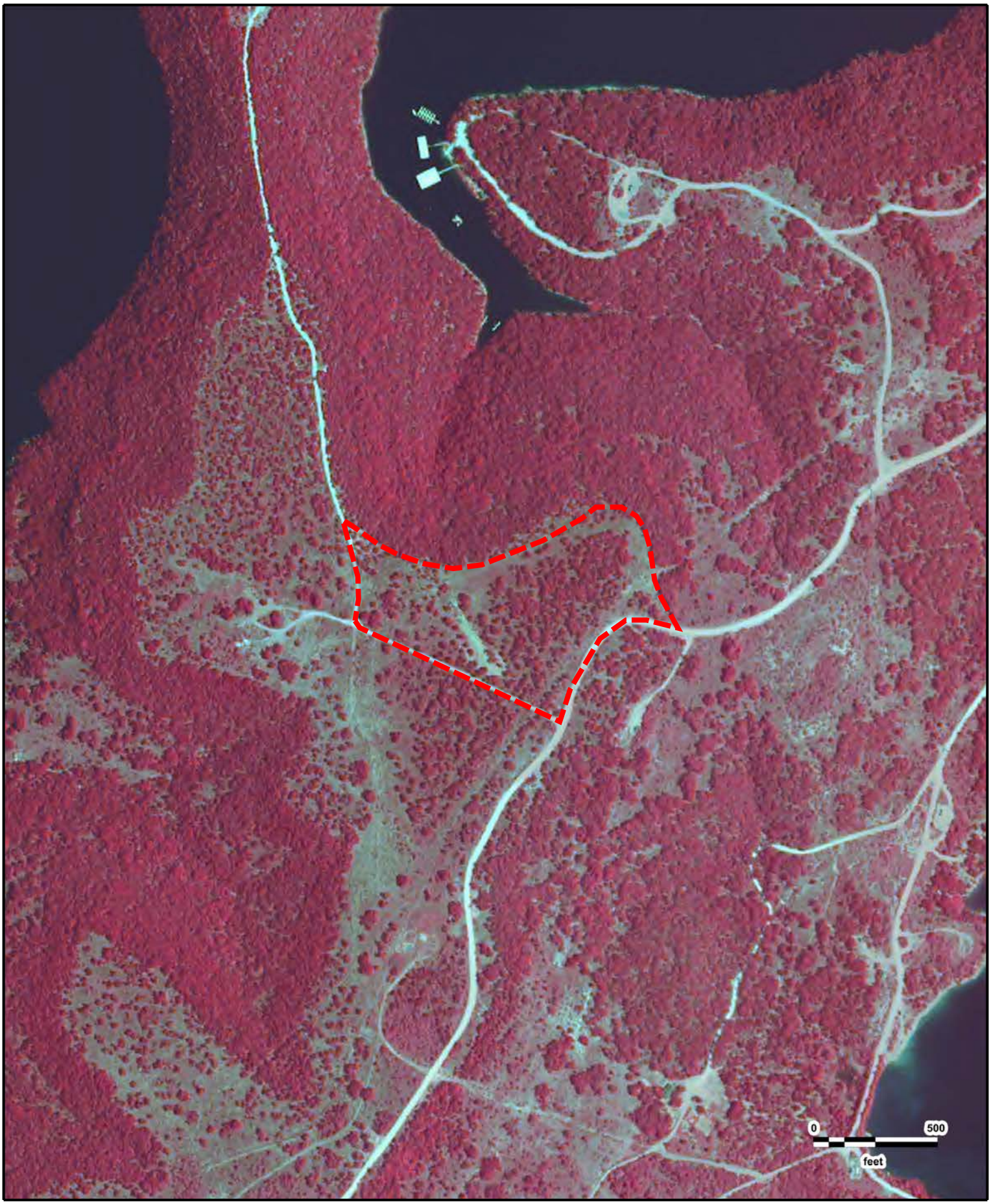
JOB #: 211740 - 11/22/2017

N
W E
S

Boy Scout Gun Range
USDA
2005

GeoSearch

JOB #: 211740 - 11/22/2017



N
W E
S

Boy Scout Gun Range
USDA
2004

GeoSearch

JOB #: 211740 - 11/22/2017

N
W E
S

Boy Scout Gun Range
USGS
02/02/1995

GeoSearch

JOB #: 211740 - 11/22/2017

N
W E
S

Boy Scout Gun Range
USGS
09/18/1981

GeoSearch

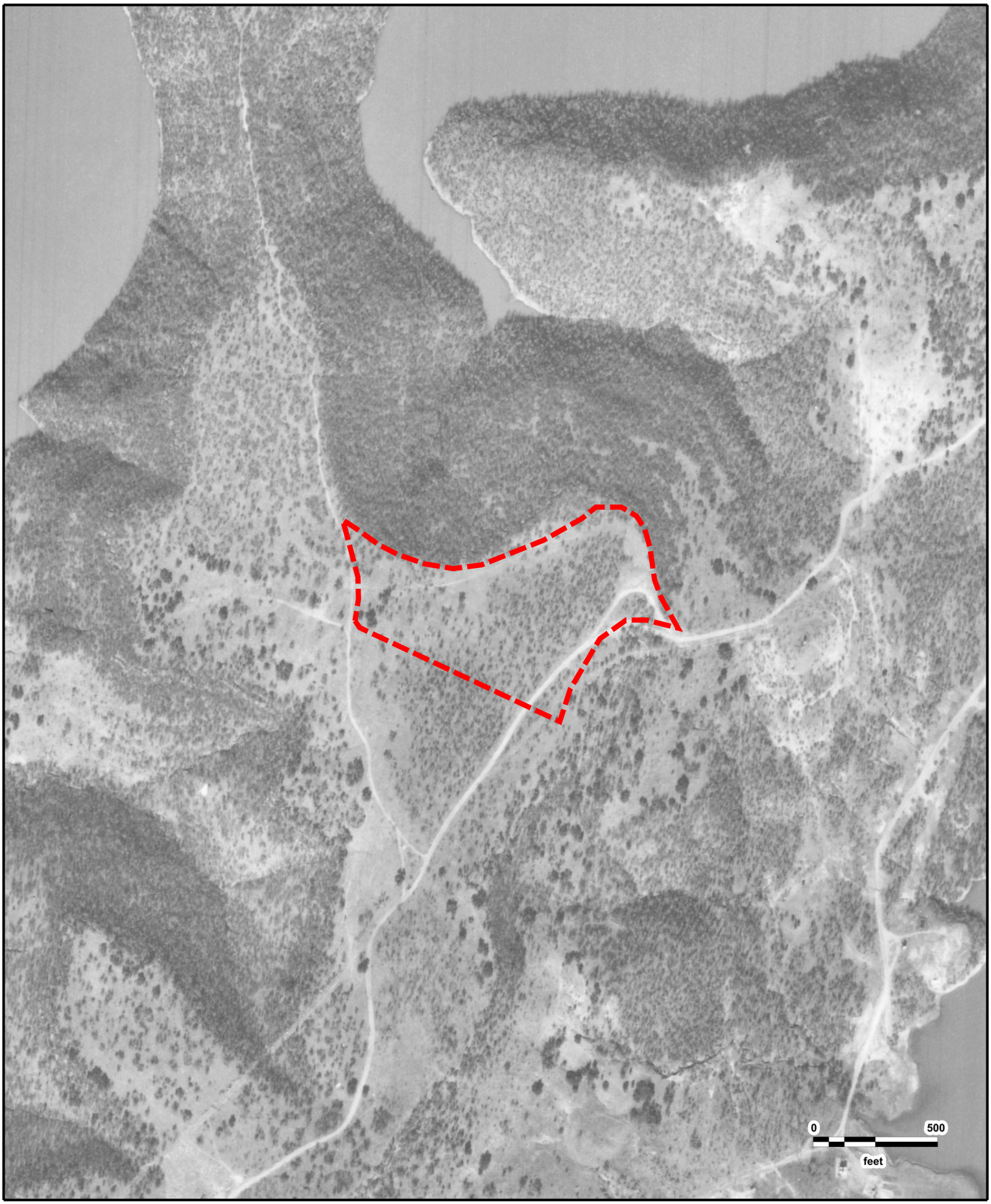
JOB #: 211740 - 11/22/2017

N
W E
S

Boy Scout Gun Range
ASCS
03/02/1979

GeoSearch

JOB #: 211740 - 11/22/2017



N
W E
S

Boy Scout Gun Range
ASCS
01/12/1967

GeoSearch

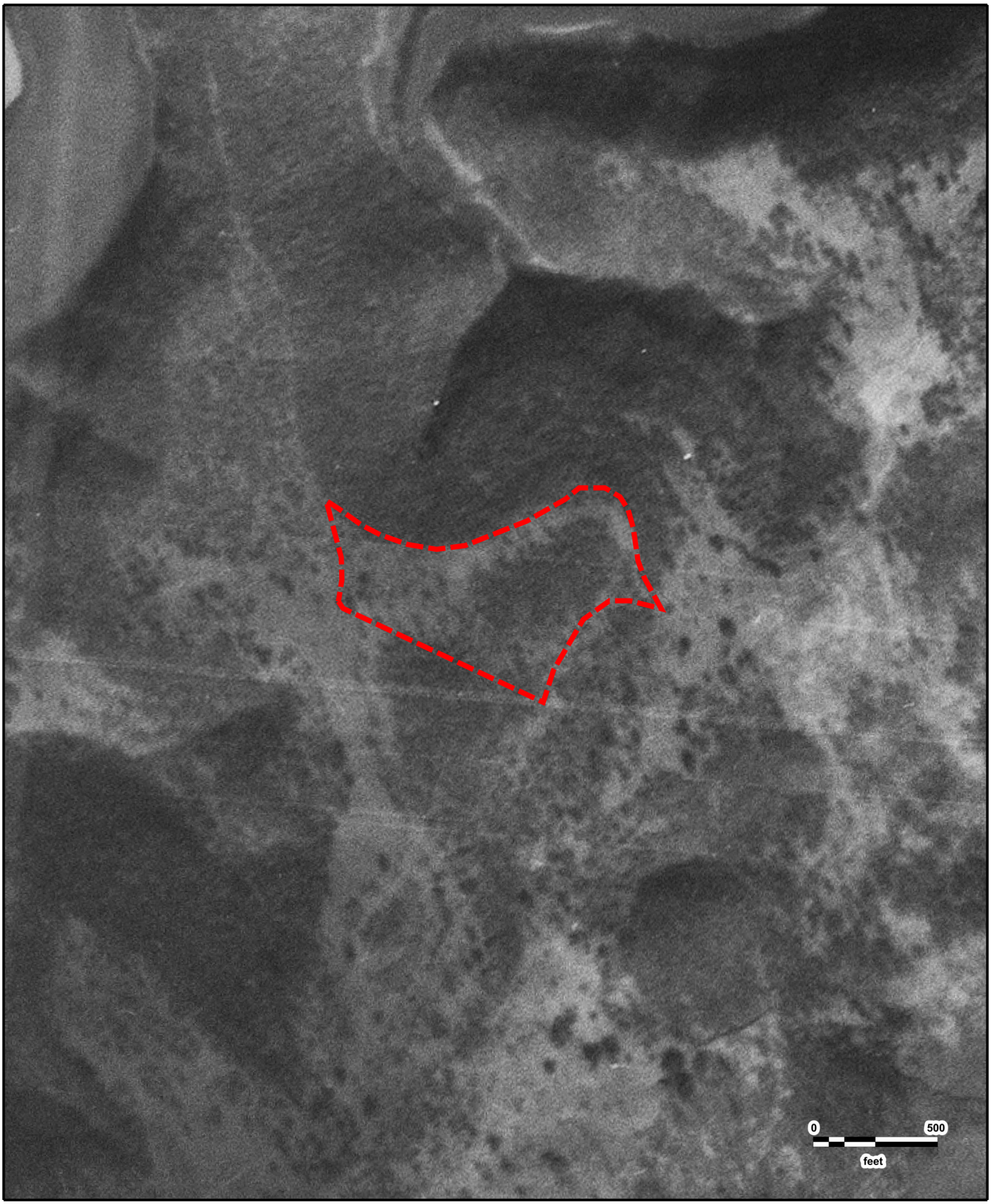
JOB #: 211740 - 11/22/2017

N
W E
S

Boy Scout Gun Range
ASCS
03/01/1959

GeoSearch

JOB #: 211740 - 11/22/2017

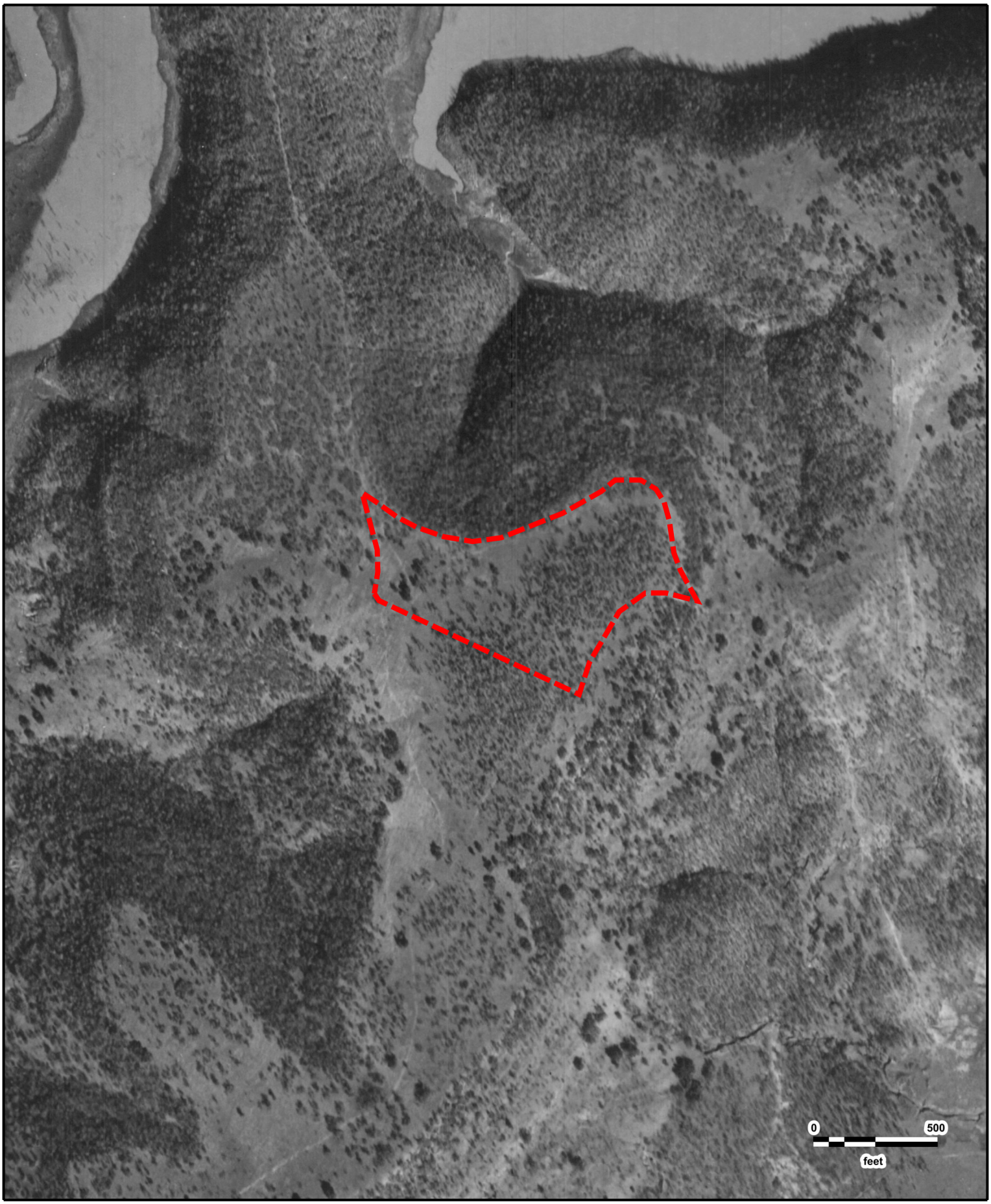


N
W E
S

Boy Scout Gun Range
AMS
01/02/1953

GeoSearch

JOB #: 211740 - 11/22/2017



N
W E
S

Boy Scout Gun Range
ASCS
01/04/1948

GeoSearch

JOB #: 211740 - 11/22/2017

GeoSearch
On time. On target. In touch.™

Radius Report

Satellite view

Target Property:

Boy Scout Gun Range
Private Road 1706
Chico, Wise County, Texas 76426

Prepared For:

SWCA

Order #: 96301
Job #: 211739
Project #: 45618
Date: 11/22/2017

Table of Contents

Disclaimer

This report was designed by GeoSearch to meet or exceed the records search requirements of the All Appropriate Inquiries Rule (40 CFR §312.26) and the current version of the ASTM International E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or, if applicable, the custom requirements requested by the entity that ordered this report. The records and databases of records used to compile this report were collected from various federal,state and local governmental entities. It is the goal of GeoSearch to meet or exceed the 40 CFR §312.26 and E1527 requirements for updating records by using the best available technology. GeoSearch contacts the appropriate governmental entities on a recurring basis. Depending on the frequency with which a record source or database of records is updated by the governmental entity, the data used to prepare this report may be updated monthly, quarterly, semi-annually, or annually.

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Target Property Summary

Target Property Information

Boy Scout Gun Range
Private Road 1706
Chico, Texas 76426

Coordinates
Area centroid (-97.879390, 33.2290642)
1,009 feet above sea level

USGS Quadrangle
Wizard Wells, TX

Geographic Coverage Information

County/Parish: Wise (TX)
ZipCode(s):
Bridgeport TX: 76426
Chico TX: 76431

Radon
* Target property is located in Radon Zone 3.
Zone 3 areas have a predicted average indoor radon screening level less than 2 pCi/L (picocuries per liter).

Database Summary

FEDERAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
EMERGENCY RESPONSE NOTIFICATION SYSTEM	ERNSTX	0	0	TP/AP
FEDERAL ENGINEERING INSTITUTIONAL CONTROL SITES	EC	0	0	TP/AP
LAND USE CONTROL INFORMATION SYSTEM	LUCIS	0	0	TP/AP
RCRA SITES WITH CONTROLS	RCRASC	0	0	TP/AP
RESOURCE CONSERVATION & RECOVERY ACT - GENERATOR	RCRAGR06	0	0	0.1250
RESOURCE CONSERVATION & RECOVERY ACT - NON-GENERATOR	RCRANGR06	0	0	0.1250
FEMA OWNED STORAGE TANKS	FEMAUST	0	0	0.2500
BROWNFIELDS MANAGEMENT SYSTEM	BF	0	0	0.5000
DELISTED NATIONAL PRIORITIES LIST	DNPL	0	0	0.5000
NO LONGER REGULATED RCRA NON-CORRACTS TSD FACILITIES	NLRRCRAT	0	0	0.5000
RESOURCE CONSERVATION & RECOVERY ACT - NON-CORRACTS TREATMENT, STORAGE & DISPOSAL FACILITIES	RCRAT	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM	SEMS	0	0	0.5000
SUPERFUND ENTERPRISE MANAGEMENT SYSTEM ARCHIVED SITE INVENTORY	SEMSARCH	0	0	0.5000
NATIONAL PRIORITIES LIST	NPL	0	0	1.0000
NO LONGER REGULATED RCRA CORRECTIVE ACTION FACILITIES	NLRRCRAC	0	0	1.0000
PROPOSED NATIONAL PRIORITIES LIST	PNPL	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - CORRECTIVE ACTION FACILITIES	RCRAC	0	0	1.0000
RESOURCE CONSERVATION & RECOVERY ACT - SUBJECT TO CORRECTIVE ACTION FACILITIES	RCRASUBC	0	0	1.0000

SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
AEROMETRIC INFORMATION RETRIEVAL SYSTEM / AIR FACILITY SUBSYSTEM	AIRSAFS	0	0	TP/AP
BIENNIAL REPORTING SYSTEM	BRS	0	0	TP/AP
CERCLIS LIENS	SFLIENS	0	0	TP/AP
CLANDESTINE DRUG LABORATORY LOCATIONS	CDL	0	0	TP/AP
EPA DOCKET DATA	DOCKETS	0	0	TP/AP
ENFORCEMENT AND COMPLIANCE HISTORY INFORMATION	ECHOR06	0	0	TP/AP

Database Summary

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
FACILITY REGISTRY SYSTEM	FRSTX	0	0	TP/AP
HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM	HMIRSR06	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM (FORMERLY DOCKETS)	ICIS	0	0	TP/AP
INTEGRATED COMPLIANCE INFORMATION SYSTEM NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	ICISNPDES	0	0	TP/AP
MATERIAL LICENSING TRACKING SYSTEM	MLTS	0	0	TP/AP
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	NPDESR06	0	0	TP/AP
PCB ACTIVITY DATABASE SYSTEM	PADS	0	0	TP/AP
PERMIT COMPLIANCE SYSTEM	PCSR06	0	0	TP/AP
SEMS LIEN ON PROPERTY	SEMSLIENS	0	0	TP/AP
SECTION SEVEN TRACKING SYSTEM	SSTS	0	0	TP/AP
TOXIC SUBSTANCE CONTROL ACT INVENTORY	TSCA	0	0	TP/AP
TOXICS RELEASE INVENTORY	TRI	0	0	TP/AP
ALTERNATIVE FUELING STATIONS	ALTFUELS	0	0	0.2500
HISTORICAL GAS STATIONS	HISTPST	0	0	0.2500
INTEGRATED COMPLIANCE INFORMATION SYSTEM DRYCLEANERS	ICISCLEANERS	0	0	0.2500
MINE SAFETY AND HEALTH ADMINISTRATION MASTER INDEX FILE	MSHA	0	0	0.2500
MINERAL RESOURCE DATA SYSTEM	MRDS	0	0	0.2500
OPEN DUMP INVENTORY	ODI	0	0	0.5000
SURFACE MINING CONTROL AND RECLAMATION ACT SITES	SMCRA	0	0	0.5000
URANIUM MILL TAILINGS RADIATION CONTROL ACT SITES	USUMTRCA	0	0	0.5000
DEPARTMENT OF DEFENSE SITES	DOD	0	0	1.0000
FORMER MILITARY NIKE MISSILE SITES	NMS	0	0	1.0000
FORMERLY USED DEFENSE SITES	FUDS	0	0	1.0000
FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM	FUSRAP	0	0	1.0000
RECORD OF DECISION SYSTEM	RODS	0	0	1.0000

SUB-TOTAL		0	0	

Database Summary

STATE (TX) LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
STATE INSTITUTIONAL/ENGINEERING CONTROL SITES	SIEC01	0	0	TP/AP
DRY CLEANER REGISTRATION DATABASE	DCR	0	0	0.2500
PETROLEUM STORAGE TANKS	PST	0	0	0.2500
BROWNFIELDS SITE ASSESSMENTS	BSA	0	0	0.5000
CLOSED & ABANDONED LANDFILL INVENTORY	CALF	0	0	0.5000
LEAKING PETROLEUM STORAGE TANKS	LPST	0	0	0.5000
MUNICIPAL SOLID WASTE LANDFILL SITES	MSWLF	0	0	0.5000
RADIOACTIVE WASTE SITES	RWS	0	0	0.5000
RAILROAD COMMISSION VCP AND BROWNFIELD SITES	RRCVCP	0	0	0.5000
VOLUNTARY CLEANUP PROGRAM SITES	VCP	0	0	0.5000
INDUSTRIAL AND HAZARDOUS WASTE CORRECTIVE ACTION SITES	IHWCA	0	0	1.0000
STATE SUPERFUND SITES	SF	0	0	1.0000

SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
GROUNDWATER CONTAMINATION CASES	GWCC	0	0	TP/AP
HISTORIC GROUNDWATER CONTAMINATION CASES	HISTGWCC	0	0	TP/AP
MUNICIPAL SETTING DESIGNATIONS	MSD	0	0	TP/AP
NOTICE OF VIOLATIONS	NOV	0	0	TP/AP
SPILLS LISTING	SPILLS	0	0	TP/AP
TCEQ LIENS	LIENS	0	0	TP/AP
TIER I I CHEMICAL REPORTING PROGRAM FACILITIES	TIERII	0	0	TP/AP
INDUSTRIAL AND HAZARDOUS WASTE SITES	IHW	0	0	0.2500
PERMITTED INDUSTRIAL HAZARDOUS WASTE SITES	PIHW	0	0	0.2500
AFFECTED PROPERTY ASSESSMENT REPORTS	APAR	0	0	0.5000
DRY CLEANER REMEDIATION PROGRAM SITES	DCRPS	0	0	0.5000
INNOCENT OWNER / OPERATOR DATABASE	IOP	0	0	0.5000
RECYCLING FACILITIES	WMRF	0	0	0.5000
SALT CAVERNS FOR PETROLEUM STORAGE	STCV	0	0	0.5000

SUB-TOTAL		0	0	

Database Summary

TRIBAL LISTING

Standard Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	USTR06	0	0	0.2500
LEAKING UNDERGROUND STORAGE TANKS ON TRIBAL LANDS	LUSTR06	0	0	0.5000
OPEN DUMP INVENTORY ON TRIBAL LANDS	ODINDIAN	0	0	0.5000
SUB-TOTAL		0	0	

Additional Environmental Records

Database	Acronym	Locatable	Unlocatable	Search Radius (miles)
INDIAN RESERVATIONS	INDIANRES	0	0	1.0000
SUB-TOTAL		0	0	
TOTAL		0	0	

Database Radius Summary

FEDERAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
AIRSAFS	0.0200	0	NS	NS	NS	NS	NS	0
BRS	0.0200	0	NS	NS	NS	NS	NS	0
CDL	0.0200	0	NS	NS	NS	NS	NS	0
DOCKETS	0.0200	0	NS	NS	NS	NS	NS	0
EC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
ECHOR06	0.0200	0	NS	NS	NS	NS	NS	0
ERNSTX	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
FRSTX	0.0200	0	NS	NS	NS	NS	NS	0
HMIRSR06	0.0200	0	NS	NS	NS	NS	NS	0
ICIS	0.0200	0	NS	NS	NS	NS	NS	0
ICISNPDES	0.0200	0	NS	NS	NS	NS	NS	0
LUCIS	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
MLTS	0.0200	0	NS	NS	NS	NS	NS	0
NPDESR06	0.0200	0	NS	NS	NS	NS	NS	0
PADS	0.0200	0	NS	NS	NS	NS	NS	0
PCSR06	0.0200	0	NS	NS	NS	NS	NS	0
RCRASC	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
SEMSLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SFLIENS	0.0200	0	NS	NS	NS	NS	NS	0
SSTS	0.0200	0	NS	NS	NS	NS	NS	0
TRI	0.0200	0	NS	NS	NS	NS	NS	0
TSCA	0.0200	0	NS	NS	NS	NS	NS	0
RCRAGR06	**0.1250**	**0**	**0**	**NS**	**NS**	**NS**	**NS**	**0**
RCRANGR06	**0.1250**	**0**	**0**	**NS**	**NS**	**NS**	**NS**	**0**
ALTFUELS	0.2500	0	0	0	NS	NS	NS	0
FEMAUST	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
HISTPST	0.2500	0	0	0	NS	NS	NS	0
ICISCLEANERS	0.2500	0	0	0	NS	NS	NS	0
MRDS	0.2500	0	0	0	NS	NS	NS	0
MSHA	0.2500	0	0	0	NS	NS	NS	0
BF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
DNPL	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
NLRRCRAT	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
ODI	0.5000	0	0	0	0	NS	NS	0
RCRAT	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**

Database Radius Summary

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
SEMS	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SEMSARCH	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
SMCRA	0.5000	0	0	0	0	NS	NS	0
USUMTRCA	0.5000	0	0	0	0	NS	NS	0
DOD	1.0000	0	0	0	0	0	NS	0
FUDS	1.0000	0	0	0	0	0	NS	0
FUSRAP	1.0000	0	0	0	0	0	NS	0
NLRRCRAC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
NMS	1.0000	0	0	0	0	0	NS	0
NPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
PNPL	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRAC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RCRASUBC	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
RODS	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0

Database Radius Summary

STATE (TX) LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
GWCC	0.0200	0	NS	NS	NS	NS	NS	0
HISTGWCC	0.0200	0	NS	NS	NS	NS	NS	0
LIENS	0.0200	0	NS	NS	NS	NS	NS	0
MSD	0.0200	0	NS	NS	NS	NS	NS	0
NOV	0.0200	0	NS	NS	NS	NS	NS	0
SIEC01	**0.0200**	**0**	**NS**	**NS**	**NS**	**NS**	**NS**	**0**
SPILLS	0.0200	0	NS	NS	NS	NS	NS	0
TIERII	0.0200	0	NS	NS	NS	NS	NS	0
DCR	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
IHW	0.2500	0	0	0	NS	NS	NS	0
PIHW	0.2500	0	0	0	NS	NS	NS	0
PST	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
APAR	0.5000	0	0	0	0	NS	NS	0
BSA	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
CALF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
DCRPS	0.5000	0	0	0	0	NS	NS	0
IOP	0.5000	0	0	0	0	NS	NS	0
LPST	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
MSWLF	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
RRCVCP	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
RWS	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
STCV	0.5000	0	0	0	0	NS	NS	0
VCP	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
WMRF	0.5000	0	0	0	0	NS	NS	0
IHWCA	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**
SF	**1.0000**	**0**	**0**	**0**	**0**	**0**	**NS**	**0**

SUB-TOTAL		0	0	0	0	0	0	0

Database Radius Summary

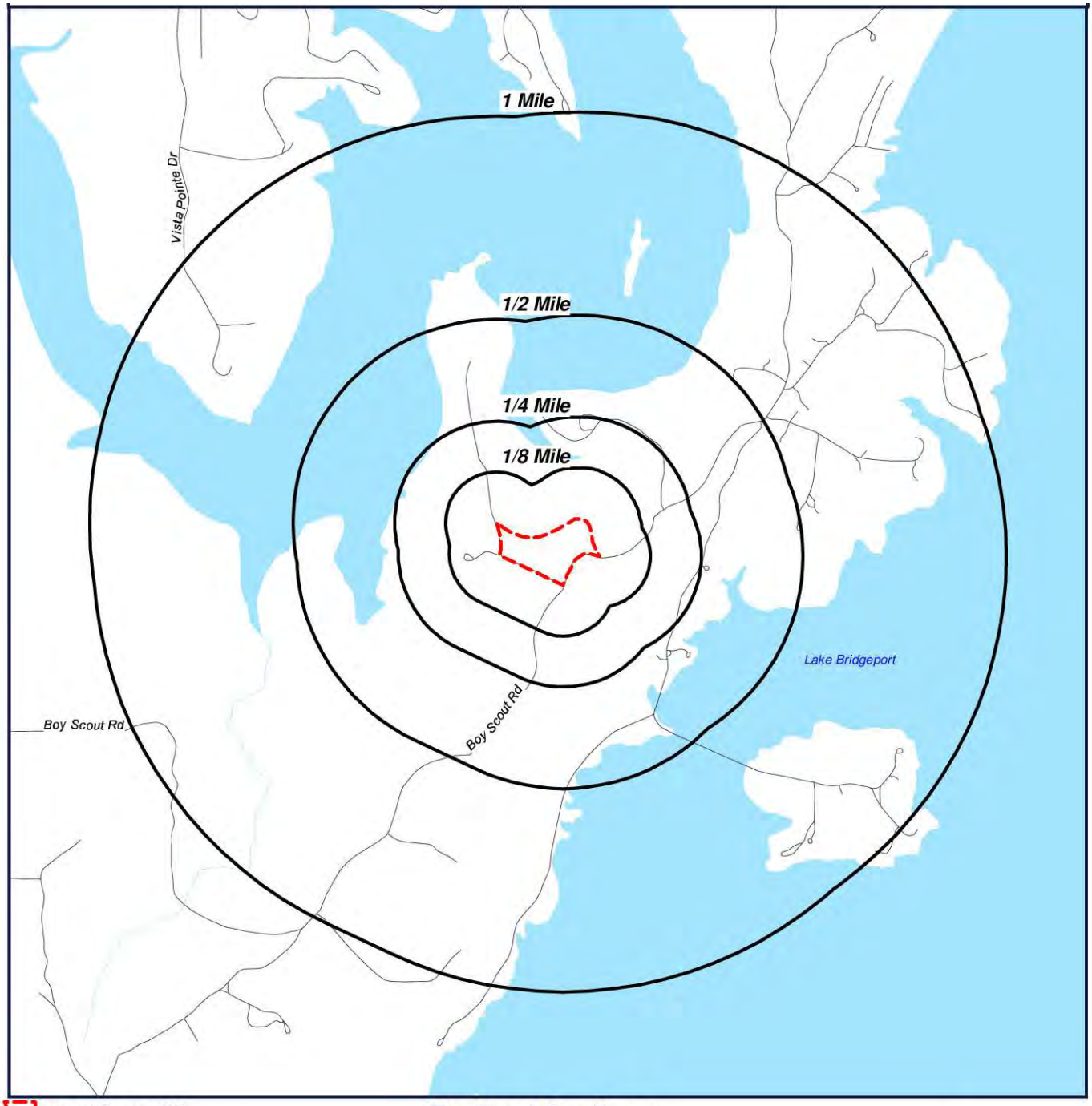
TRIBAL LISTING

*Standard environmental records are displayed in **bold**.*

Acronym	Search Radius (miles)	TP/AP (0 - 0.02)	1/8 Mile (> TP/AP)	1/4 Mile (> 1/8)	1/2 Mile (> 1/4)	1 Mile (> 1/2)	> 1 Mile	Total
USTR06	**0.2500**	**0**	**0**	**0**	**NS**	**NS**	**NS**	**0**
LUSTR06	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
ODINDIAN	**0.5000**	**0**	**0**	**0**	**0**	**NS**	**NS**	**0**
INDIANRES	1.0000	0	0	0	0	0	NS	0
SUB-TOTAL		0	0	0	0	0	0	0
TOTAL		0	0	0	0	0	0	0

NOTES:
NS = NOT SEARCHED
TP/AP = TARGET PROPERTY/ADJACENT PROPERTY

Radius Map 1



Target Property (TP)

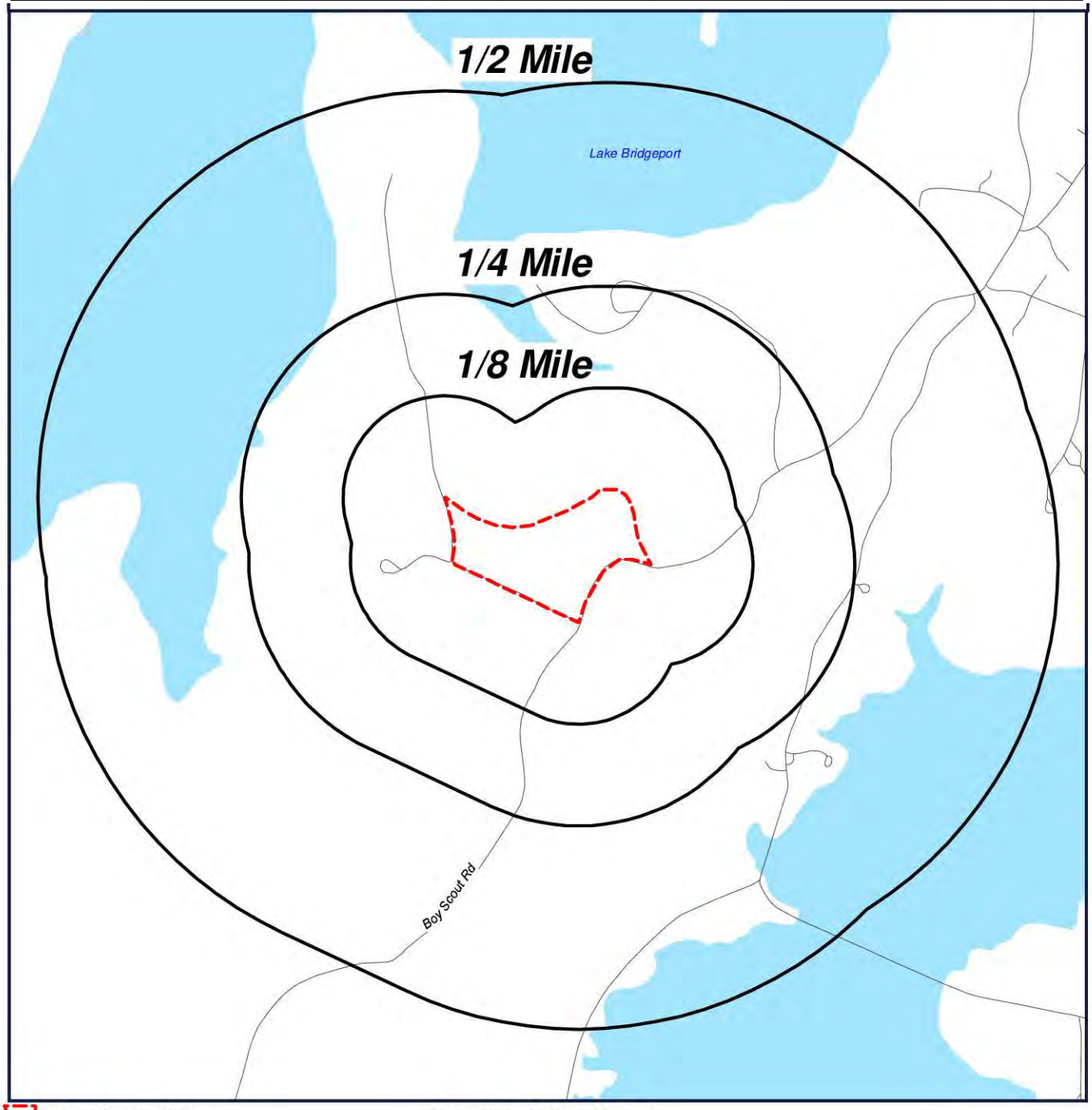
Boy Scout Gun Range
Private Road 1706
Chico, Texas
76426

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

[Click here to access Satellite view]

Radius Map 2



Target Property (TP)

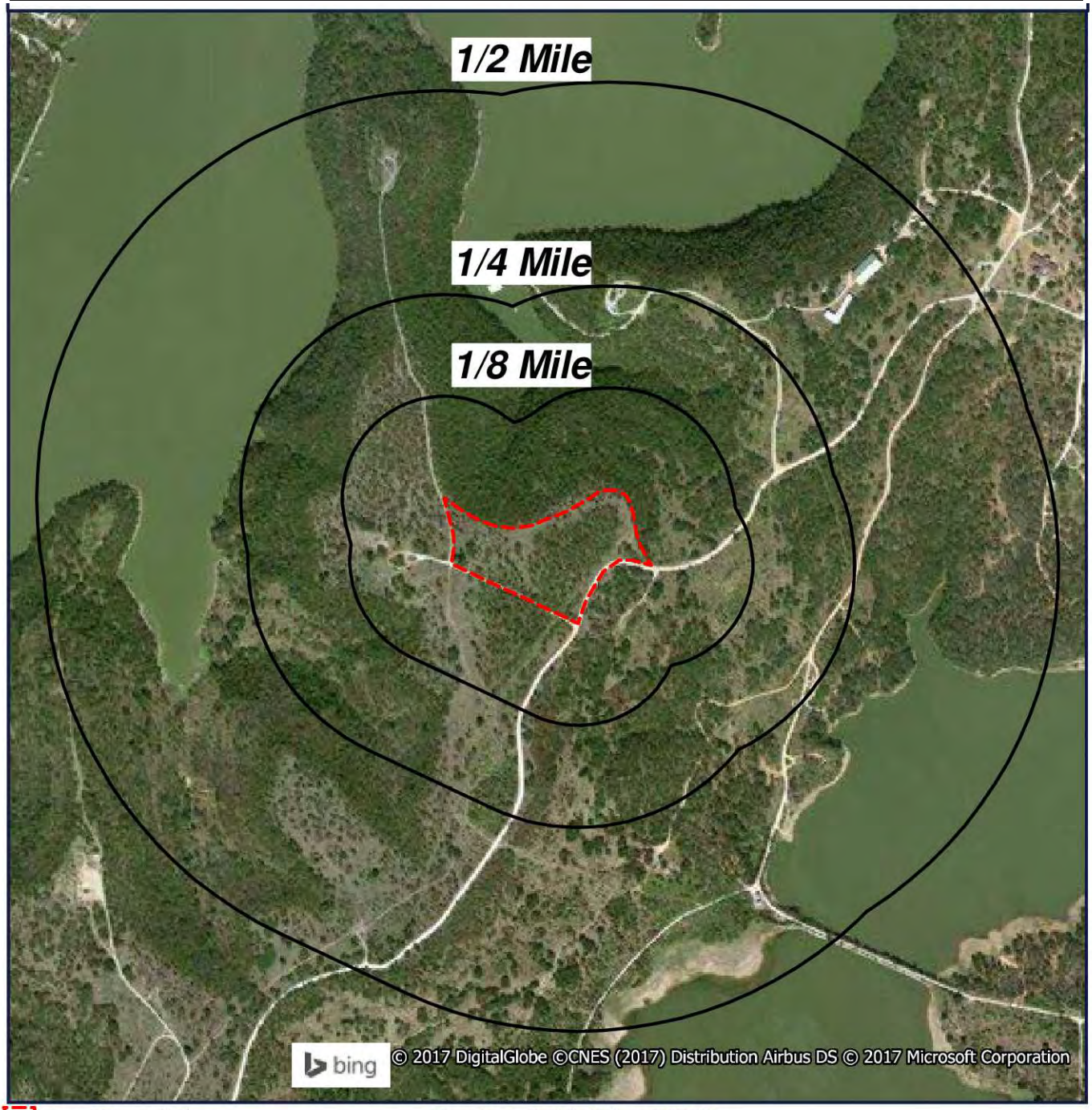
Boy Scout Gun Range
Private Road 1706
Chico, Texas
76426

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

[Click here to access Satellite view]

Ortho Map



Target Property (TP)

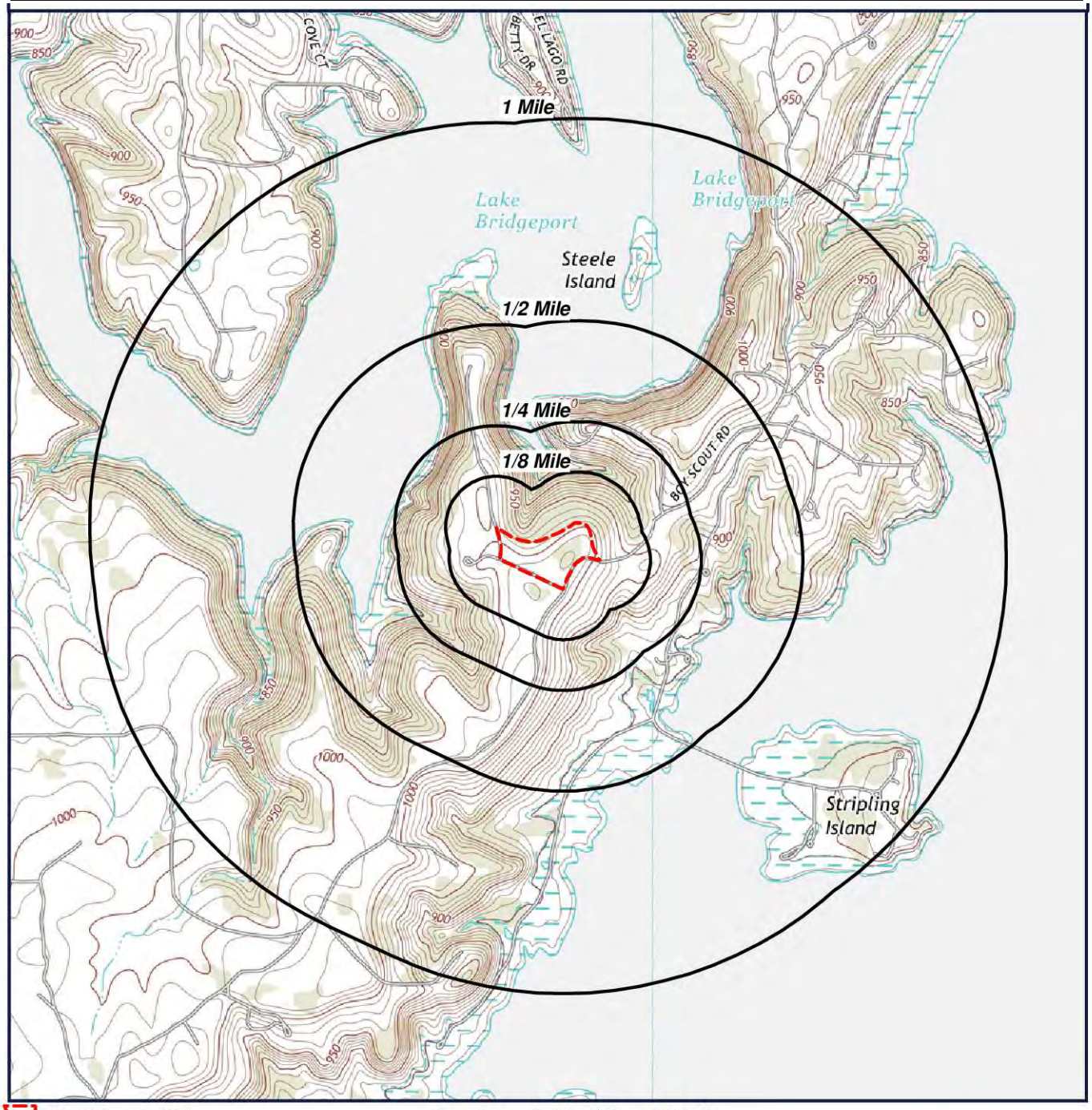
Quadrangle(s): Wizard Wells
Boy Scout Gun Range
Private Road 1706
Chico, Texas
76426

N
W E
S

0' 500' 1000' 1500'
SCALE: 1" = 1000'

[Click here to access Satellite view]

Topographic Map



Target Property (TP)

Quadrangle(s): Wizard Wells
Source: USGS, 02/14/2013
Boy Scout Gun Range
Private Road 1706
Chico, Texas
76426

N
W E
S

0' 1000' 2000' 3000'
SCALE: 1" = 2000'

[Click here to access Satellite view]

Located Sites Summary

No Records Found.

Elevation Summary

Elevations are collected from the USGS 3D Elevation Program 1/3 arc-second (approximately 10 meters) layer hosted at the NGTOC. .

Target Property Elevation: 1009 ft.

*NOTE: Standard environmental records are displayed in **bold**.*

No Records Found.

Unlocated Sites Summary

This list contains sites that could not be mapped due to limited or incomplete address information.

No Records Found

AIRSAFS Aerometric Information Retrieval System / Air Facility Subsystem

VERSION DATE: 10/20/14

The United States Environmental Protection Agency (EPA) modified the Aerometric Information Retrieval System (AIRS) to a database that exclusively tracks the compliance of stationary sources of air pollution with EPA regulations: the Air Facility Subsystem (AFS). Since this change in 2001, the management of the AIRS/AFS database was assigned to EPA's Office of Enforcement and Compliance Assurance.

BRS Biennial Reporting System

VERSION DATE: 12/31/11

The United States Environmental Protection Agency (EPA), in cooperation with the States, biennially collects information regarding the generation, management, and final disposition of hazardous wastes regulated under the Resource Conservation and Recovery Act of 1976 (RCRA), as amended. The Biennial Report captures detailed data on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities. Currently, the EPA states that data collected between 1991 and 1997 was originally a part of the defunct Biennial Reporting System and is now incorporated into the RCRAInfo data system.

CDL Clandestine Drug Laboratory Locations

VERSION DATE: 07/01/16

The U.S. Department of Justice ("the Department") provides this information as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments. The Department does not establish, implement, enforce, or certify compliance with clean-up or remediation standards for contaminated sites; the public should contact a state or local health department or environmental protection agency for that information.

DOCKETS EPA Docket Data

VERSION DATE: 12/22/05

The United States Environmental Protection Agency Docket data lists Civil Case Defendants, filing dates as far back as 1971, laws broken including section, violations that occurred, pollutants involved, penalties assessed and superfund awards by facility and location. Please refer to ICIS database as source of current data.

EC Federal Engineering Institutional Control Sites

VERSION DATE: 08/03/15

This database includes site locations where Engineering and/or Institutional Controls have been identified as part

of a selected remedy for the site as defined by United States Environmental Protection Agency official remedy decision documents. A site listing does not indicate that the institutional and engineering controls are currently in place nor will be in place once the remedy is complete; it only indicates that the decision to include either of them in the remedy is documented as of the completed date of the document. Institutional controls are actions, such as legal controls, that help minimize the potential for human exposure to contamination by ensuring appropriate land or resource use. Engineering controls include caps, barriers, or other device engineering to prevent access, exposure, or continued migration of contamination.

ECHOR06 Enforcement and Compliance History Information

VERSION DATE: 08/26/17

The EPA's Enforcement and Compliance History Online (ECHO) database, provides compliance and enforcement information for facilities nationwide. This database includes facilities regulated as Clean Air Act stationary sources, Clean Water Act direct dischargers, Resource Conservation and Recovery Act hazardous waste handlers, Safe Drinking Water Act public water systems along with other data, such as Toxics Release Inventory releases.

ERNSTX Emergency Response Notification System

VERSION DATE: 10/15/17

This National Response Center database contains data on reported releases of oil, chemical, radiological, biological, and/or etiological discharges into the environment anywhere in the United States and its territories. The data comes from spill reports made to the U.S. Environmental Protection Agency, U.S. Coast Guard, the National Response Center and/or the U.S. Department of Transportation.

FRSTX Facility Registry System

VERSION DATE: 04/04/17

The United States Environmental Protection Agency's Office of Environmental Information (OEI) developed the Facility Registry System (FRS) as the centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The Facility Registry System replaced the Facility Index System or FINDS database.

HMIRSR06 Hazardous Materials Incident Reporting System

VERSION DATE: 08/30/17

The HMIRS database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

ICIS Integrated Compliance Information System (formerly DOCKETS)

VERSION DATE: 09/23/17

ICIS is a case activity tracking and management system for civil, judicial, and administrative federal Environmental Protection Agency enforcement cases. ICIS contains information on federal administrative and federal judicial cases under the following environmental statutes: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right-to-Know Act - Section 313, the Toxic Substances Control Act, the Federal Insecticide, Fungicide, and Rodenticide Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Safe Drinking Water Act, and the Marine Protection, Research, and Sanctuaries Act.

ICISNPDES Integrated Compliance Information System National Pollutant Discharge Elimination System

VERSION DATE: 07/09/17

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

LUCIS Land Use Control Information System

VERSION DATE: 09/01/06

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

MLTS Material Licensing Tracking System

VERSION DATE: 06/29/17

MLTS is a list of approximately 8,100 sites which have or use radioactive materials subject to the United States Nuclear Regulatory Commission (NRC) licensing requirements.

NPDESR06 National Pollutant Discharge Elimination System

VERSION DATE: 04/01/07

Authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The NPDES database was collected from December 2002 until April 2007. Refer to the PCS and/or ICIS-NPDES database as source of current data. This database includes permitted facilities located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

PADS PCB Activity Database System

VERSION DATE: 07/18/17

PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

PCSR06 Permit Compliance System

VERSION DATE: 08/01/12

The Permit Compliance System is used in tracking enforcement status and permit compliance of facilities controlled by the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act and is maintained by the United States Environmental Protection Agency's Office of Compliance. PCS is designed to support the NPDES program at the state, regional, and national levels. This database includes permitted facilities located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. PCS has been modernized, and no longer exists. National Pollutant Discharge Elimination System (ICIS-NPDES) data can now be found in Integrated Compliance Information System (ICIS).

RCRASC RCRA Sites with Controls

VERSION DATE: 03/08/16

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with institutional controls in place.

SEMSLIENS SEMS Lien on Property

VERSION DATE: 07/11/17

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs. This is a listing of SEMS sites with a lien on the property.

SFLIENS CERCLIS Liens

VERSION DATE: 06/08/12

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which United States Environmental Protection Agency has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties. This database contains those CERCLIS sites where the Lien on Property action is complete.

SSTS Section Seven Tracking System

VERSION DATE: 12/08/14

The United States Environmental Protection Agency tracks information on pesticide establishments through the Section Seven Tracking System (SSTS). SSTS records the registration of new establishments and records pesticide production at each establishment. The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requires that production of pesticides or devices be conducted in a registered pesticide-producing or device-producing establishment. ("Production" includes formulation, packaging, repackaging, and relabeling.)

TRI Toxics Release Inventory

VERSION DATE: 12/31/15

The Toxics Release Inventory, provided by the United States Environmental Protection Agency, includes data on toxic chemical releases and waste management activities from certain industries as well as federal and tribal facilities. This inventory contains information about the types and amounts of toxic chemicals that are released each year to the air, water, and land as well as information on the quantities of toxic chemicals sent to other facilities for further waste management.

TSCA Toxic Substance Control Act Inventory

VERSION DATE: 12/31/12

The Toxic Substances Control Act (TSCA) was enacted in 1976 to ensure that chemicals manufactured, imported, processed, or distributed in commerce, or used or disposed of in the United States do not pose any unreasonable risks to human health or the environment. TSCA section 8(b) provides the United States Environmental Protection Agency authority to "compile, keep current, and publish a list of each chemical substance that is manufactured or processed in the United States." This TSCA Chemical Substance Inventory contains non-confidential information on the production amount of toxic chemicals from each manufacturer and importer site.

RCRAGR06 Resource Conservation & Recovery Act - Generator

VERSION DATE: 10/17/17

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities currently generating hazardous waste. EPA region 6 includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

RCRANGR06 Resource Conservation & Recovery Act - Non-Generator

VERSION DATE: 10/17/17

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities classified as non-generators. Non-Generators do not presently generate hazardous waste. EPA Region 6 includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

ALTFUELS Alternative Fueling Stations

VERSION DATE: 05/16/17

Nationwide list of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE).

FEMAUST FEMA Owned Storage Tanks

VERSION DATE: 12/01/16

This is a listing of FEMA owned underground and aboveground storage tank sites. For security reasons, address information is not released to the public according to the U.S. Department of Homeland Security.

HISTPST Historical Gas Stations

VERSION DATE: NR

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

ICISCLEANERS Integrated Compliance Information System Drycleaners

VERSION DATE: 09/23/17

This is a listing of drycleaner facilities from the Integrated Compliance Information System (ICIS). The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

MRDS Mineral Resource Data System

VERSION DATE: 03/15/16

MRDS (Mineral Resource Data System) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS.

MSHA Mine Safety and Health Administration Master Index File

VERSION DATE: 09/01/17

The Mine dataset lists all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970. It includes such information as the current status of each mine (Active, Abandoned, NonProducing, etc.), the current owner and operating company, commodity codes and physical attributes of the mine. Mine ID is the unique key for this data. This information is provided by the United States Department of Labor - Mine Safety and Health Administration (MSHA).

BF Brownfields Management System

VERSION DATE: 08/17/17

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. The United States Environmental Protection Agency maintains this database to track activities in the various brown field grant programs including grantee assessment, site cleanup and site redevelopment. This database included tribal brownfield sites.

DNPL Delisted National Priorities List

VERSION DATE: 10/10/17

This database includes sites from the United States Environmental Protection Agency's Final National Priorities List (NPL) where remedies have proven to be satisfactory or sites where the original analyses were inaccurate, and the site is no longer appropriate for inclusion on the NPL, and final publication in the Federal Register has occurred.

NLRRCRAT No Longer Regulated RCRA Non-CORRACTS TSD Facilities

VERSION DATE: 10/17/17

This database includes RCRA Non-Corrective Action TSD facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements. This listing includes facilities that formerly treated, stored or disposed of hazardous waste.

ODI Open Dump Inventory

VERSION DATE: 06/01/85

The open dump inventory was published by the United States Environmental Protection Agency. An “open dump” is defined as a facility or site where solid waste is disposed of which is not a sanitary landfill which meets the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944) and which is not a facility for disposal of hazardous waste. This inventory has not been updated since June 1985.

RCRAT Resource Conservation & Recovery Act - Non-CORRACTS Treatment, Storage & Disposal Facilities

VERSION DATE: 10/17/17

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities recognized as hazardous waste treatment, storage, and disposal sites (TSD).

SEMS Superfund Enterprise Management System

VERSION DATE: 10/10/17

The U.S. Environmental Protections Agency's (EPA) Office of Solid Waste and Emergency Response, Office of Superfund Remediation and Technology Innovation (OSRTI), has implemented The Superfund Enterprise Management System (SEMS), formerly known as CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) to track and report on clean-up and enforcement activities taking place at Superfund sites. SEMS represents a joint development and ongoing collaboration between Superfund's Remedial, Removal, Federal Facilities, Enforcement and Emergency Response programs.

SEMSARCH Superfund Enterprise Management System Archived Site Inventory

VERSION DATE: 10/10/17

The Superfund Enterprise Management System Archive listing (SEMS-ARCHIVE) has replaced the CERCLIS NFRAP reporting system in 2015. This listing reflect sites that have been assessed and no further remediation is planned and is of no further interest under the Superfund program.

SMCRA Surface Mining Control and Reclamation Act Sites

VERSION DATE: 08/25/17

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

USUMTRCA Uranium Mill Tailings Radiation Control Act Sites

VERSION DATE: 03/04/17

The Legacy Management Office of the Department of Energy (DOE) manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The L.M. Office manages this database of sites registered under the Uranium Mill Tailings Control Act (UMTRCA).

DOD Department of Defense Sites

VERSION DATE: 06/21/10

This information originates from the National Atlas of the United States Federal Lands data, which includes lands owned or administered by the Federal government. Army DOD, Army Corps of Engineers DOD, Air Force DOD, Navy DOD and Marine DOD areas of 640 acres or more are included.

FUDS Formerly Used Defense Sites

VERSION DATE: 06/01/15

The Formerly Used Defense Sites (FUDS) inventory includes properties previously owned by or leased to the United States and under Secretary of Defense Jurisdiction, as well as Munitions Response Areas (MRAs). The remediation of these properties is the responsibility of the Department of Defense. This data is provided by the U.S. Army Corps of Engineers (USACE), the boundaries/polygon data are based on preliminary findings and not all properties currently have polygon data available. DISCLAIMER: This data represents the results of data collection/processing for a specific USACE activity and is in no way to be considered comprehensive or to be used in any legal or official capacity as presented on this site. While the USACE has made a reasonable effort to insure the accuracy of the maps and associated data, it should be explicitly noted that USACE makes no warranty, representation or guaranty, either expressed or implied, as to the content, sequence, accuracy, timeliness or completeness of any of the data provided herein. For additional information on Formerly Used Defense Sites please contact the USACE Public Affairs Office at (202) 528-4285.

FUSRAP Formerly Utilized Sites Remedial Action Program

VERSION DATE: 03/04/17

The U.S. DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

NLRRCRAC No Longer Regulated RCRA Corrective Action Facilities

VERSION DATE: 10/17/17

This database includes RCRA Corrective Action facilities that are no longer regulated by the United States Environmental Protection Agency or do not meet other RCRA reporting requirements.

NMS Former Military Nike Missile Sites

VERSION DATE: 12/01/84

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites.
During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

NPL National Priorities List

VERSION DATE: 10/10/17

This database includes United States Environmental Protection Agency (EPA) National Priorities List sites that fall under the EPA's Superfund program, established to fund the cleanup of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action.

PNPL Proposed National Priorities List

VERSION DATE: 10/10/17

This database contains sites proposed to be included on the National Priorities List (NPL) in the Federal Register. The United States Environmental Protection Agency investigates these sites to determine if they may present long-term threats to public health or the environment.

RCRAC Resource Conservation & Recovery Act - Corrective Action Facilities

VERSION DATE: 10/17/17

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities with corrective action activity.

RCRASUBC Resource Conservation & Recovery Act - Subject to Corrective Action Facilities

VERSION DATE: 10/17/17

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. This listing refers to facilities subject to corrective actions.

RODS Record of Decision System

VERSION DATE: 01/23/12

These decision documents maintained by the United States Environmental Protection Agency describe the chosen remedy for NPL (Superfund) site remediation. They also include site history, site description, site characteristics, community participation, enforcement activities, past and present activities, contaminated media, the contaminants present, and scope and role of response action.

GWCC Groundwater Contamination Cases

VERSION DATE: 08/26/16

This report contains a listing of groundwater contamination cases which were documented for the 2013 calendar year. Texas Water Code, Section 26.406 requires the annual report to describe the current status of groundwater monitoring activities conducted or required by each agency at regulated facilities or associated with regulated activities. The agencies reporting these contamination cases include the Texas Commission on Environmental Quality, Railroad Commission of Texas, Texas Alliance of Groundwater Districts, and Department of State Health Services.

HISTGWCC Historic Groundwater Contamination Cases

VERSION DATE: 12/31/12

This historic report contains all agency groundwater contamination cases documented from 1994 to 2012. The agencies that reported these contamination cases included the Texas Commission on Environmental Quality, Railroad Commission of Texas, Texas Alliance of Groundwater Districts, and Department of State Health Services.

LIENS TCEQ Liens

VERSION DATE: 06/16/17

Liens filed upon State and/or Federal Superfund Sites by the Texas Commission on Environmental Quality.

MSD Municipal Setting Designations

VERSION DATE: 11/02/17

The Texas Commission on Environmental Quality defines an MSD as an official state designation given to property within a municipality or its extraterritorial jurisdiction that certifies that designated groundwater at the property is not used as potable water, and is prohibited from future use as potable water because that groundwater is contaminated in excess of the applicable potable-water protective concentration level. The prohibition must be in the form of a city ordinance, or a restrictive covenant that is enforceable by the city and filed in the property records. The MSD property can be a single property, multi-property, or a portion of property.

NOV Notice of Violations

VERSION DATE: 02/24/16

This database containing Notice of Violations (NOV) is maintained by the Texas Commission on Environmental Quality. An NOV is a written notification that documents and communicates violations observed during an inspection to the business or individual inspected.

SIEC01 State Institutional/Engineering Control Sites

VERSION DATE: 09/06/17

The Texas Risk Reduction Program (TRRP) requires the placement of institutional controls (e.g., deed notices or restrictive covenants) on affected property in different circumstances as part of completing a response action. In its simplest form, an institutional control (IC) is a legal document that is recorded in the county deed records. In certain circumstances, local zoning or ordinances can serve as an IC. This listing may also include locations where Engineering Controls are in effect, such as a cap, barrier, or other engineering device to prevent access, exposure, or continued migration of contamination. The sites included on this list are regulated by various programs of the Texas Commission on Environmental Quality (TCEQ).

SPILLS Spills Listing

VERSION DATE: 04/13/17

This Texas Commission on Environmental Quality database includes releases of hazardous or potentially hazardous materials into the environment.

TIERII Tier I I Chemical Reporting Program Facilities

VERSION DATE: 12/31/12

The Texas Tier II Chemical Reporting Program in the Department of State Health Services (DSHS) is the state repository for EPCRA-required Emergency Planning Letters (EPLs), which are one-time notifications to the state from facilities that have certain extremely hazardous chemicals in specified amounts. The Program is also the state repository for EPCRA/state-required hazardous chemical inventory reports called Texas Tier Two Reports. This data contains those facility reports for the 2005 through the 2012 calendar years.

DCR Dry Cleaner Registration Database

VERSION DATE: 08/31/17

The database includes dry cleaning drop stations and facilities registered with the Texas Commission on Environmental Quality.

IHW Industrial and Hazardous Waste Sites

VERSION DATE: 07/03/17

Owner and facility information is included in this database of permitted and non-permitted industrial and hazardous waste sites. Industrial waste is waste that results from or is incidental to operations of industry, manufacturing, mining, or agriculture. Hazardous waste is defined as any solid waste listed as hazardous or possesses one or more hazardous characteristics as defined in federal waste regulations. The IHW database is maintained by the Texas Commission on Environmental Quality.

PIHW Permitted Industrial Hazardous Waste Sites

VERSION DATE: 07/03/17

Owner and facility information is included in this database of all permitted industrial and hazardous waste sites. Industrial waste is waste that results from or is incidental to operations of industry, manufacturing, mining, or agriculture. Hazardous waste is defined as any solid waste listed as hazardous or possesses one or more hazardous characteristics as defined in federal waste regulations. Permitted IHW facilities are regulated under 30 Texas Administrative Code Chapter 335 in addition to federal regulations. The IHW database is maintained by the Texas Commission on Environmental Quality.

PST Petroleum Storage Tanks

VERSION DATE: 10/04/17

The Petroleum Storage Tank database is administered by the Texas Commission on Environmental Quality (TCEQ). Both Underground storage tanks (USTs) and Aboveground storage tanks (ASTs) are included in this report. Petroleum Storage Tank registration has been a requirement with the TCEQ since 1986.

APAR Affected Property Assessment Reports

VERSION DATE: 04/24/17

As regulated by the Texas Commission on Environmental Quality, an Affected Property Assessment Report is required when a person is addressing a release of chemical of concern (COC) under 30 TAC Chapter 350, the Texas Risk Reduction Program (TRRP). The purpose of the APAR is to document all relevant affected property information to identify all release sources and COCs, determine the extent of all COCs, identify all transport/exposure pathways, and to determine if any response actions are necessary. The Texas Administrative Code Title 30 §350.4(a)(1) defines affected property as the entire area (i.e. on-site and off-site; including all environmental media) which contains releases of chemicals of concern at concentrations equal to or greater than the assessment level applicable for residential land use and groundwater classification.

BSA Brownfields Site Assessments

VERSION DATE: 09/06/17

The Brownfields Site Assessments database is maintained by the Texas Commission on Environmental Quality (TCEQ). The TCEQ, in close partnership with the U.S. Environmental Protection Agency (EPA) and other federal, state, and local redevelopment agencies, and stakeholders, is facilitating cleanup, transferability, and revitalization of brownfields through the development of regulatory, tax, and technical assistance tools.

CALF Closed & Abandoned Landfill Inventory

VERSION DATE: 11/01/05

The Texas Commission on Environmental Quality, under a contract with Texas State University, and in cooperation with the 24 regional Council of Governments (COGs) in the State, has located over 4,000 closed

and abandoned municipal solid waste landfills throughout Texas. This listing contains "unauthorized sites". Unauthorized sites have no permit and are considered abandoned. The information available for each site varies in detail and this historical information is not updated. Please refer to the specific regional COG for the most current information.

DCRPS Dry Cleaner Remediation Program Sites

VERSION DATE: 09/01/17

This list of DCRP sites is provided by the Texas Commission on Environmental Quality (TCEQ). According to the TCEQ, the Dry Cleaner Remediation Program (DCRP) establishes a prioritization list of dry cleaner sites and administers the Dry Cleaning Remediation fund to assist with remediation of contamination caused by dry cleaning solvents.

IOP Innocent Owner / Operator Database

VERSION DATE: 06/09/17

Texas Innocent Owner / Operator (IOP), created by House Bill 2776 of the 75th Legislature, provides a certificate to an innocent owner or operator if their property is contaminated as a result of a release or migration of contaminants from a source or sources not located on the property, and they did not cause or contribute to the source or sources of contamination. The IOP database is maintained by the Texas Commission on Environmental Quality.

LPST Leaking Petroleum Storage Tanks

VERSION DATE: 10/09/17

The Leaking Petroleum Storage Tank listing is derived from the Petroleum Storage Tank (PST) database and is maintained by the Texas Commission on Environmental Quality. This listing includes aboveground and underground storage tank facilities with reported leaks.

MSWLF Municipal Solid Waste Landfill Sites

VERSION DATE: 09/29/17

The municipal solid waste landfill database is provided by the Texas Commission on Environmental Quality. This database includes active landfills and inactive landfills, where solid waste is treated or stored.

RRCVCP Railroad Commission VCP and Brownfield Sites

VERSION DATE: 10/25/17

According to the Railroad Commission of Texas, their Voluntary Cleanup Program (RRC-VCP) provides an incentive to remediate Oil & Gas related pollution by participants as long as they did not cause or contribute to the contamination. Applicants to the program receive a release of liability to the state in exchange for a successful cleanup.

RWS Radioactive Waste Sites

VERSION DATE: 07/11/06

This Texas Commission on Environmental Quality database contains all sites in the State of Texas that have been designated as Radioactive Waste sites.

STCV Salt Caverns for Petroleum Storage

VERSION DATE: 09/01/06

The salt caverns for petroleum storage database is provided by the Railroad Commission of Texas.

VCP Voluntary Cleanup Program Sites

VERSION DATE: 09/06/17

The Texas Voluntary Cleanup Program (VCP) provides administrative, technical, and legal incentives to encourage the cleanup of contaminated sites in Texas. Since all non-responsible parties, including future lenders and landowners, receive protection from liability to the state of Texas for cleanup of sites under the VCP, most of the constraints for completing real estate transactions at those sites are eliminated. As a result, many unused or underused properties may be restored to economically productive or community beneficial uses. The VCP database is maintained by the Texas Commission on Environmental Quality.

WMRF Recycling Facilities

VERSION DATE: 11/01/12

This listing of recycling facilities is provided by the Texas Commission on Environmental Quality's Recycle Texas Online service. The company information provided in this database is self-reported. Since recyclers post their own information, a facility or company appearing on the list does not imply that it is in compliance with TCEQ regulations or other applicable laws. This database is no longer maintained and includes the last compilation of the program participants before the Recycle Texas Online program was closed.

IHWCA Industrial and Hazardous Waste Corrective Action Sites

VERSION DATE: 10/16/17

This database is provided by the Texas Commission on Environmental Quality (TCEQ). According to the TCEQ, the mission of the industrial and hazardous waste corrective action program is to oversee the cleanup of sites contaminated from industrial and municipal hazardous and industrial nonhazardous wastes. The goals of this program are to: Ensure that sites are assessed and remediated to levels that protect human health and the environment; Verify that waste management units or facilities are taken out of service and closed properly; and to Facilitate revitalization of contaminated properties.

SF State Superfund Sites

VERSION DATE: 09/23/16

The state Superfund program mission is to remediate abandoned or inactive sites within the state that pose an unacceptable risk to public health and safety or the environment, but which do not qualify for action under the federal Superfund program (NPL - National Priority Listing). As required by the Texas Solid Waste Disposal Act, Texas Health and Safety Code, Chapter 361, the Texas Commission on Environmental Quality identifies and evaluates these facilities for inclusion on the state Superfund registry. This registry includes any recent developments and the anticipated action for these sites.

Environmental Records Definitions - TRIBAL

USTR06 Underground Storage Tanks On Tribal Lands

VERSION DATE: 04/24/17

This database, provided by the United States Environmental Protection Agency (EPA), contains underground storage tanks on Tribal lands located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

LUSTR06 Leaking Underground Storage Tanks On Tribal Lands

VERSION DATE: 04/24/17

This database, provided by the United States Environmental Protection Agency (EPA), contains leaking underground storage tanks on Tribal lands located in EPA Region 6. This region includes the following states: Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

ODINDIAN Open Dump Inventory on Tribal Lands

VERSION DATE: 11/08/06

This Indian Health Service database contains information about facilities and sites on tribal lands where solid waste is disposed of, which are not sanitary landfills or hazardous waste disposal facilities, and which meet the criteria promulgated under section 4004 of the Solid Waste Disposal Act (42 U.S.C. 6944).

INDIANRES Indian Reservations

VERSION DATE: 01/01/00

The Department of Interior and Bureau of Indian Affairs maintains this database that includes American Indian Reservations, off-reservation trust lands, public domain allotments, Alaska Native Regional Corporations and Recognized State Reservations.

APPENDIX E

Site Photographs

Photograph 1. Typical view of the subject property.

Photograph 2. View of covered dumpsite on the east side of subject property.

Photograph 3. View of typical pipeline right-of-way on subject property.

Photograph 4. View of aboveground pipeline in the southeast corner of the subject property.

Appendix D

SHPO Determination

LONGHORN COUNCIL
BOY SCOUTS OF AMERICA

February 16, 2017

RECEIVED
SEP 28 2017

NO HISTORIC PROPERTIES AFFECTED
PROJECT MAY PROCEED
by JA TLA Justin Kockets
for Mark Wolfe
State Historic Preservation Officer
10/27/2017

Mark Wolfe
State Historic Preservation Officer, Texas Historical Commission
P.O. Box 12276
Austin, TX 78711-2276

Dear Mr. Wolfe,

This letter is to notify you that the Longhorn Council, Boy Scouts of America is preparing to construct a Shotgun Sports and Hunter Education Training Center at Sid Richardson Scout Ranch in Runaway Bay, Texas and to request SHPO Consultation. Financial assistance for this project is being provided through a grant under the Wildlife and Sport Fish Restoration Program from the United States Fish and Wildlife Service (USFWS) that will be administered by the Texas Parks and Wildlife Department (TPWD). The program is authorized by the Wildlife Restoration Act (Pittman-Robertson) of 1937.

Sid Richardson Scout Ranch is private property owned by the Boy Scout Foundation of the Longhorn Council, Boy Scouts of America.

The proposed project is to construct, operate, and maintain an outdoor facility to provide hunter education and shotgun safety and shooting training to Scouts and the public. The construction and operation of this outdoor training facility would provide youth and adults from the Boy Scouts of America, as well as youth and adults from the general public in surrounding communities with greater opportunities to learn about and develop shotgun and hunting skills.

The proposed project would build the items and shooting sports facilities listed below.

1. 3 regulation Trap ranges, located side by side with safety walls between them and on each side. The center of the 3 ranges is to be built as a combination Skeet and regulation Trap range (or combination Five-Stand and regulation Trap range).

2. A training center building, with a large covered porch, based on the 60 foot x 50 foot NRA Trap and Skeet Range Building Floor Plan.

3. A septic field for bathrooms in the Training center.

4. A walk-through Sporting Clays trail with nine individual Sporting Clays stations, each with a small shooting pavilion and a thrower house. Each station will be set up to simulate a different game bird species. Walking trails between the each program station or area, designed to accommodate wheelchairs.

5. Extension of utility lines – water and electrical – along existing oil company above-ground oil pipeline routes.

6. A widening of an existing gravel side road to create roadside parking areas for participants.

The shooting sports facilities will be constructed from plans in the National Rifle Association's "2012 Range Source Book: A Guide to Planning and Construction," the industry standard source for planning, design, construction and maintenance of shooting range facilities.

The area of potential effects (APE) including all areas of construction, demolition, and ground disturbance (direct effects) is largely level and waterless upland grazing land and scrub forest, and is next to the camp's existing field shotgun range. Based on the archaeological survey of the site by Alan Skinner of AR Consultants, Inc. and Art Tawater, regional Steward, Texas Historical Commission, it is unlikely the construction will disturb any historical sites. The broader surrounding area that might experience visual or other effects from the project (indirect effects) is largely screened by intervening forest and hills. See the attached cultural resources survey report for the project area by AR Consultants, Inc., the attached list of known historic sites for area of potential effects (APE) analysis, and the attached project work description, maps, site plans, drawings, reports, and photographs.

Please send any correspondence and information regarding this request to the attention of Jeff Peters, project manager, Longhorn Council BSA, PO Box 54190, 850 Cannon Drive, Hurst, TX 76054. Thank you for your consideration of this request.

Sincerely,

Jeff Peters, Project Manager
Director of Support Services
Longhorn Council BSA
jeff.peters@scouting.org
jpeters@longhorn.org
Cell: 817-706-1526
Office: 817-231-8500 ext. 503
Fax: 817-231-8600

Attachments

Shotgun Sports and Hunter Education Training Center
Sid Richardson Scout Ranch, Runaway Bay, Texas
Longhorn Council BSA

Area of Potential Effects

The area of potential effects (APE) including all areas of construction, demolition, and ground disturbance (direct effects) is largely level and waterless upland grazing land and scrub forest on the main ridge plateau in an area called Thunderbird Ridge. It is a roughly hexagonal 5.5 acre area on the east side of the southeast part of Thunderbird Ridge road (a gravel camp road that leads to 2 oil well sites) and a narrower curving 2-3 acre section in a field just west of Thunderbird Ridge road. The APE is on the south and southeast side of the camp's existing shotgun field range. See attached maps.

Based on the archaeological survey of the site by Alan Skinner of AR Consultants, Inc. and Art Tawater, a volunteer regional Steward for the Texas Historical Commission, it is unlikely the construction will disturb any historical sites either directly or indirectly. The broader surrounding area that might experience visual or other effects from the project (indirect effects) is largely screened by intervening forest and ridges or hills.

Historical Sites Within a 7 Mile Radius of the Project (Indirect APE)

CEMETERIES

Jim Ned Cemetery (McDaniel #2) Cemetery ID Number WS-C036 Atlas Number 7497014105
1.4 miles from project site at 180 degrees. Screened by forest and intervening ridges, hills.
(May be the same cemetery as McDaniel Cemetery #1.)

McDaniel Cemetery #1 Cemetery ID Number WS-C141 Atlas Number 7497003605
1.4 miles from project site at 180 degrees. Screened by forest and intervening ridges, hills.

Wizard Wells Cemetery Cemetery ID Number JA-C008 Atlas Number 7237000805
5.0 miles from project site at 254.5 degrees. Screened by forest and intervening ridges, hills.

Green Elm Cemetery Cemetery ID Number JA-C007 Atlas Number 7237000705
3.39 miles from project site at 289.9 degrees. Screened by forest and intervening ridges, hills.

Morrow Cemetery Cemetery ID Number JA-C006 Atlas Number 7237000605
2.48 miles from project site at 280 degrees. Screened by forest and intervening ridges, hills.

Hutchinson Cemetery Cemetery ID Number WS-C144 Atlas Number 7497014405
5.35 miles from project site at 48.7 degrees. Screened by forest and intervening ridges, hills.

Saunders Cemetery Cemetery ID Number WS-C131 Atlas Number 7497013105
3.2 miles from project site at 51.2 degrees. Screened by forest and intervening ridges, hills.

Allison Family Cemetery Cemetery ID Number WS-C166 Atlas Number 7497016605
4.55 miles from project site at 95.7 degrees. Screened by forest and intervening ridges, hills.

Blocker Cemetery Cemetery ID Number WS-C158 Atlas Number 7497015805
2.95 miles from project site at 350.4 degrees. Screened by forest and intervening ridges, hills.

Mexican Cemetery (Cemeterio Mexicano)
5.57 miles from project site at 96 degrees. Screened by forest and intervening ridges, hills.

HISTORICAL MARKERS

Hyde Cemetery Historical Marker 2606 Atlas Number 5497002606
5.22 miles from project site at 193.3 degrees. Screened by forest and intervening ridges, hills.

Wizard Wells Historical Marker 5884 Atlas Number 5237005884
5.5 miles from project site at 250 degrees. Screened by forest and intervening ridges, hills.

First Baptist Church of Chico Historical Marker 1620 Atlas Number 5497001620
6.4 miles from project site at 47.4 degrees. Screened by forest and intervening ridges, hills.

Toll Bridge & Old Bridgeport Historical Marker 5499 Atlas Number 5497005499
6.0 miles from project site at 113 degrees. Screened by forest and intervening ridges, hills.

Lake.Bridgeport WWII Training Historical Marker 18227 Atlas Number 5507018227
4 miles from project site at 167.3 degrees. Screened by forest and intervening ridges, hills.

Siddons-Barnes Log Cabin Historical Marker 4693 Atlas Number 5497004693
6.63 miles from project site at 46.9 degrees. Screened by forest and intervening ridges, hills.

Hanna-Robinson-Richey Drugstore Historical Marker 2364 Atlas Number 5497002364
6.58 miles from project site at 45.9 degrees. Screened by forest and intervening ridges, hills.

The Methodist Church in Chico Historical Marker 5378 Atlas Number 5497005378
6.51 miles from project site at 47 degrees. Screened by forest and intervening ridges, hills.

Brown Hotel Historical Marker Number 531 Atlas Number 5497000531
6.76 miles from project site at 48 degrees. Screened by forest and intervening ridges, hills.

NATIONAL REGISTER SITES

Brown, J. T., Hotel National Register Listing Atlas Number 2079003026
6.76 miles from project site at 48 degrees. Screened by forest and intervening ridges, hills.

UNMARKED / UNLISTED SITES (Approximate locations within a 7 mile radius of the project)

Russell Ranch – raid by the Comanche Aug 26, 1868
Approximately 2.86 miles from project site at 41.7 degrees. Screened by forest & intervening ridges, hills.

Head Riley killed in action Nov 1869 with the Comanche
Approximately 4.2 miles from project site at 255 degrees. Screened by forest & intervening ridges, hills.

J.B. Earhart's Ranch & Butterfield Stage Line Station - 3 Comanche attacks
Approximately 4 miles from project site at 324 degrees. Screened by forest & intervening ridges, hills.

Isaac Knight - killed in action with Comanche while guarding J.B. Earhart Ranch horses
Approximately 6.9 miles from project site at 300 degrees. Screened by forest & intervening ridges, hills.

HISTORICAL SITES LOCATED ON SID RICHARDSON SCOUT RANCH PROPERTY

(These 3 sites were surveyed by members of the Tarrant County Archaeological Society around year 2000.)

Frontier Battalion Outpost

1.07 miles from project site at 48.65 degrees. Screened by forest and intervening ridges, hills.

There is a dug out and stone-lined defensive position at the very top of this hill with an excellent view over miles of the surrounding area, including crossings of the old Trinity River bed. It is not certain who built or manned it. Local legend says this was a cavalry outpost of observation. It is more likely an outpost manned by local Frontier Battalion volunteers trying to protect the frontier during the Civil War. The site was surveyed by the Tarrant County Archaeological Society around 2000.

The camp uses this site as the centerpiece of a US Cavalry living history program. The program gives Scouts an opportunity to learn the history of the Red River War of the early 1870's by serving as a soldier in the 4th U.S. Cavalry on the Texas frontier.

Native American Campsite Area

0.92 miles from project site at 180 degrees. Screened by forest and intervening ridges, hills.

This site is along the shoreline of the lake where two streams came together before the Trinity River was impounded. This site had easy access to water and was protected by the high ridge from the cold north winds of winter. The streambeds were flooded by the construction of the Lake Bridgeport dam in 1929-1931 and by the raising of dam height in the 1960s. It is usually underwater except in extended periods of drought when the lake is down 20 feet or more. Finds have included flint points and stone tools like grinding stones. The site was surveyed by the Tarrant County Archaeological Society around 2000.

Devils Den Hollow Ruin

2.12 miles from project site at 258 degrees. Screened by forest and intervening cliffs, ridges, hills.

The site was a weekend retreat of the the Ashe Ranch from the purchase of the property in 1930 by Eugene Ashe to the early 1960's. The site contains the ruins of a summer home built in the 1930's and 1940's by Mr. Shawver, the business partner of Eugene Ashe. Mr. Shawver who owned a general store in Vineyard, Texas. In the 1930's and 1940's he constructed a three story cabin on the side of the cliffs on the east side of Devil's Den hollow where they would take their families when they would visit the ranch on weekends in the summer. The structure began to collapse by the mid-1960'S and was unused before the property was purchased for BSA and became Sid Richardson Scout Ranch. The ruin is featured by the camp as a historic site and a showpiece for the camp's hiking trail system. The site was surveyed by the Tarrant County Archaeological Society around 2000.

Notes on Devils Den legends and history.

The canyon has been called Devils Den for as long as can be remembered. It has quite a bit of local history lore, but little is documented prior to the early 1960's when a series of 3 stories were published in the Bridgeport, Texas, newspaper. All 3 stories were related to 2 brothers in Bridgeport with an interest in collecting and preserving the history of the area.

1. Legends say that Spanish gold was buried in "devils den" - about $200,000 worth of Spanish gold coins from the period of the rebellion against Maximillian, at the time of our Civil War.

2. The site is said to be the original burial place of Jim Ned, a Delaware Indian chief who served during the Republic of Texas and early statehood as scout for the Texas militia. Ned served with Capt. Samuel Highsmith in a battle against the Wichita Indians on the upper Brazos River in 1847.

3. The site was homesteaded at times starting about 1828.

4. The rugged cliffs and canyon at the site are said by locals to have been a hideout for the outlaw Sam Bass and his gang, with additional stories of hidden loot.

5. A Hermit lived here before 1900. This is where the location received its name, because the "devil" would shoot at intruders and is said to have guarded the hidden $200,000 treasure of Spanish gold coins.

6. The site is reported to have been a nudist camp around the turn of the century in 1900.

Appendix E

AR Consultants Cultural Resources Survey

Shotgun Sports and Hunter Education Training Center Project
Sid Richardson Scout Ranch, Longhorn Council BSA

AR Consultants, Inc.

Archaeological and Environmental Consulting
805 Business Parkway, Richardson, Texas 75081
Phone: (214) 368-0478
Fax: (214) 221-1519
E-mail: arcdigs@aol.com

AN ARCHAEOLOGICAL SURVEY AT

SID RICHARDSON SCOUT CAMP

WISE COUNTY, TEXAS

By:

S. Alan Skinner, PhD
Principal Investigator
and
Kandi L. Doming, BS

Prepared for:

LONGHORN COUNCIL, BSA
850 Cannon Drive
Hurst, Texas 76054

Prepared by:

AR CONSULTANTS, INC.
805 Business Parkway
Richardson, Texas 75081

Cultural Resources Report 2014-DRAFT
December 10, 2014

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Cultural Resources Report 2014-DRAFT
December 10, 2014

ABSTRACT

The Longhorn Council of the Boy Scouts of America is proposing to construct two shotgun ranges at Sid Richardson Scout Camp in western Wise County, Texas. The ranges will be located on Thunderbird Ridge in the central part of the Ranch. The council is going to apply to the Texas Parks and Wildlife Department for a construction grant. In order to receive the grant, an archaeological survey of the proposed shotgun range sites was required. Based on experience with previous investigations in this area and because of past involvement with the Longhorn Council and the National Council of the Boy Scouts of America, AR Consultants, Inc. agreed to conduct an archaeological survey of the two shotgun range sites. This survey was done with the assistance of the regional Steward from the Texas Historical Commission, Art Tawater. Based on previous investigations, it was anticipated that the potential of finding prehistoric and historic sites would be low due to the largely level and waterless upland setting of the survey area. This expectation proved to be correct, although previously recorded historic sites are present in the upland on the Ranch property. Based on the negative survey findings, AR Consultants, Inc. recommends that construction of the shotgun ranges will have no impact upon significant cultural resources and recommends that further cultural resource investigations of the combined eight-acre tract are unwarranted. If buried cultural materials are encountered during construction, construction should stop in that area and Texas Parks and Wildlife should be notified immediately.

ACKNOWLEDGEMENTS

Jeff Peters, Director of Support Services, Camps and Programs, with the Longhorn Council called AR Consultants, Inc. requesting information about the known archaeology at the Sid Richardson Scout Ranch in Wise County, Texas. The council needed information to include with their application for a grant application. After several conversations, ARC agreed to organize an archaeological survey of proposed development areas at the Ranch. Jeff directs a very active living history program at the camp during the summer and was hoping that we could collect additional information about the archaeology on the property. He volunteered to guide us to the study area and be part of the field team. We want to thank him for the invitation and for the interest that he has for the history and prehistory of the upper West Fork area at Lake Bridgeport. We also want to thank Brian R. Glass, AIA, for his longtime interest in the history of the Ranch. He and Jeff facilitated an archaeological survey of parts of the Ranch by the Tarrant County Archeological Society more than ten years ago.

The Stewards Program of the Texas Historical Commission is thanked for their encouragement of archaeological investigations throughout North Central Texas. Their involvement with the Tarrant County Archeological Society is widely known and the previous survey at the Ranch contributed a baseline for the present investigation. We want to thank the earlier survey team members who were consulted about sites and field conditions before this study was done. In particular, Art Tawater, who participated as a team field member and is to be thanked for his assistance and the regional perspective on both the prehistoric and historic archaeology that he shared with the entire team.

The senior author would like to acknowledge the advice that the following individuals provided him during his learning about the archaeology of North Central Texas: R. King Harris, William L. Young, Skipper Scott, Brian Jameson, C. Reid Ferring, and the late Mark J. Lynott. The authors accept responsibility for any errors in documentation or interpretation in this report, but shares credit to all the above for any contribution that this study may make to the understanding of North Central Texas history and archaeology.

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r-arc SidRichardsonBSA2014-83

INTRODUCTION

On November 25, 2014, AR Consultants, Inc. (ARC) conducted a pedestrian archaeological investigation of two small tracts of land located in the rocky upland part of Sid Richardson Boy Scout Ranch [hereafter "the Ranch"] in west central Wise County, Texas (Figure 1). The Ranch is one of three camps operated by the Longhorn Council of the Boy Scouts of America (BSA). The council is applying to the Texas Parks and Wildlife Department for a grant to construct two shotgun ranges on the Ranch. The Longhorn Council opened the camp in 1969 and at that time, it consisted of slightly more than 3,000 acres. Prior to land acquisition, the property belonged in part to the Ashe Ranch and in part to the Tarrant County Water Board. The Ranch ranges from the lake edge, which is estimated to be at approximately the 840' amsl elevation, to high ridges that occur north and south of the inundated channel of the West Fork of the Trinity River north of Runaway Bay.

The shotgun range study area consists of two parts. The first is the site of a Sporting Clays Walk-Thru Trail Range that will include approximately 2.5 acres. The second is the location of a Training Facility Building and three Side-by-Side ranges that will cover roughly 5.5 acres. Hiking trails and pipeline corridors occur in each part of the study area. The Texas Parks and Wildlife Department requested an archaeological investigation of the study area. The senior author and ARC were previously involved in the development of the Boy Scouts' Archaeology Merit Badge (Skinner 1993, 1995; Skinner et al. 1998). After discussing the project with the Longhorn Council, the senior author volunteered ARC to assist in conducting the investigation. The survey team included Art Tawater, Texas Historical Commission Steward from Dennis, Texas and Jeff Peters from the Longhorn Council staff. A permit from the Texas Historical Commission (THC) to conduct the archaeological survey was not required and there is no other state or federal involvement in the project beyond that of the Texas Parks and Wildlife Department.

The purpose of the investigation was to locate any cultural resources that might be present within the proposed construction sites and, if found, to make recommendations about their significance and how they might be impacted by construction. The scope of the project included a records review, an on-site pedestrian archaeological site survey, site documentation, and a final report. This report was written in accordance with the report guidelines adopted by the THC, Division of Archeology, and developed by the Council of Texas Archeologists (ND). The following report presents a brief description of the natural and cultural environmental resources of the area. The research design and methodology and then the results of the field investigation follow. A section, which offers recommendations, concludes the body of the report. A list of references cited follows.

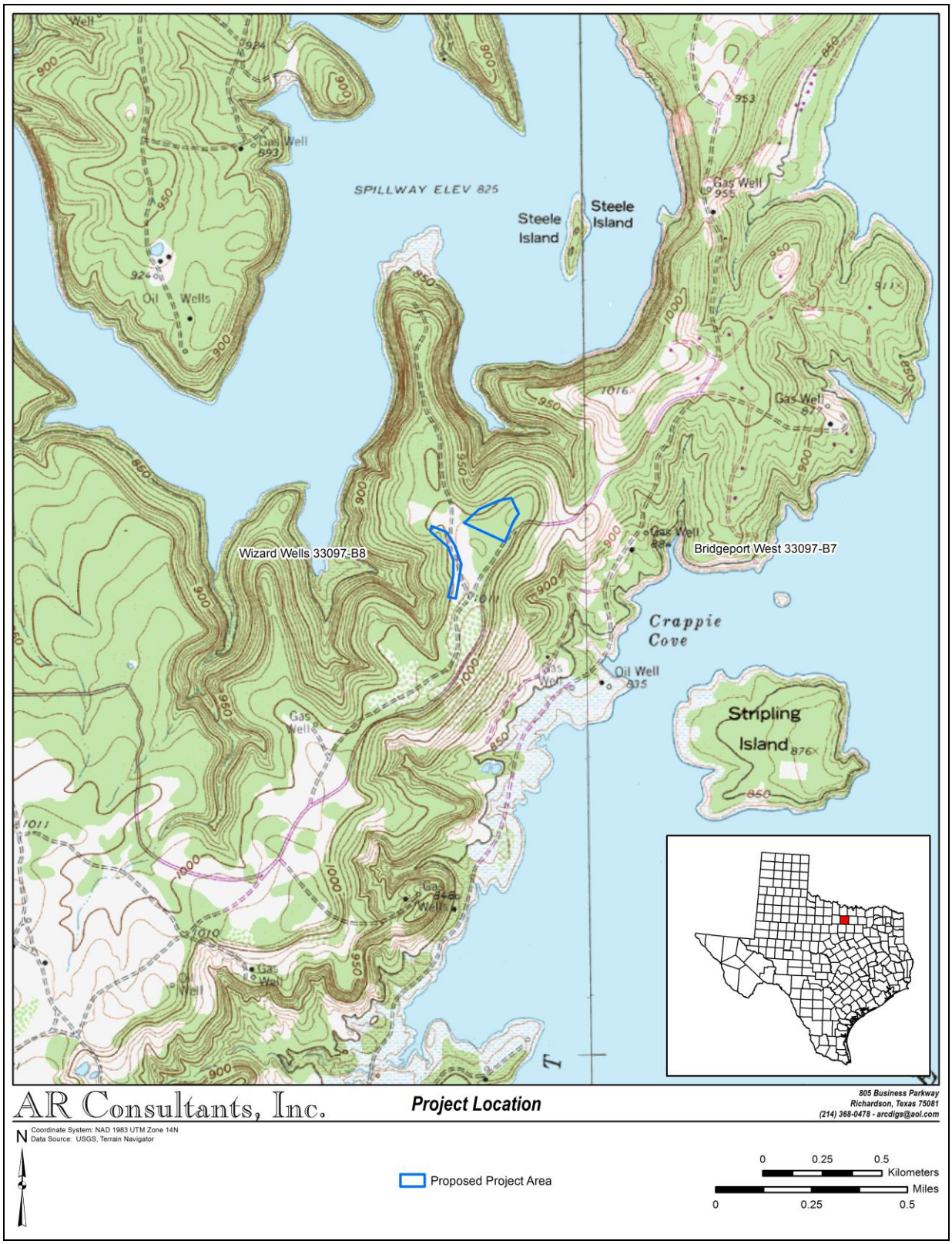

Figure 1 Shotgun range survey areas shown on sections of the Bridgeport West and Wizard Wells, TX 7.5' USGS maps.

Administrative Information:

Sponsor:	Longhorn Council, Boy Scouts of America
Review Agency:	Texas Historical Commission and Texas Parks and Wildlife
Field Work Date:	November 25, 2014
Principal Investigator:	S. Alan Skinner, PhD
Field Crew:	Art Tawater, Jeff Peters, and Skinner
Field (Person) Days:	3
Acres Surveyed:	8
Sites Recorded:	None
Historic Resources Evaluated:	None
Curation Facility:	Sid Richardson Scout Ranch Museum

NATURAL ENVIRONMENT

Wise County is located in North Central Texas and is part of the North Central Plains region. The area consists of hilly terrain and dark grayish brown, stony clay loam soils that overlie sandstone and limestone bedrock. The county is divided from north to south between the eastern Grand Prairie and the Western Cross Timbers regions of Texas (Griffith et al. 2007). The study area is located on a peninsula on the north side of Lake Bridgeport.

An estimated half of Wise County is included with the "Fringe" division of the Western Cross Timbers as described by Dyksterhuis (1948:Figure 1). The main division of the area is characterized as being principally sandy, but the vegetation of the main belt of the Western Cross Timbers, is characterized by a sparse overstory of post oak (*Quercus stellatta*) and blackjack oak (*Quercus marilandica*). The remainder of this region, as mapped by Dyksterhuis, was open grassland prairie which has since been invaded by other trees and today is known for the mesquite and juniper thickets that are present (Francaviglia 2000:198).

The geology of the county is primarily Lower Cretaceous in age (Bureau of Economic Geology 1991), and it is upon these limestone formations and overlying soils that the main belt of the Western Cross Timbers is found. The immediate project area is mapped as Chico Ridge Limestone and Jasper Creek Formation (Bureau of Economic Geology 1991). Recent Quaternary alluvium is not mapped within the study area. During survey, sandy loam soils and sandstone bedrock were primarily observed in the study area

Detailed soil mapping for Wise County shows there are two main soils in the survey area (Ressel 1989:Sheet 29). Palopinto extremely stony silty clay loam is the most common soil and is present throughout the smaller survey area, covering approximately one third of the three Side-by-Side range area. Bonti fine sandy loam is present in the southern and eastern parts of the three Side-by-Side range area and is moderately deep and gently sloping at an average of three percent. Sandstone underlies the sandy loam. Areas of sandstone and limestone are present in the main Shotgun Range site. Small areas of clay loam are scattered throughout the study area.

The area is inhabited by a variety of mammals, birds, reptiles, and other animals. This region is included in Blair's Texan biotic region (1950). The Texan is described as being transitional between the forests of eastern Texas and the grasslands of western Texas.

Water resources in the study area are tied to seasonal rainfall, as no regular surface water is found in this upland setting. Prehistoric occupation of the area correlated to available water. Intermittent tributaries that feed into the West Fork could have served as a source of water for prehistoric people. Damming of the river was completed in 1932, during the Trinity River canalization project, as a measure to prevent flooding along the West Fork of the Trinity River (Texas Parks and Wildlife 2014).

CULTURE HISTORY

Over the past several decades, cultural resources investigations in the western and northwestern parts of the Metroplex have lagged behind those reported from Dallas County, and therefore the database of information to which current projects can be compared is limited. The deficit is due in part to the absence of large construction projects and as a result, there is little published literature on the archaeology of the area, particularly in Wise County, except for a synthesis of the National Grasslands prepared by the Archaeology Research Program at Southern Methodist University (Jurney et al. 1989).

The following culture history is derived from the monograph "Lower Elm Fork Prehistory" by Daniel J. Prikryl (1990). Prikryl's framework includes six prehistoric periods, and the historic Native American and Historic periods have been added:

Historic	150 years B.P. to the present
Native American	250 to 150 years B.P.
Late Prehistoric II	750 to 250 years B.P.
Late Prehistoric I	1250 to 750 years B.P.
Late Archaic	3500 to 1250 years B.P.
Middle Archaic	6000 to 3500 years B.P
Early Archaic	8500 to 6000 years B.P.
Paleoindian	pre-8500 years B.P. (Before Present)

Using Prikryl's time framework, the following paragraphs present a brief description of the culture history of the region.

The Paleoindian period is distinguished by distinctive projectile point styles attributed to this period. Many of the points are made of exotic cherts that are not native to North-Central Texas. The Lewisville site and the Aubrey Clovis site in Denton County are the only excavated Paleoindian sites in the region. Surface artifacts generally come from deposits on stream terraces above the level of the active floodplain. This is a period when large mammals became extinct, and their extinction is attributed in part to a general drying of the environment. A single Clovis point has been reported from Wise County (Bever and Meltzer 2007:Table 1).

During the Early Archaic, the general drying continued, and sites are found on stream terraces. There is a hint of population increase, and Lynott (1981:103) suggests that there was increased emphasis on the use of bottomland food resources. Prikryl (1990:71) cannot confirm Lynott's suggestion, and in fact, he reports fewer bottomland sites than during the previous period. Middle Archaic sites are primarily found on the first terrace above stream floodplains.

Late Archaic sites increase in number over the previous period, and sites are located both along the rivers and along tributaries. There appears to be a strong shift in site location to the tributary streams and a pronounced population explosion. Local Ogallala quartzite

was being used prominently at this time, and some authors (Skinner 1981; Prewitt 1983) take this observation as evidence of increased territorial restrictions.

During the Late Prehistoric I period, the bow and arrow and pottery appear in artifact assemblages (Shafer 1976). Houses and probable evidence of agriculture first appear during this period, although none are known to be in Wise County. Site locations mirror those of the Late Archaic, and quartzite continues as the common material for chipped stone projectiles and other stone tools. The West Fork Paleosol is dated to this period, and drying continued into the subsequent period.

The Late Prehistoric II is highlighted by the prominence of buffalo in archaeological sites and the appearance of tools normally expected to occur at sites on the High Plains of West Texas. It also appears that sites are once again located on sandy terraces above the floodplains.

Beginning in the 1830s and continuing into the 1840s, according to some historical documents, the aboriginal inhabitants of North-Central Texas continued to play an infamous if not important role in the history of that region. Very little archaeological evidence, however, of historic Native American occupation has been found in the North-Central Texas. This is a pattern seen throughout much of Texas, and one that has been suggested is due to the inability of the Native Americans to adapt to the changing climate (Skinner 1988).

The 1830s and 1840s were decades of Anglo expansion into North-Central Texas. Garrett, a well-respected Fort Worth historian, has stated, "Indian hostilities almost depopulated North Texas [of Anglo settlers] after 1839. It dwindled to less than half (Garrett 1972:24)". According to oral history, many Indians of several tribes roamed in the area until well into the 1860s.

Strategies for dealing with the illusive aboriginal population ranged from armed confrontation and pursuit to across-the-table dialogue. Rising from a domestic background of dealing with Indians, President of the Republic of Texas, Sam Houston, realized rapprochement was preferable to direct confrontation. In the summer of 1843, a council with the Indians was called, and in September of that year ten tribes signed a treaty which was approved by the Senate the following January. The treaty provided the needed impetus for settlement of several counties in the North-Central Texas area. Settlers, however, had been steadily arriving in the county during those 20 years. Many came through the auspices of Peters Colony land grants, although only 160 families and single pioneers took advantage of the grants (Garrett 1972:57).

Previous Investigations

A review of the Texas Archeological Sites Atlas (TASA 2014) showed three sites were previously recorded within approximately a mile and a half of the survey area. All three sites are located on ranch property and were recorded by members of the Tarrant County Archeological Society. Site 41WS51 is a prehistoric site that consists of a scatter of fire-

cracked rock and chipped stone debitage and tools that had been exposed by lake wave action. Three rock-lined hearths were recorded, and both dart and arrow points were collected from the site. Site 41WS53 is another prehistoric site where metates, metate fragments, a mano, and a hammerstone were collected. Both prehistoric sites are located on the terrace above the West Fork of the Trinity River. The artifacts from these sites are currently housed in the Sid Richardson Scout Ranch Museum. Site 41WS52 is located northeast of the study area on an upland prominence. The site consists of a crudely piled, roughly square historic rock wall located on top of the high point. The site is considered to have been used as a lookout by soldiers from Fort Richardson. A dugout depression, two rock-outlined depressions, and an apparent gun emplacement are just outside or downslope from the crude hilltop rock wall.

SWCA Environmental Consultants conducted an archaeological survey of approximately 270 acres in southwestern Wise County, north of SH 199 near the junction of Wise, Jack and Parker counties (Barile 2000). This is the site of the Wise County Power Project. Ninety-three shovel tests were excavated through the area, but no archaeological sites were recorded. Additionally, in 2004 ARC conducted an archeological survey of 651.72 acres that are located approximately 12 miles southwest of the current study area (Skinner and Todd 2004). During this survey, 40 shovel tests were excavated that did not uncover any buried cultural materials. One historic site was recorded based on piles of limestone. The historic site is interesting since it has been interpreted as a location where hard limestone was gathered into piles with the anticipation that it would be taken by wagon to a commercial lime kiln operation near Gibtown for processing into cement (Skinner 2004). No artifacts were recovered but the hammered rock and arrival of the railroad and commercially available cement by 1900 offer evidence that the rock piles were created in the late 1800s.

PBS&J (Sills and Cliff 2002) conducted a cultural resources survey of 35 miles of transmission line for ONCOR Electric that ran from Jacksboro to Graham, Texas. A total of 1,079 shovel tests were dug and only one prehistoric site (41JA15), which consisted of two flakes, was recorded in the right-of-way. A historic cemetery was recorded which was outside the right-of-way. In sum, these surveys show that archaeological site density is low in this part of Wise and adjacent Jack counties.

Additionally, a synthesis of the LBJ National Grasslands report has provided insight to where potential sites are to be expected in Wise and surrounding counties. A review of the National Register of Historic Places and the list of Texas Historical Commission markers indicates that no significant sites contained in these reports are in the study area (TASA 2014). However, the potential for historic cultural resources is much higher than for prehistoric sites based on the recorded data and the limited high potential areas for prehistoric sites along major drainages versus the larger areas in the uplands where historic sites might be found (Jurney et al. 1989:Figures 38 and 39). The generally negative results of previous studies, in keeping with the predictive model of upland areas containing few prehistoric sites, has been attributed to the lack of permanent water as well as the lack of protection from inclement weather. In contrast, floodplain settings in the region are common locations for finding deeply buried prehistoric deposits.

RESEARCH DESIGN AND METHODOLOGY

Prior to conducting the field investigation, ARC reviewed previous reports and records regarding cultural resource sites in the vicinity of the study area as discussed above. Several sites and reports of previous surveys were found in the files of the Texas Archeological Sites Atlas (TASA 2014), including four sites that are located on the Ranch. Based on previous survey in the surrounding area, it was predicted that prehistoric habitation was directly tied to the presence of reliable surface water. Thus, if water was present in the past, habitation was likely since other food resources including mast-bearing trees, other plants, along with terrestrial animals including deer, were and remain present in the area. However, if water was not available, utilization of the area was likely only for the purpose of hunting and gathering on a seasonal basis. In the case of the two firing range locations, bedrock is exposed on the surface or there is a thin soil cover and there is no place where water would have been regularly available. Although lost hunting tools and temporary camps might be encountered, it was predicted that prehistoric utilization of the area was likely to have been limited and the expected archaeological manifestations to be ephemeral. The only other reason that the area might have been occupied prehistorically would have been if upland fields of Uvalde Gravels were present (Boyd 1971; Banks 1990). If gravels were naturally present, lithic quarry assemblages might also be present.

Historic occupation is not shown to be present in this upland setting on twentieth century maps. Roads, residences, and rural communities are shown at lower elevations where water was available and where farmable floodplain and terrace soils are present. Consequently, there was little expectation of finding historic sites in the upland study area.

A pedestrian survey of the two shotgun range areas was conducted by first walking the perimeter of each area and then by walking parallel transects that were spaced 20-30 m apart. Shovel testing was done in areas where ground visibility was less than 30-percent, but not where the surface had recently been cleared and refuse from other parts of the ranch had been dumped. Shovel tests averaged 30 cm in diameter and the generally sandy loam matrix was screened through ¼" galvanized steel mesh shaker screens. Shovel test locations and other important locations were tagged with handheld GPS units. Photographs were taken with a GPS-equipped digital camera.

Backhoe trenching was not necessary due to the thin topsoil in this upland setting and the shallow depth to the subsoil or bedrock clays, sandstone, and limestone.

RESULTS

The study area consists of two areas. The first is the site of a Sporting Clays Walk-Thru Trail Range that will cover an area of approximately 2.5 acres. The second is the location of a Training Facility Building and three Side-by-Side ranges that will include roughly 5.5 acres.

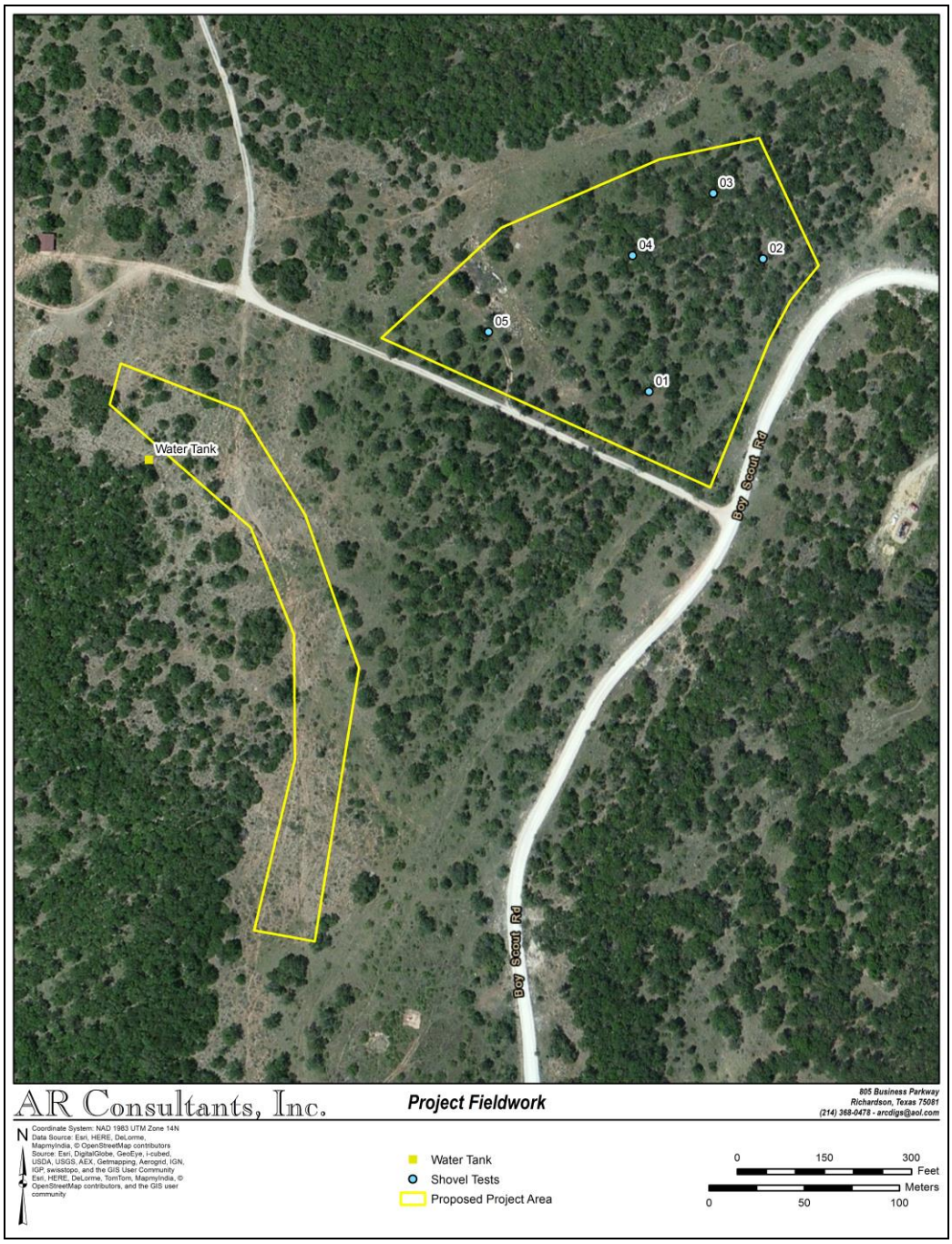

Figure 2. Sporting Clays Walk-Thru Trail Range is shown to the left and the Overlapping Ranges are shown to the right on this recent aerial photograph.

Survey began at the north end of the Sporting Clays Walk-Thru Trail Range and proceeded to the south walking parallel transects. This range area is to be located in an area that includes an abandoned three-phase distribution line that once provided power to a now capped well pad site that is immediately north but outside the study area. A steel pipeline extends south and arcs west from the well pad site and continues beyond the study area. This pipeline has also been abandoned. Based on recent and previous aerial photographs, virtually all of the trail survey area appears to have been cleared of most trees and brush (Figures 3 and 4). This area was probably used as a firing lane for hunters who leased the land before the Ranch was established. Brush, grass clumps, prickly pear cactus and some barrel cactus have invaded this area but it stands in stark contrast with the densely forested valley that is situated downslope to the west. Likewise, the adjacent level upland, upslope, is covered by a widely scattered growth of cedar elms and post oaks (Figure 5). Native grasses and fallen leaves cover the ground between the tree trunks. Limestone bedrock is present throughout the immediate study area and surface visibility ranged from a low of 50-percent to a high of 100-percent. Shovel testing was not conducted anywhere in this area and no worked or unworked native chert was found in or on the sandstone bedrock.

Figure 3. Limestone bedrock exposed on surface at the northern end of the Sporting Clays Walk-Thru Trail Range area. View is to the northeast.

Figure 4. Bedrock, grass clumps, prickly pear, and scattered trees in southern end of the Sporting Clays Walk-Thru Trail Range area. View is looking south.

Figure 5. The southwestern end of the Sporting Clays Walk-Thru Trail Range study area showing the dense vegetation at the upslope edge of the valley that is downslope to the west.

A discarded water tank was noted outside the northwestern corner of the Sporting Clays Walk-Thru Trail Range area (Figure 6). The tank is not associated with any visible tower, residential trash or features, or with ranching debris, i.e., it is not a dumpsite. The tank was recorded as Isolated Object No. 1 (IO #1) and is clearly out of primary context. The cylindrical tank is made of corrugated steel and measures 6' long and 5' diameter. The bottom of the tank has been rusted out and no evidence of attachments to a tank stand was noted on the tank bottom. An open hole in the pyramidal top of the tank served as an entry for water that must have come from a wind-powered pump. No evidence of a tap was noted near or in the bottom of the tank but it was not rolled over to explore for a faucet. An eroded company-identifying emblem had been painted on the side of the tank (Figure 8). Two concentric circles outline the emblem. Inside the outer circle, words are visible, yet hard to make out. On the upper left side the word "TENNESSEE" can be made out and on the bottom the words "UNITED" and "STEEL" are discernable (Figure 9). In the center of the inner circle the logo for U.S Steel, U_SS, can be seen clearly when the photo is viewed under a photo negative image filter. The exact wording on the tank is not clear but our reconstruction of the logo is shown as Figure 10.

Figure 6. The pyramidal top of an abandoned water tank that is at the western edge of the Sporting Clays Walk-Thru Trail Range area.

Figure 7. The rusted out base and corrugated steel wall of the abandoned, out of context, and formerly elevated water tank.

Figure 8. The painted on logo for the Tennessee, Coal, Iron, and Railroad Company, a division of US Steel that apparently manufactured the water tank.

Information gathered through visual analysis and research into the United States Steel Corporation (USS) revealed that a company called Tennessee Coal, Iron, and Railroad Company (TCI) had been acquired by them in 1907 (Hillstrom and Hillstrom 2005:70-71). Founded in 1852 by Nashville investors as the Sewanee Mining Company, TCI became one of the most prominent iron companies in the south. The company fell on hard times, after losing a significant amount of money it was reorganized by New York investors as the Tennessee Coal and Railroad Company in 1859. After the Civil War erupted, local creditors took over the company. TCI became Tennessee's leading coal and mining company over the next decade, branching out into coke production as well. Through investments and purchases of competitors in 1886 and 1892, they became the nation's third-largest producer of pig iron. After the panic of 1893, the company moved out of railroads and into steel, eventually being bought out by U.S. Steel in 1907 in a key case that tested the steel corporation's relationship with antitrust government forces. A concise timeline showing the renaming of the company is shown below.

Figure 9. USS logo before image reconstruction.

Figure 10. USS logo with image reconstructed emblem.

Timeline for TCI and USS

1860 Sewanee Mining Company reorganized as the Tennessee Coal and Railroad Company.

1874 Tennessee Coal and Rail, purchases Sewanee Furnace Company; begins coke and iron manufacture in Tennessee. Name changed to Tennessee Coal, Iron and Railroad Company.

1907 U.S. Steel era begins with George Crawford presidency for next 22 years. Capital expansion continues with growth as well as social reforms for company property and workers.

1952 TCI ceases to exist as a separate corporation, becomes TCI Division of US Steel.

The rise of the American steel industry in the south is documented in a book published by U.S. Steel celebrating the centennial of TCI. New developments and modernizing to meet growing demands for steel production after World War II led to new installations and improved use of raw material, in addition to the continued viability of TCI (Tennessee Coal and Iron Division United States Steel Corporation 1960:70). Based on the above information, it is expected that emblem on the side of the water tank reads, "Tennessee Coal, Iron, and Railroad; United States Steel" and has a definite manufacture date prior to 1907. However, based on the inclusion of the USS logo on the emblem the tank likely dates after 1952 when the companies were consolidated.

The Training Facility Building and the Three Side-by-Side range area (Figure 2) are located northwest of the junction of the main camp road and the skeet shooting range road. This area is bounded on the north and northwest by a trail that parallels the edge of the formerly cleared shooting lane, which coincides with a roughly east-west oriented buried pipeline (Figure 11). The northeastern boundary is not marked by any particular features and passes through the open post oak-cedar elm covered grass and leaf covered savannah that characterizes most of the study area (Figure 12). Surveyors walking parallel in 10-20 m transects began by systematically encircling the study area. No historic or prehistoric cultural materials or features were noted on the surface of the ground during this first sweep. The only artifacts found were piles of limestone rock and pieces of metal that had been dumped in the northwest part of the study area.

Figure 11. The cleared trail and buried pipeline route that highlight the northern edge of the three Side-by-Side range area. View is to the west.

Figure 12. Ground cover in northwest central part of the three Side-by-Side range area, looking north.

The entire area was then surveyed by walking north-south transects (Figure 13) and excavating shovel tests in order to determine the depth of the relatively thin topsoil and to explore for buried site deposits (Figure 14). The dump area covers slightly more than an acre of the study area and has been heavily disturbed but no cultural resources were found in the associated disturbed/eroded areas (Figure 15). Along the existing north edge hiking trail and pipeline route, ground visibility/erosion provided for good surface exposure of the sandstone bedrock that includes almost 1.5 acres of the study area. Five shovel tests were excavated within the study area and as shown in Table 1, the topsoil was thin and on top of sandstone bedrock or over clay subsoil, no cultural resources were found below the surface.

Table 1. Shovel Test Results

ST#	Depth (cm)	Description*	Comments/Artifacts
01	0-20 20-26+	Very dark grayish brown (10YR3/2) sandy loam Yellowish red (5YR4/6) clayey loam	None
02	0-19 19+	Dark yellowish brown (10YR3/4) sandy loam Red sandstone bedrock	None
03	0-25 25-30	Brown (10YR4/3) sandy loam Strong brown (7.5YR4/6) loamy clay	None
04	0-12 12-25 25+	Dark brown (7.5YR3/2) sandy loam Strong brown (7.5YR4/6) loamy clay Sandstone bedrock	None
05	0-9 9-17	Dark brown (7.5YR3/3) sandy loam Yellowish red (5YR4/6) loamy clay	None

Figure 13. Open tree cover in the center of the three Side-by-Side range area looking southeast through the trees which are mostly post oaks and cedar elms.

Figure 14. Looking southeast across the eroded trail route that marks the northern edge of the three Side-by-Side range area. Shovel test 4 is being excavated in the distance.

Figure 15. Limestone slabs, dirt, and metal dumped in the western part of the three Side-by-Side range area. View is looking south.

Conclusions

Survey found no evidence of prehistoric occupation in the shotgun range areas. The bedrock did not contain knappable gravels nor were Uvalde Gravels found anywhere on the surface of either survey area, where they were likely to have been exposed in the cleared and heavily traveled trail and pipeline corridors. Surface water was not noted and there is no way that springs could have been present because there is no upslope recharge area. It is likely that wild fires would have swept through the area periodically and this would have kept the tree growth in a savannah condition. A large harvest of acorns would not likely have been produced, although this would not have stopped deer from foraging for nuts in the upland during the fall. However, faunal remains from prehistoric sites in the region (Jelks 1961:66; Stephenson 1970:149; Skinner 1971:225, 263; Lynott 1978:69; Yates 1980) have shown that deer and bison were probably field dressed and the useable parts (meat, bones, hides) carried to rock shelters or to river terrace or tributary valley camps. The presumed field dressing locations have not been reported as such in Wise County but a variety of ephemeral prehistoric sites with limited tool kits have been reported.

Despite the presence of rural roads running the length of Thunderbird Ridge, no evidence of historic occupation was found in the two tracts that comprise the study area. The roads probably provided access to wells that are scattered throughout the area and to hunting camps that are off the ridge top in the West Fork valley. The water tank can be attributed to a residential function but no water wells were noted nearby and the tank shows no evidence of having been filled with rainwater. Although a rural location, the study area is not a setting where an 1800s or early 1900s house was likely to have been constructed (Whorton and Skinner 1995). Thus, the absence of historic occupation in the study area was predictable.

RECOMMENDATIONS

The purpose of this investigation was to determine if significant cultural resources are present within proposed areas for the two shotgun range sites on Thunderbird Ridge at Sid Richardson Scout Camp. Both tracts were surveyed for cultural resources and none were found on the areas where surface exposure averaged better than fifty percent or in the open tree-covered areas or in the area where soil, rock, and metal have been dumped.

AR Consultants concludes that creation of the two shotgun ranges will not endanger any significant cultural resources and recommends that further archaeological investigations are unwarranted. This recommendation is made with the understanding that in the event deeply buried cultural resources are uncovered during construction, work should cease immediately in that area, and Texas Parks and Wildlife should be contacted.

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Appendix F

Geology Report

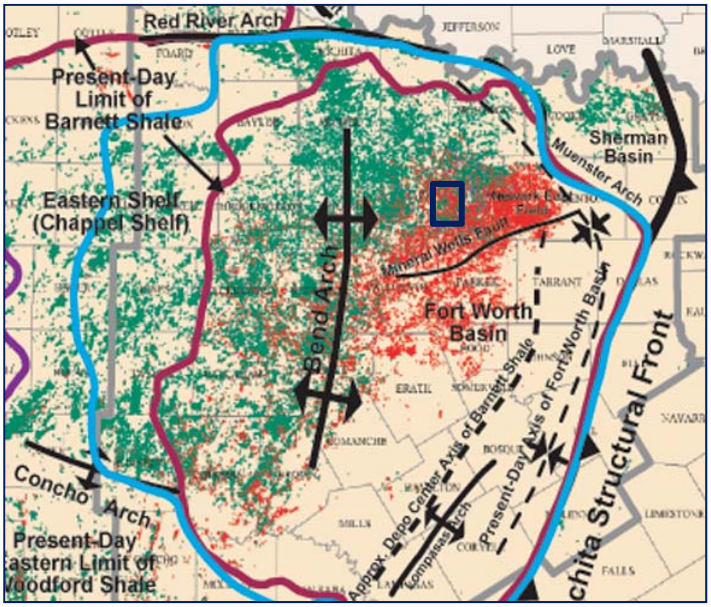
Shotgun Sports and Hunter Education Training Center Project
Sid Richardson Scout Ranch, Longhorn Council BSA

Geology

The new Shooting Range for the Sid Richardson Scout Camp lies on a peninsula extending northward into Lake Bridgeport. Elevation of the spillway is 825' and the elevation of this area lies at over 1000'.

The outcropping rocks are Late Pennsylvanian age Chico Ridge Limestone. This gray limestone is an irregularly bedded algal-echinodermal wackestone (Cherng, 1982, p. 41) that grades laterally into grainstones, packstones, and mudstones. Along with the phylloid algae and crinoid stems that make up the bulk of the fossils, bryozoans and mollusks are also found. The formation contains some shale beds ranging from two to eight feet in thickness that can be seen in outcrop to the south of this location but are not seen at this location. Total thickness of the formation is 170 to 200 feet.

The Chico Ridge limestone was deposited as a marine carbonate bank on the eastern flank of the Bend Arch on the western edge of the Fort Worth Basin (see figure below). This and other carbonate banks formed parallel to the shoreline that trended NE-SW, which is also the trend of the modern outcrop. The Perrin delta to the south and the Henrietta delta to the north were the sources of clastic sedimentation and were separated from the carbonate bank by lagoons and marshes. Shales were deposited in the open marine setting to the west.



Tectonic Map of North Texas: Area of the scout camp and shooting range is outlined in the black box, showing position in the northern Fort Worth Basin and the position of the axis of the Bend Arch (from Pollastro et al, 2003).

The outcrop at the range location is very competent limestone rock with no to very thin soil cover. The pictures below, especially the third one, show the nature of the limestone and the thin soil development. All of the photos were taken in the area of the proposed building and range and show the area that will be the length of the range. The limestone will cause no damage to the building or maintenance of the shooting range nor will the development of the shooting range cause damage to any irreplaceable geologic formation.

Nearby oil and gas wells are far enough away that the shooting range will not interfere with surface facilities. The nearest wells are Milagro Exploration, LLC Ashe BCDE #12, drilled in 1999, and Milagro Ashe BCDE #D7, drilled in 1973, both producing from the Cap Yates Consolidated Conglomerate at 5540 to 5835 feet measured depth below surface. See table below for details. Any well workover would not be at risk caused by the new shooting range.

API #	Company	Lease Name	Well #	County	Field (Formation)	Depth	First Prod	Last Month Oil (3/14) BO	Last Month Gas (3/14) MCF	Surface Lat	Surface Long
42-497-32915	Milagro Exploration, LLC	Ashe BCDE	D7	Wise	Cap Yates (Consolidated Congl)	5888	Dec-73	3	122.6	33.227806	-97.877853
42-497-34351	Milagro Exploration, LLC	Ashe BCDE	12	Wise	Cap Yates (Consolidated Congl)	5870	May-99	0	4.3	33.225624	-97.879997

In summary, the development of a new shooting range is not expected to harm any geologic feature. The geology of the area is not anticipated to harm the shooting range or the people, and there will be no interference with nearby producing-well facilities.

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To: Jeff Peters; jpeters@longhorn.org; ninaron@sbcglobal.net
Subject: Geology of the shooting range
Attachments: Geology of Shooting Range.docx

Please find the short report of the geology of the Sid Richardson Shooting Range attached to this email. You can remove my name from the report if you need to and can reformat it in any way you choose. Let me know if you have any questions or if you think something is missing.
Thanks,

Nina L. Ronalder

Senior Geologist
Finley Resources, Inc.
1308 Lake Street
Fort Worth, Tx 76012
817-231-8767 (o)
214-300-9723 (c)
nronalder@finleyresources.com

Appendix G

Intra-Service Section 7 Biological Evaluation Form

FEDERAL AID SECTION 7 BIOLOGICAL EVALUATION FORM
U.S. Fish and Wildlife Service
Region 2 Federal Aid Programs

Date: January 15, 2022

Originating Person/Phone: Misty Sumner, Wildlife Biologist, MLS Consulting; 254-702-1869; msmuledeer@gmail.com

1. State: Texas

2. Agency: Texas Parks and Wildlife Department

3. Program(s):

X Wildlife Restoration	_ Sport Fish Restoration
X Hunter Education	_Aquatic Education
_ Section 10	_Boating Access
_ Boating Infrastructure Grant	_ Clean Vessel Act
_ State Wildlife Grants	_ Section 6
_ Coastal Wetlands	

4. Grant Title: TX W-514-D-1, Longhorn Council, BSA - Sid Richardson Scout Ranch

5. Project Title and Index Number: Sid Richardson Scout Ranch Shotgun Sports and Hunter Education Training Center

Start Date: 8/9/2021

End Date: 12/31/2022

6. Pertinent Federally Listed Species and Habitat:

A. Listed species and/or their critical habitat within the action area:

Piping Plover	*Charadrius melodus*	LT	no CH
Red Knot	*Calidris canutus rufa*	LT	no CH
Whooping Crane	*Grus americana*	LE	no CH

B. Proposed species and/or proposed critical habitat within the action area:

C. Candidate species within the action area:

Monarch Butterfly	*Danaus plexippus*	C

D. Include species/habitat occurrence on a map.

No known occurrences of any of the above species in the project area.

7. Geographic area:

The Boys Scouts of America; Longhorn Council (BSA-LC) proposes to construct, operate, and maintain a Shotgun Sports and Hunter Education Training Center at Sid Richardson Scout Camp for hunter education instruction, for training scouts and the public in safe and responsible shotgun sports, and to provide Scouts and the public a safe shotgun sports experience. The Camp is located at Boy Scout Road, Runaway Bay, Texas 76426 in Wise County.

8. Location (see attached maps):

A. County and State: Wise County, Texas

B. Section, township, and range (or latitude and longitude): 33°22'83.82"N, 97°87'93.87"W (WGS 84)

C. Distance (miles) and direction to nearest town:
Boy Scout Road,
Runaway Bay, Texas 76426

It is approximately 4 miles south to Runaway Bay, Texas 11 miles east to Bridgeport and
60 miles southeast to Fort Worth.

9. Species/habitat occurrence:

There are no known occurrences of any of the above species or their respective habitats in the project area.

10. Description of proposed action:

The purpose of the project is to provide an outdoor shotgun sports experience and hunter education training to 2000+ scouts, community youth in grades K-12 (including youth from low-income populations) as well as other members of the general public.

A non-toxic shot only shotgun sports center with an eight-acre footprint would be constructed within the Longhorn Council's existing Sid Richardson Scout Ranch property. The project site consists of two parts divided by a gravel road. There will be three side-by-side trap and combination ranges and a training facility building and that will cover roughly 5.5 acres on the north side of the road. There will also be a sporting clays walk-through trail that will include approximately 2.5 acres straddling the edge of a forest and grassland area on the south side of the road.

11. Explanation of effects of the action: The Piping Plover and Red Knot only need to be considered for wind energy projects as they are only migrants through Wise County and will not be addressed further.

The Texas population of wild whooping cranes spend their summers in northern Alberta, Canada and winter along the Texas Gulf Coast. In Texas, the species winters on salt flats, marshes, and along barrier islands in and

immediately adjacent to the Aransas National Wildlife Refuge on the mid-Texas coast (Matthews and Moseley 1990; Campbell 2003). During migration stopovers, whooping cranes utilize freshwater marshes, wet prairies, grain and stubble fields, shallow lakes, and lagoons with good horizontal visibility, water depth of 12 inches or less, and minimum wetland size suitable for roosting (Armbruster 1990; Howe 1989).

Whooping cranes migrate during both spring and fall through a relatively narrow corridor that basically follows a straight line through the Great Plains, with the cranes traveling through Alberta, Saskatchewan, extreme eastern Montana, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas (Canadian Wildlife Service and USFWS 2009). The primary migration corridor is approximately 200 miles wide, although cranes can be pushed east or west by unfavorable winds.

Given how rare whooping cranes are and despite the fact that the project occurs within the primary migration corridor, it is highly improbable that any construction activities would impact migrant whooping cranes as suitable stopover habitat is not present at the proposed site. Construction of the shooting range is also not expected to result in the loss of any wetland habitat that could be used by whooping cranes or create any significant collision risks for the species. For these reasons, it is SWCA's opinion that the proposed project will have no effect on this species.

12. Describe, if known, Project modifications: No project modifications have been made.

13. State Recommendation:

A. Listed species/critical habitat:

No effect (list species/habitat)

Piping Plover	*Charadrius melodus*	LT
Red Knot	*Calidris canutus rufa*	LT
Whooping Crane	*Grus americana*	LE

May affect, not likely to adversely affect (list species/habitat)

May affect, likely to adversely affect (list species/habitat)

B. Proposed species/critical habitat:

No effect (list species/habitat)

Is likely to jeopardize proposed species/
adversely modify proposed critical habitat (list species/habitat)

C. Candidate species:

No effect (list species/habitat)

Monarch Butterfly	*Danaus plexippus*	C

Is likely to jeopardize candidate species (list species/habitat)

14. Remarks:

The information in this Section 7 was gathered from:

- Threatened and Endangered Species Survey of an approximate 13.7-acre property, Wise County, Texas / SWCA Project No. 45618
- USFWS IPaC species list, dated 10/22/2021

15. State Approval:

_____ _____

Signature Date

16. Federal Aid Determination:

A. Listed species/critical habitat:

No effect (list species/habitat)

Piping Plover	*Charadrius melodus*	LT
Red Knot	*Calidris canutus rufa*	LT
Whooping Crane	*Grus americana*	LE

May affect, not likely to adversely affect (list species/habitat)

May affect, likely to adversely affect (list species/habitat)

B. Proposed species/critical habitat:

Not likely to jeopardize proposed species (list species/habitat)

Is likely to jeopardize proposed species/
adversely modify proposed critical habitat (list species/habitat)

C. Candidate species:

Not likely to jeopardize candidate species (list species/habitat)

Monarch Butterfly	*Danaus plexippus*	C

Is likely to jeopardize candidate species (list species/habitat)

Remarks:

_____ _____

Signature Date

17. Reviewing ESSO evaluation:

Concurrence _____ Nonconcurrence _____

Formal consultation required _____

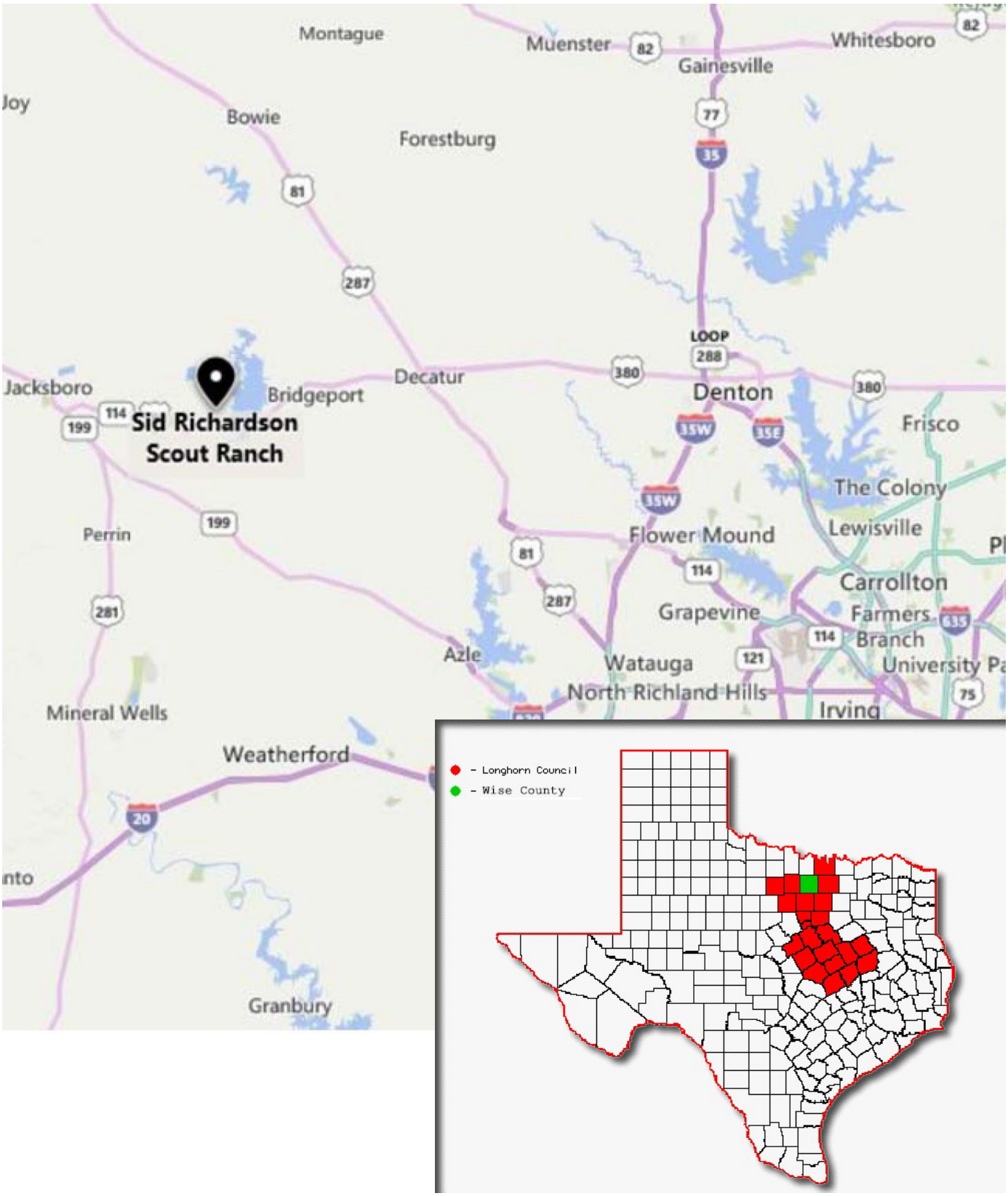
Conference required _____

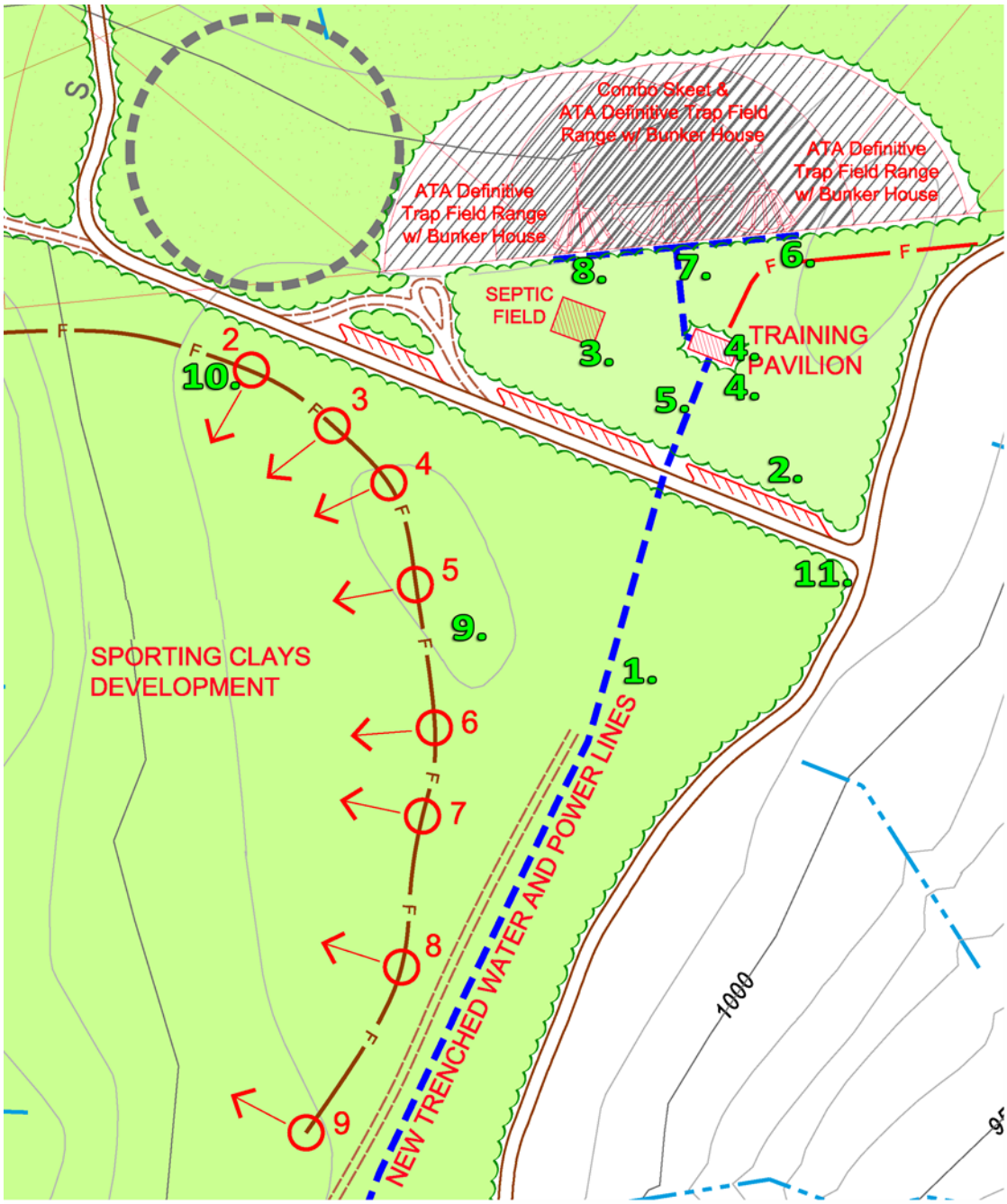
Informal conference required _____

Remarks (attach additional pages as needed):

_____ _____

Signature Date


Montague
Muenster
Whitesboro
Gainesville
Joy
Bowie
Forestburg
Jacksboro
Bridgeport
Decatur
Sid Richardson
Scout Ranch
Denton
Frisco
The Colony
Perrin
Flower Mound
Lewisville
Carrollton
Grapevine
Farmers
Branch
Azle
Watauga
North Richland Hills
Irving
Mineral Wells
Weatherford
Granbury
- Longhorn Council
- Wise County



1. Trenching of Water and power lines.
2. Angled parking areas along the driveway north edge
3. Septic Field for Training building
4. Modified NRA Trap and Skeet Range Training Building
5. Sidewalks / trails
6. ATA Trap Field #1
7. Combo Range: ATA Trap Field #2 and Skeet Range
8. ATA Trap Field #3
9. Sporting Clays walk-through thrower stations
10. Sporting Clays walk-through trail sidewalk
11. Signs

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arlington Ecological Services Field Office
2005 Ne Green Oaks Blvd
Suite 140
Arlington, TX 76006-6247
Phone: (817) 277-1100 Fax: (817) 277-1129
http://www.fws.gov/southwest/es/arlingtontexas/
http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

October 22, 2021

In Reply Refer To:
Consultation Code: 02ETAR00-2022-SLI-0221
Event Code: 02ETAR00-2022-E-00533
Project Name: SR2

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, which may occur within the boundary of your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under section 7(a)(1) of the Act, Federal agencies are directed to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Under and 7(a)(2) and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether their actions may affect threatened and endangered species and/or designated critical habitat. A Federal action is an activity or program authorized, funded, or carried out, in whole or in part, by a Federal agency (50 CFR 402.02).

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For Federal actions other than major construction activities, the Service suggests that a biological evaluation (similar to a Biological Assessment) be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

After evaluating the potential effects of a proposed action on federally listed species, one of the following determinations should be made by the Federal agency:

1. *No effect* - the appropriate determination when a project, as proposed, is anticipated to have no effects to listed species or critical habitat. A "no effect" determination does not require section 7 consultation and no coordination or contact with the Service is necessary. However, the action agency should maintain a complete record of their evaluation, including the steps leading to the determination of affect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related information.
2. *May affect, but is not likely to adversely affect* - the appropriate determination when a proposed action's anticipated effects to listed species or critical habitat are insignificant, discountable, or completely beneficial. Insignificant effects relate to the size of the impact and should never reach the scale where "take" of a listed species occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects, or expect discountable effects to occur. This determination requires written concurrence from the Service. A biological evaluation or other supporting information justifying this determination should be submitted with a request for written concurrence.
3. *May affect, is likely to adversely affect* - the appropriate determination if any adverse effect to listed species or critical habitat may occur as a consequence of the proposed action, and the effect is not discountable or insignificant. This determination requires formal section 7 consultation.

The Service has performed up-front analysis for certain project types and species in your project area. These analyses have been compiled into *determination keys*, which allows an action agency, or its designated non-federal representative, to initiate a streamlined process for determining a proposed project's potential effects on federally listed species. The determination keys can be accessed through IPaC.

The Service recommends that candidate species, proposed species, and proposed critical habitat be addressed should consultation be necessary. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (https://www.fws.gov/birds/management/managed-species/eagle-management.php). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/communication-towers.php.

For additional information concerning migratory birds and eagle conservation plans, please contact the Service's Migratory Bird Office at 505-248-7882.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arlington Ecological Services Field Office
2005 Ne Green Oaks Blvd
Suite 140
Arlington, TX 76006-6247
(817) 277-1100

Project Summary

Consultation Code: 02ETAR00-2022-SLI-0221
Event Code: Some(02ETAR00-2022-E-00533)
Project Name: SR2
Project Type: Federal Grant / Loan Related
Project Description: The project is located on the Sid Richardson Scout Ranch. The Scout Ranch is located in the northwest corner of Wise County, Texas near the town of Runaway Bay. The project site is located 5 miles from the camp entrance gate on the camp's main gravel road.

The project scope is less than 30 acres of the 2500 acres of the Scout Ranch.

Timing: as soon as approved. Construction will avoid nesting seasons.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.2121635,-97.65550897151745,14z

Counties: Wise County, Texas

Endangered Species Act Species

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'SJURISDICTION.

Appendix H

Drawings and Plans

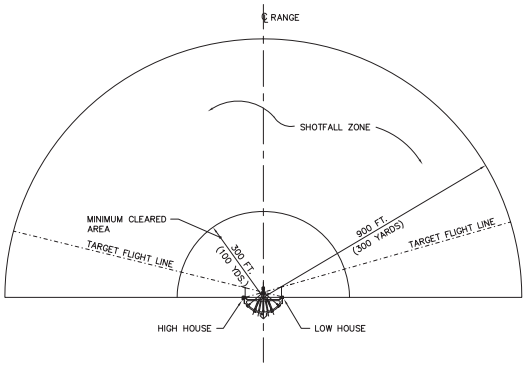
1. 2012 NRA Range Source Book,
    a. Civil Drawings for Competition Shotgun Ranges
    b. Electrical Drawings - Shotgun Ranges

2. Modified floor plans for the L-shaped NRA Trap & Skeet Range Building

3. BSA Design Reference for a Shotgun Range Layout d-312shotgunranges

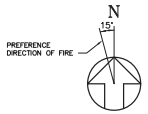
CIVIL DRAWINGS
FOR COMPETITION SHOTGUN RANGES

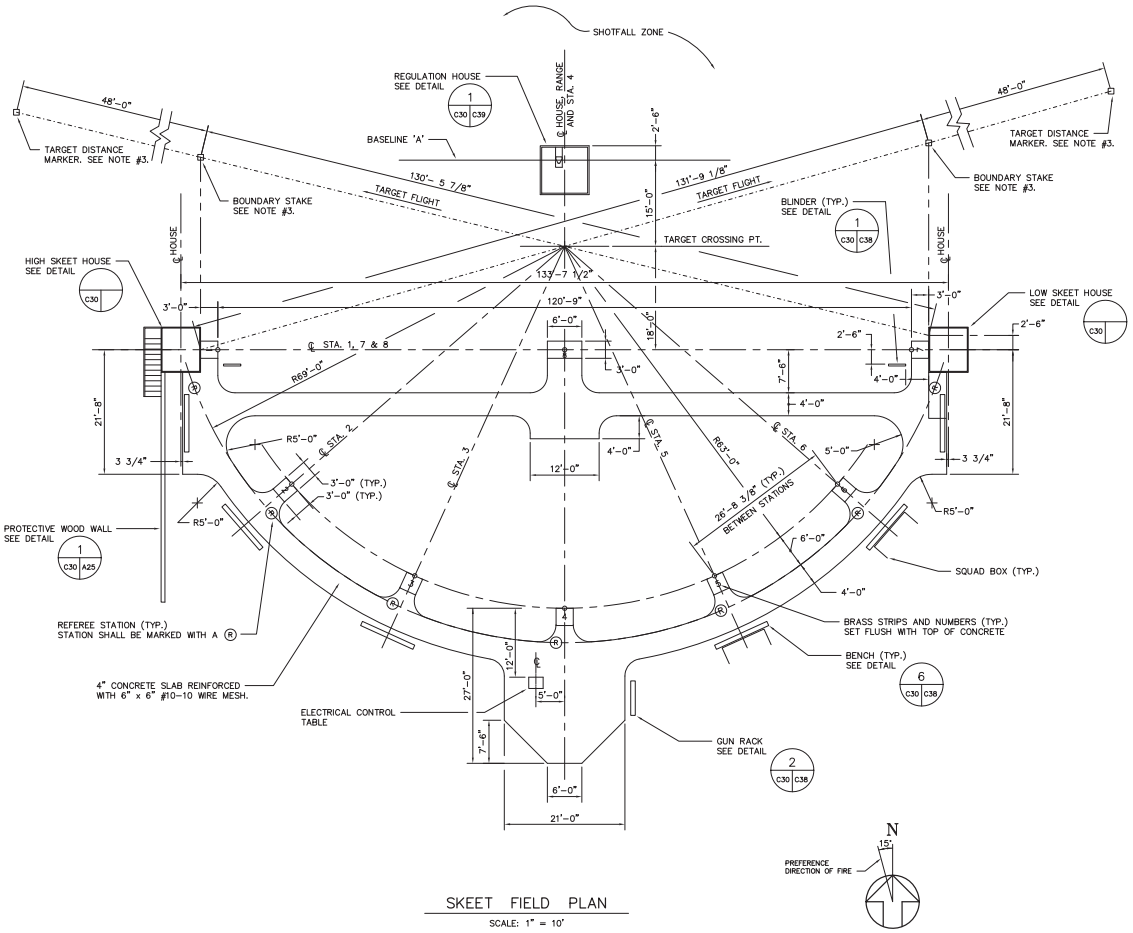
DWG. No.	TITLE
C-30	SKEET FIELD PLAN
C-31	TRAP FIELD PLAN
C-32	TRAP FIELD SHOTFALL ZONE PLAN
C-33	COMBINATION SKEET AND TRAP FIELD PLAN
C-34	INTERNATIONAL TRAP RANGE PLAN AND SECTIONS
C-35	RESERVED FOR FUTURE USE
C-36	RESERVED FOR FUTURE USE
C-37	TURKEY SHOOT RANGE PLAN
C-38	SHOTGUN PAD PLAN AND DETAILS
C-39	AUTOMATIC TRAP HOUSE PLAN AND SECTION



SKEET FIELD SHOTFALL ZONE PLAN

SCALE: 1" =200'





SKEET FIELD PLAN

SCALE: 1" = 10'

NOTES:

1. ALL UNDERGROUND CONDUITS FOR ELECTRICAL WIRING SHALL BE LAID PRIOR TO THE PLACING OF ANY CONCRETE.
2. ALL RADIUS NOT SHOWN ARE 3'-0".
3. THE BOUNDARY STAKES AND TARGET DISTANCE MARKERS SHALL BE 2" x 2", 10'-0" ABOVE GROUND AND PAINTED WHITE IN COLOR.

C30

NO. | REVISION | DATE | BY

SKEET FIELD PLAN

NATIONAL RIFLE ASSOCIATION
RANGE DEPARTMENT
FAIRFAX, VIRGINIA 22030

SHOOTING RANGE
DEFINITIVE DRAWINGS

C. VARGAS & ASSOCIATES, LTD.
CONSULTING ENGINEERS
6596 ARLINGTON EXPRESSWAY
JACKSONVILLE, FLORIDA 32211 (904) 725-7131

DRAWN BY D.E.N. | CHECKED BY C. VARGAS | DATE 5/98 | SUBMITTED BY ____ | REG. ENGR. NO. 16297

C.A.D.D. FILE C-30.DWG

PROJECT NO. 0759

SHEET ____ OF ____

NOT APPROVED FOR CONSTRUCTION DATE ____

DO NOT SCALE DRAWINGS

PLOT DATE: 5/3/98

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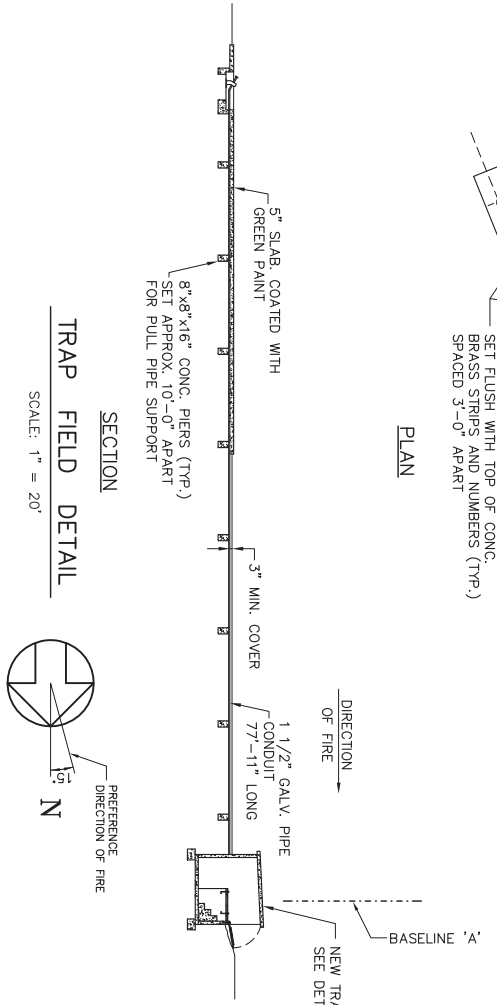
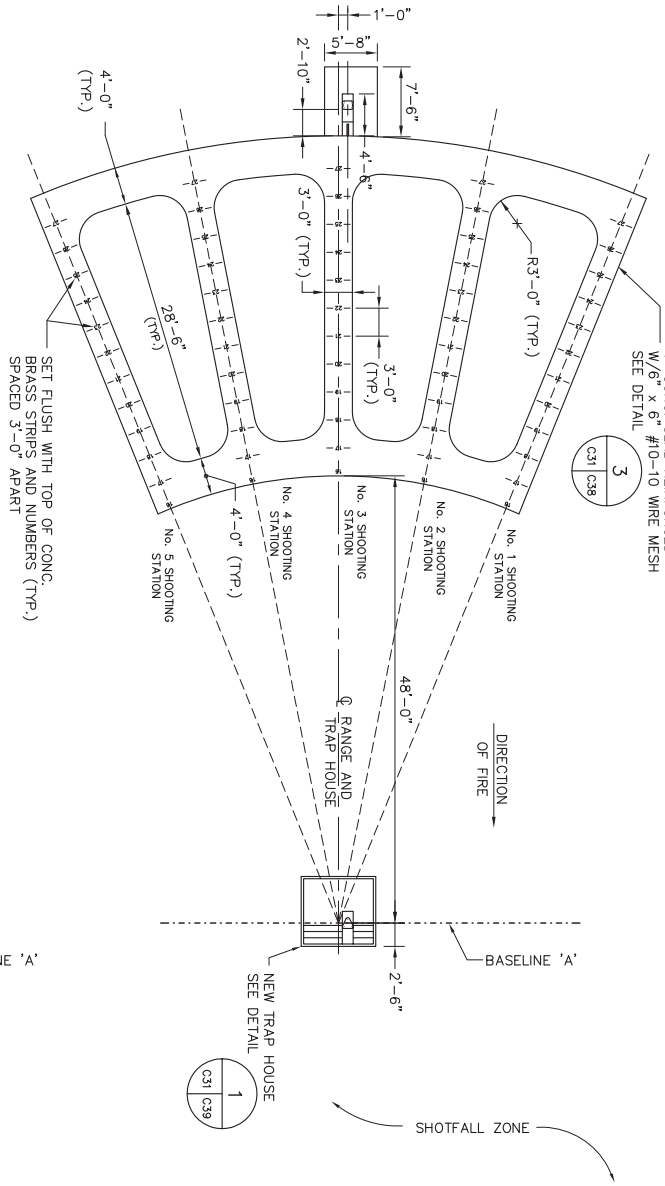
TRAP FIELD DETAIL

SCALE: 1" = 20'



SECTION



PLAN

NOTES:

1. REFERENCE POINT IS THE INTERSECTION OF BASELINE 'A' AND THE ℄ OF THE RANGE AND TRAP HOUSE.
2. BASELINE 'A' IS LOCATED 2'-6" BACK FROM THE FRONT EDGE OF THE TRAP HOUSE.
3. PURSUANT TO A.T.A. RULES, TOP OF THE TRAP HOUSE SHALL NOT BE LESS THAN 2'-2" NOR MORE THAN 2'-10" ABOVE ELEVATION OF No. 3 SHOOTING STATION.

C31

C. VARGAS & ASSOCIATES, LTD.
CONSULTING ENGINEERS
8596 ARLINGTON EXPRESSWAY
JACKSONVILLE, FLORIDA 32211 (904) 725-7131

DRAWN BY D.E.N. | CHECKED BY C. VARGAS | DATE 5/98

SUBMITTED BY _____ REG. ENGR. NO. 16297

NATIONAL RIFLE ASSOCIATION
RANGE DEPARTMENT
FAIRFAX, VIRGINIA 22030

SHOOTING RANGE
DEFINITIVE DRAWINGS

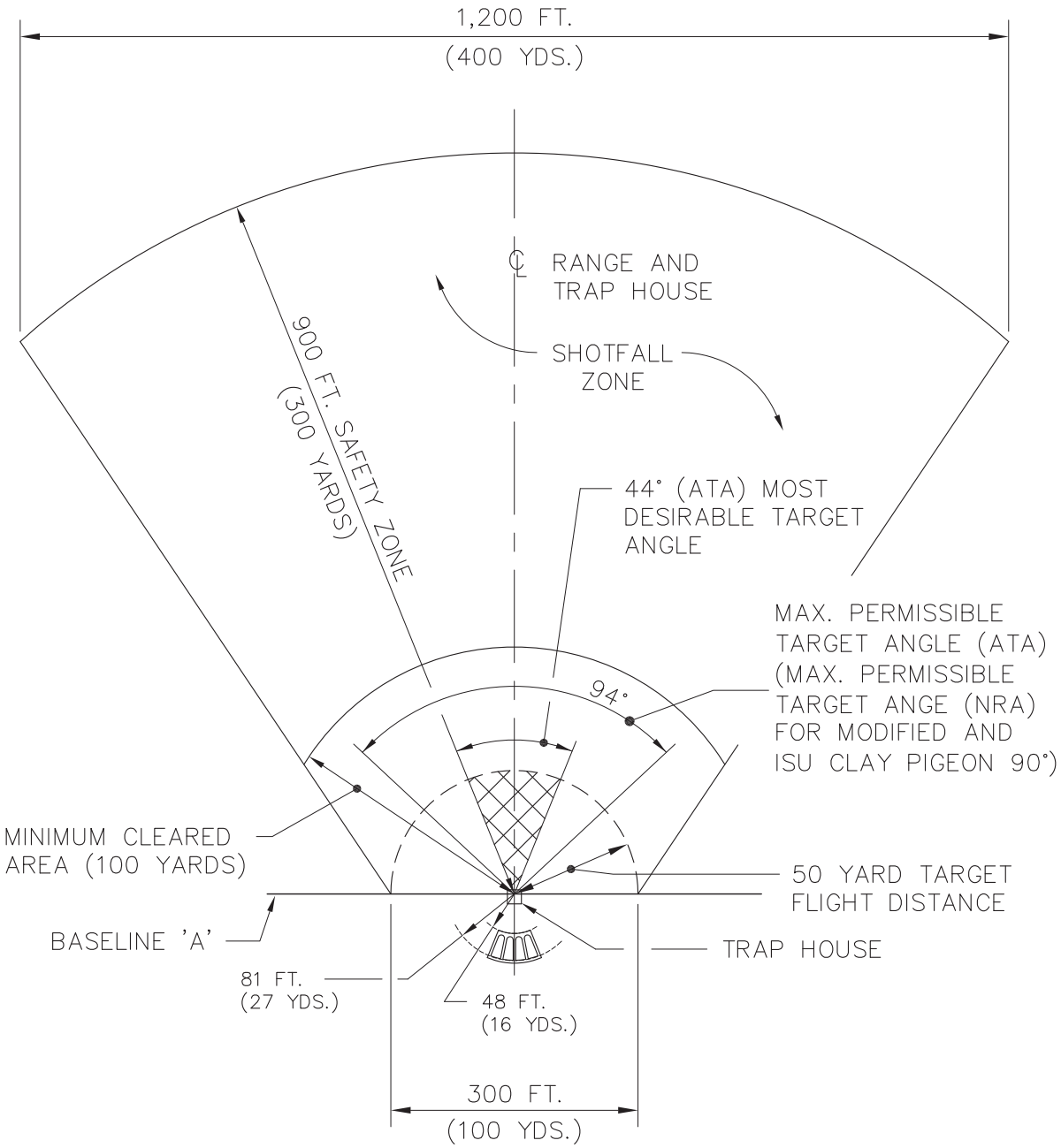
TRAP FIELD PLAN

NO.	REVISION	DATE	BY

C.A.D.D. FILE C-31.DWG
PROJECT NO. 0759
SHEET ___ OF ___

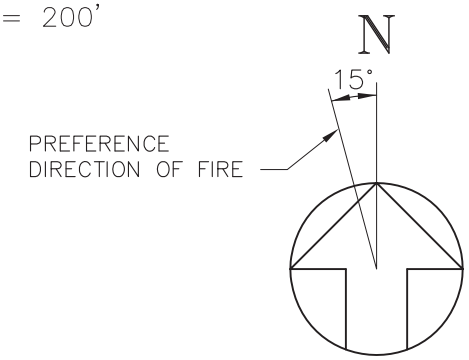
PLOT DATE: 5/3/98

DO NOT SCALE DRAWINGS



TRAP FIELD SHOTFALL ZONE PLAN

SCALE: 1" = 200'



C32

NO.	REVISION	DATE	BY

TRAP FIELD

SHOTFALL ZONE PLAN

NATIONAL RIFLE ASSOCIATION
RANGE DEPARTMENT
FAIRFAX, VIRGINIA 22030

SHOOTING RANGE
DEFINITIVE DRAWINGS

NRA

DO NOT SCALE DRAWINGS

C. VARGAS & ASSOCIATES, LTD.
CONSULTING ENGINEERS
8596 ARLINGTON EXPRESSWAY
JACKSONVILLE, FLORIDA 32211 (904) 725-7131

SUBMITTED BY _____ REG. ENGR. NO. 16297
DRAWN BY D.E.N. | CHECKED BY C. VARGAS | DATE 5/98

C.A.D.D FILE
C-32.DWG

PROJECT NO.
0759

SHEET
____ OF ____

PLOT DATE: 5/3/98

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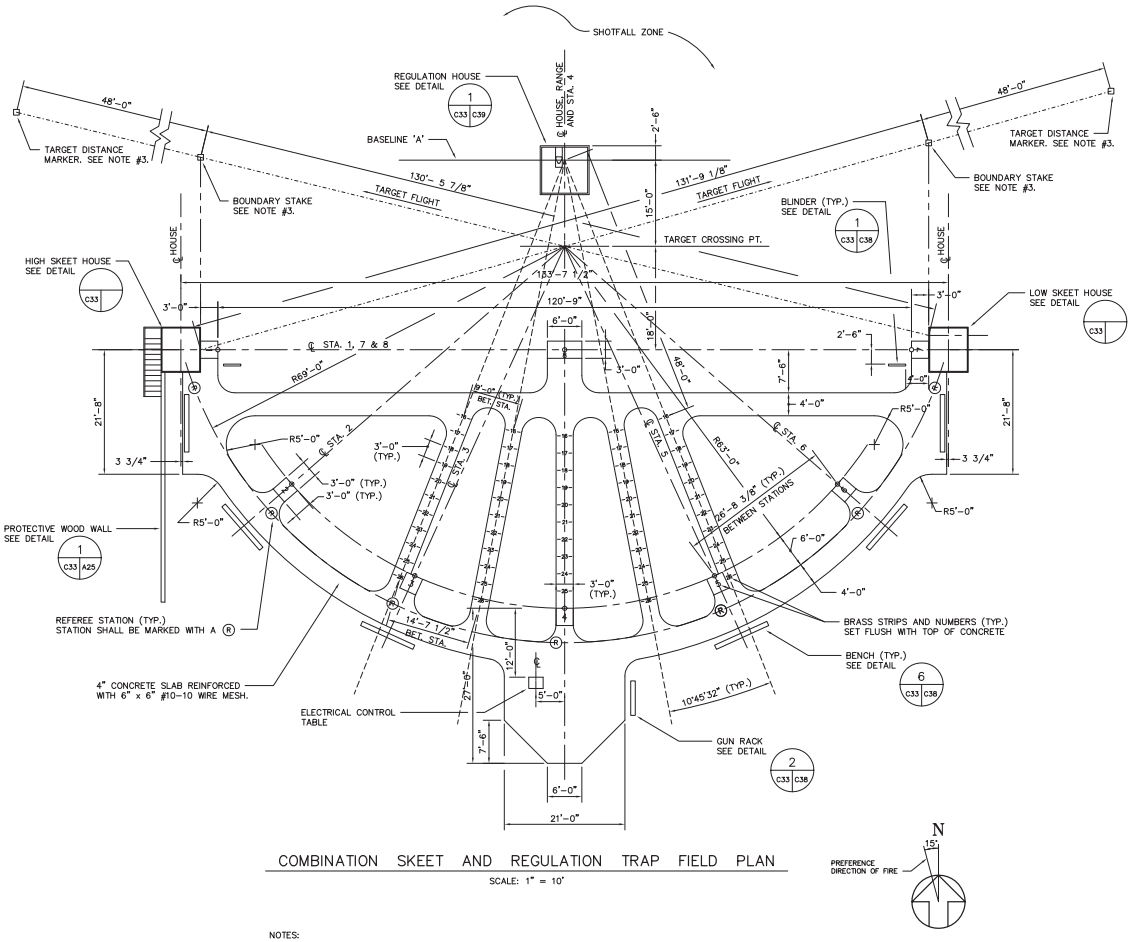


COMBINATION SKEET AND REGULATION TRAP FIELD PLAN

SCALE: 1" = 10'

NOTES:

1. ALL UNDERGROUND CONDUITS FOR ELECTRICAL WIRING SHALL BE LAID PRIOR TO THE PLACING OF ANY CONCRETE.
2. ALL RADIUS NOT SHOWN ARE 3'-0".
3. THE BOUNDARY STAKES AND TARGET DISTANCE MARKERS SHALL BE 2" x 2", 10'-0" ABOVE GROUND AND PAINTED WHITE IN COLOR.
4. SEE DRAWING C-30 FOR SHOTFALL ZONE PLAN.

C33

NATIONAL RIFLE ASSOCIATION
RANGE DEPARTMENT
FAIRFAX, VIRGINIA 22030

COMBINATION SKEET AND TRAP FIELD PLAN

SHOOTING RANGE DEFINITIVE DRAWINGS

NRA

C. VARGAS & ASSOCIATES, LTD.
CONSULTING ENGINEERS
6596 ARLINGTON EXPRESSWAY
JACKSONVILLE, FLORIDA 32211 (904) 725-7131

DRAWN BY D.E.N. | CHECKED BY C. VARGAS | DATE 5/98 | SUBMITTED BY _____ | REG. ENGR. NO. 16297

C.A.D.D. FILE C-33.DWG

PROJECT NO. 0759

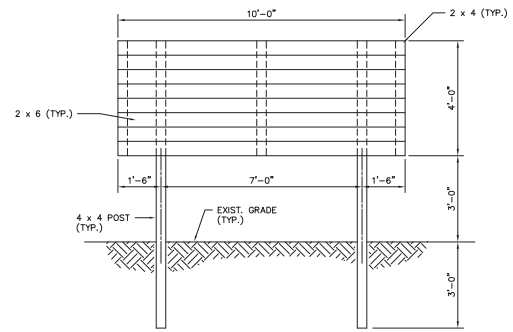
SHEET ____ OF ____

NO.	REVISION	DATE	BY

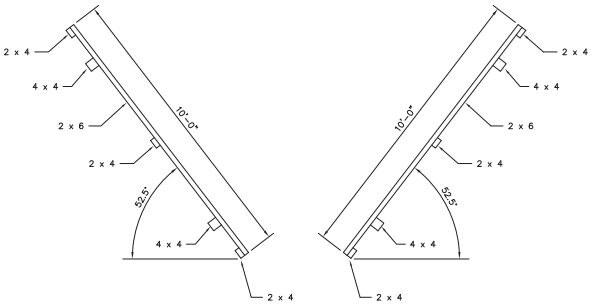
NOT APPROVED FOR CONSTRUCTION DATE: _____

DO NOT SCALE DRAWINGS

PLOT DATE: 5/3/98

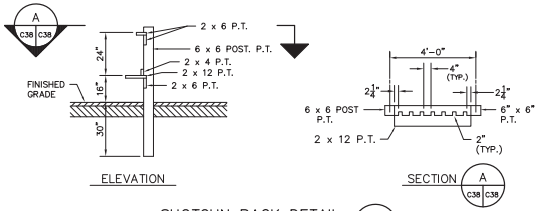


ELEVATION



PLAN

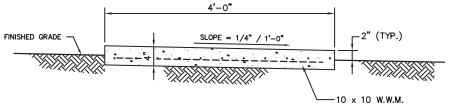
WOODEN WING WALL DETAIL 1 (C30, C38)
SCALE: 1/2" = 1'-0"
C-33



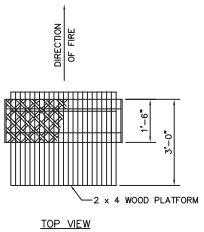
ELEVATION

SECTION A (C38, C38)

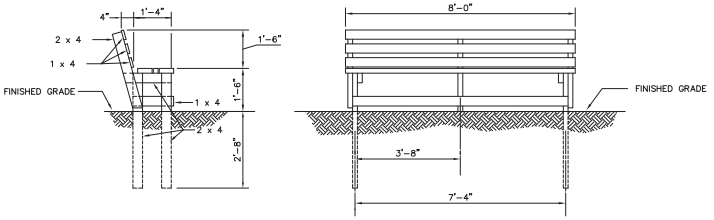
SHOTGUN RACK DETAIL 2 (C38, C38)
SCALE: 3/8" = 1'-0"



NEW SIDEWALK DETAIL 3 (C38, C38)
SCALE: 1" = 1'-0"
A25



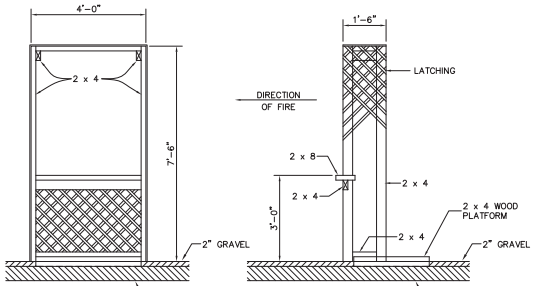
TOP VIEW



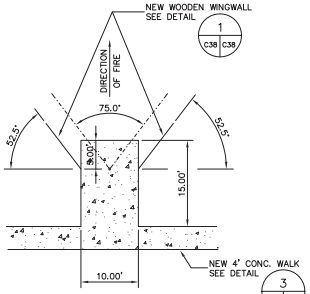
SIDE ELEVATION

FRONT ELEVATION

8' BENCH DETAIL 6 (C30, C38)
SCALE: 1/2" = 1' - 0"
C-33

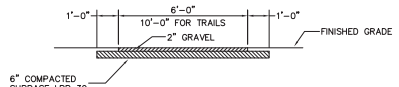


FIXED SHOOTING STAND 4 (C38, C38)
SCALE: 1/2" = 1'-0"



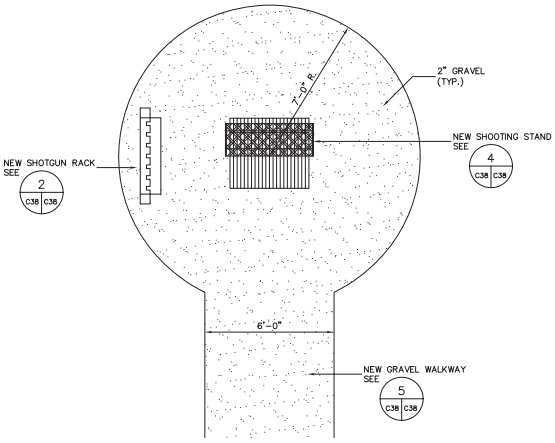
OPTION 'A'

TYPICAL SHOOTING AREA 7 (C38)
SCALE: 1" = 10'



TYPICAL GRADE

WALK CONSTRUCTION 5 (C38, C38)
SCALE: 1" = 5'-0"



OPTION 'B'

TYPICAL SHOOTING STAND 8 (C38)
SCALE: 3/8" = 1'-0"

C38

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CONSULTING ENGINEERS
8296 ARLINGTON EXPRESSWAY
JACKSONVILLE, FLORIDA 32211 (904) 725-7131
DRAWN BY D.E.N. | CHECKED BY C. VARGAS | DATE 5/98 | REG. ENGR. NO. 16297

NRA

NATIONAL RIFLE ASSOCIATION
RANGE DEPARTMENT
FAIRFAX, VIRGINIA 22030

SHOOTING RANGE
DEFINITVE DRAWINGS

SHOTGUN PAD
PLAN AND DETAILS

NO.	REVISION	DATE	BY

SUBMITTED BY _____ DATE _____

C.A.D.D. FILE C-38.DWG
PROJECT NO. 0759
SHEET ____ OF ____

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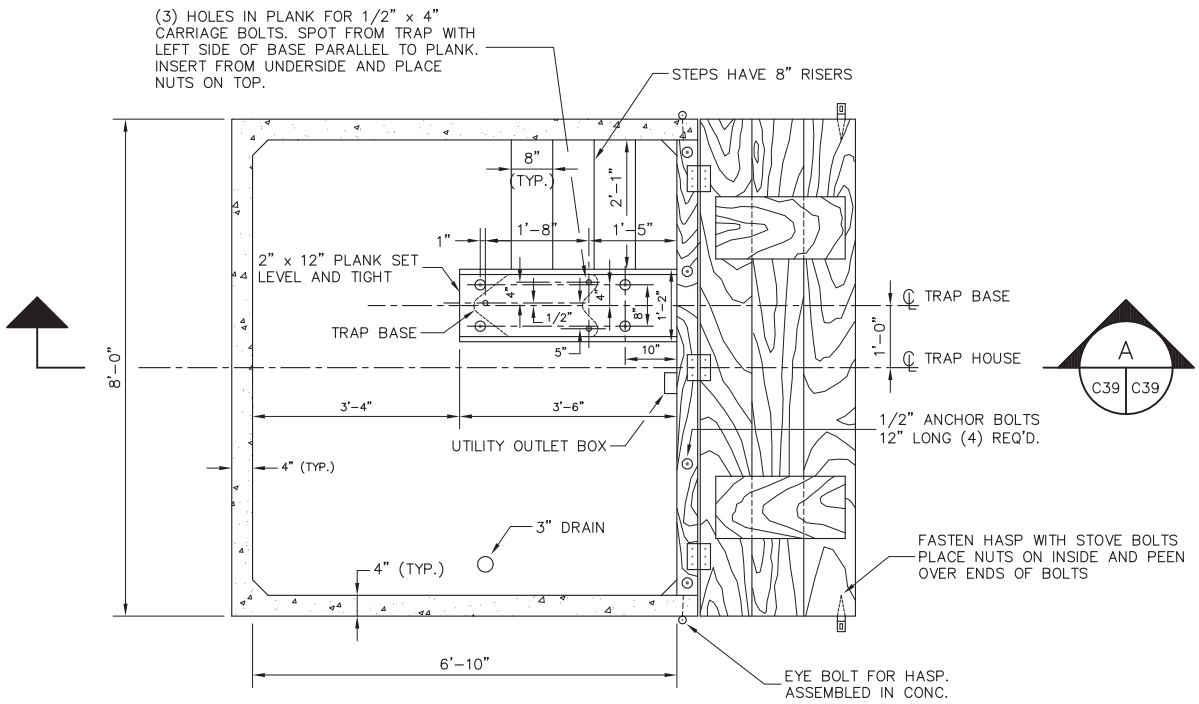
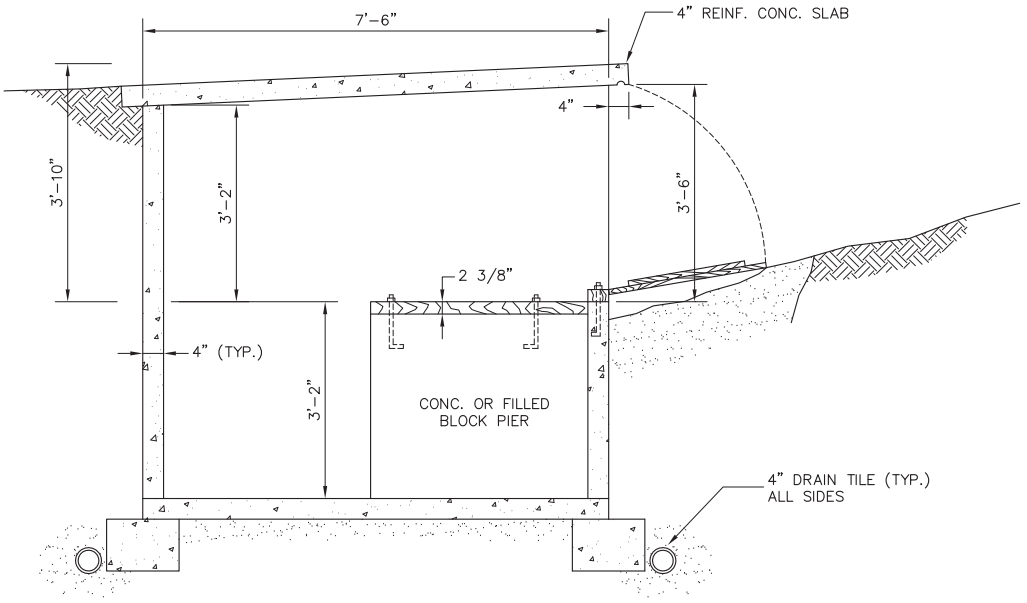
DO NOT SCALE DRAWINGS

PLOT DATE: 5/3/98



PLAN



SECTION A (C39 C39)

AUTOMATIC TRAP HOUSE DETAIL (1 / C39)

SCALE: 1" = 3'-0"

C-30, C-33

NOTES:

1. TRAP BASE MUST BE BOLTED TO PLANK ONLY – NOT TO CONCRETE.
2. THE TRAP HOUSE IS FOR THE WINCHESTER WESTERN V1579B TRAP OR THE V1524A WITH V1580A FACTORY MODIFICATION. PIER CHANGE MAY BE NECESSARY FOR OTHER TRAPS.

C39

NO.	REVISION	DATE	BY

AUTOMATIC TRAP HOUSE

PLAN AND SECTION

NATIONAL RIFLE ASSOCIATION
RANGE DEPARTMENT
FAIRFAX, VIRGINIA 22030

SHOOTING RANGE
DEFINITIVE DRAWINGS

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C.A.D.D FILE C-39.DWG

PROJECT NO. 0759

SHEET ____ OF ____

PLOT DATE: 5/3/98

F:\NRA Range Manual Drawings\C-39.dwg, 01/14/2004 09:54:56 AM, charles, 1:3.09091

National Rifle Association

THE RANGE SOURCE BOOK

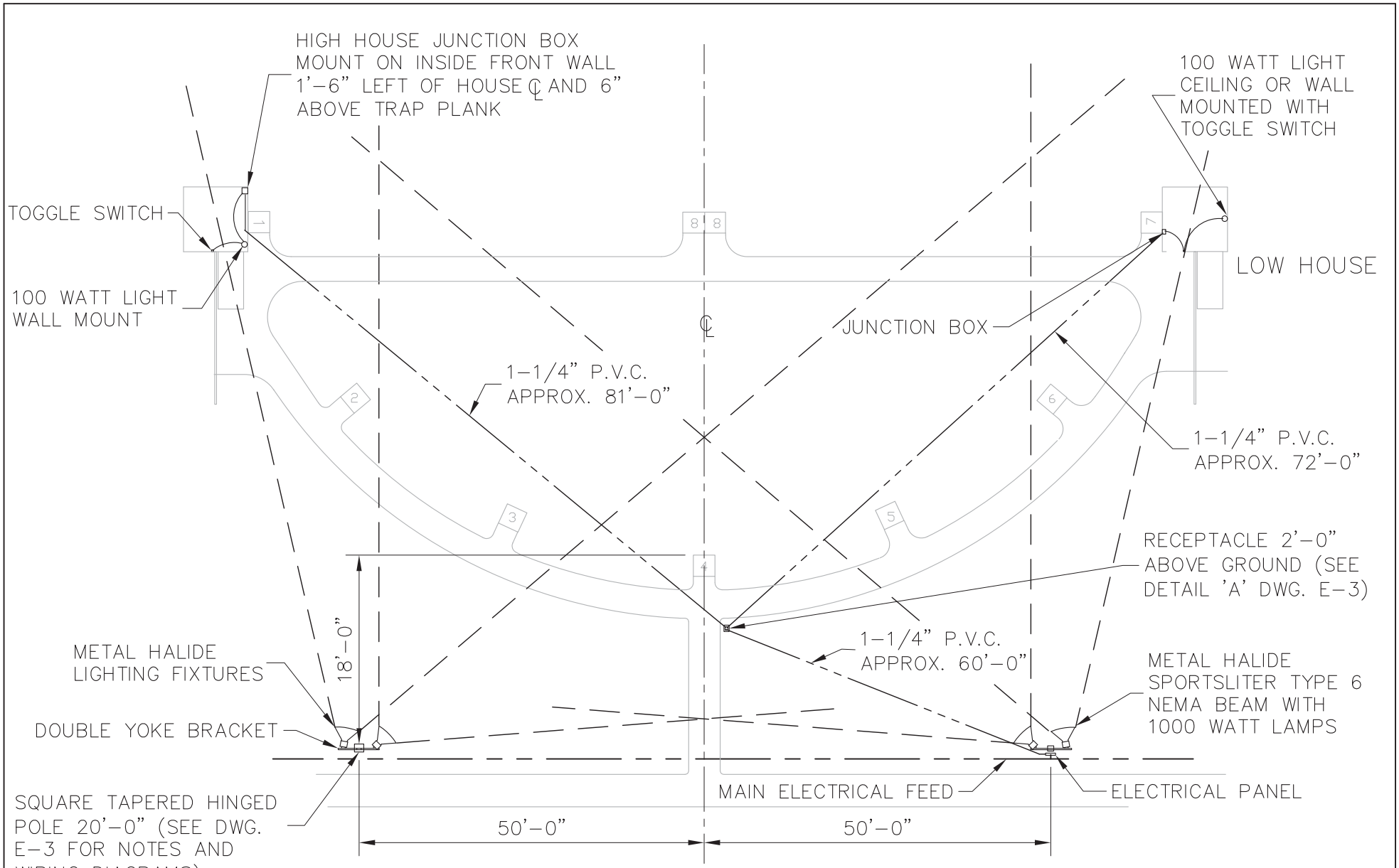
ELECTRICAL DRAWINGS

INDEX TO DRAWINGS

12

ELECTRICAL DRAWINGS

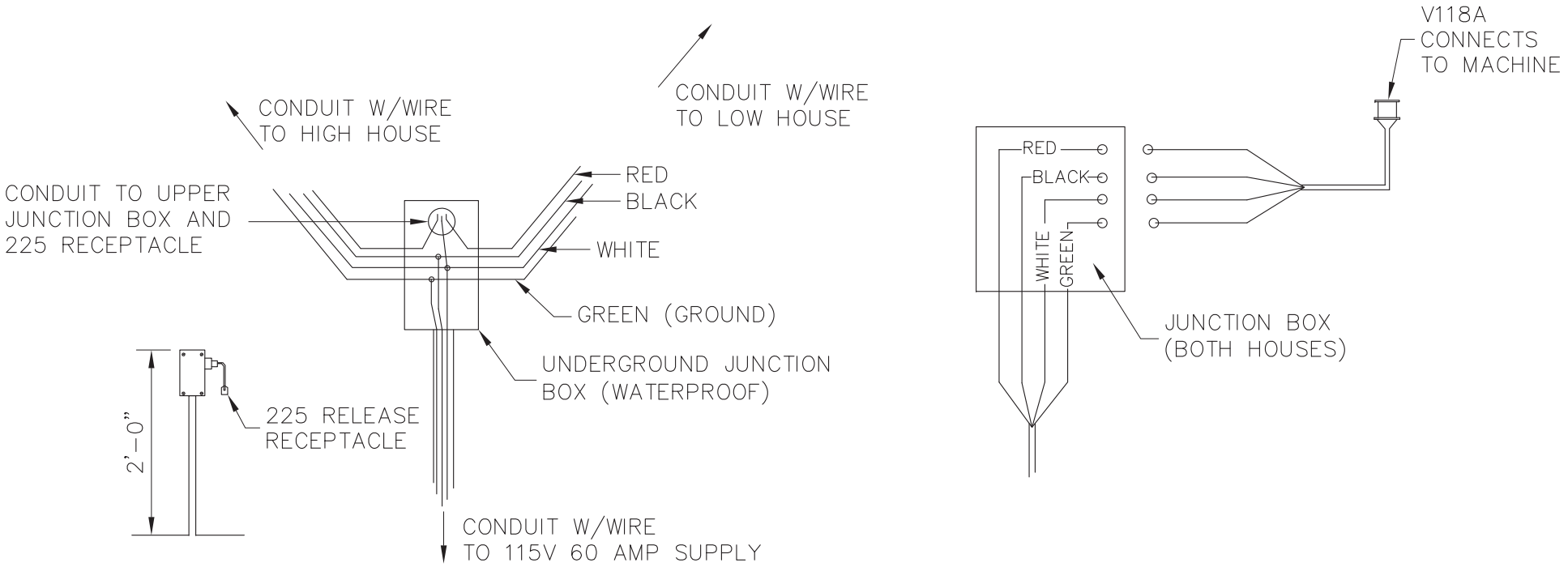
DWG. No.	TITLE
E-1	TYPICAL 1000 YARD RANGE COMMUNICATION LAYOUT PLAN AND DETAILS
E-2	SKEET FIELD LIGHTING
E-3	SKEET FIELD WIRING DIAGRAM
E-4	COMBINATION SKEET AND TRAP FIELD POWER SUPPLY
E-5	TRAP FIELD LIGHTING
E-6	50 YARD RANGE LIGHTING PLAN
E-7	TYPICAL P.P.C. AND T.R.C. RANGE ELECTRICAL PLAN AND SECTION



DRAWING E–2	DES. BY S.B.D.	NRA	SKEET FIELD LIGHTING			
	BY N.R.A.		NATIONAL RIFLE ASSOCIATION RANGE DEPARTMENT FAIRFAX, VIRGINIA 22030			
	DATE 12/87			1	C.A.D.D. COORDINATION	5/98	C.V.
				NO.	REVISION	DATE	BY

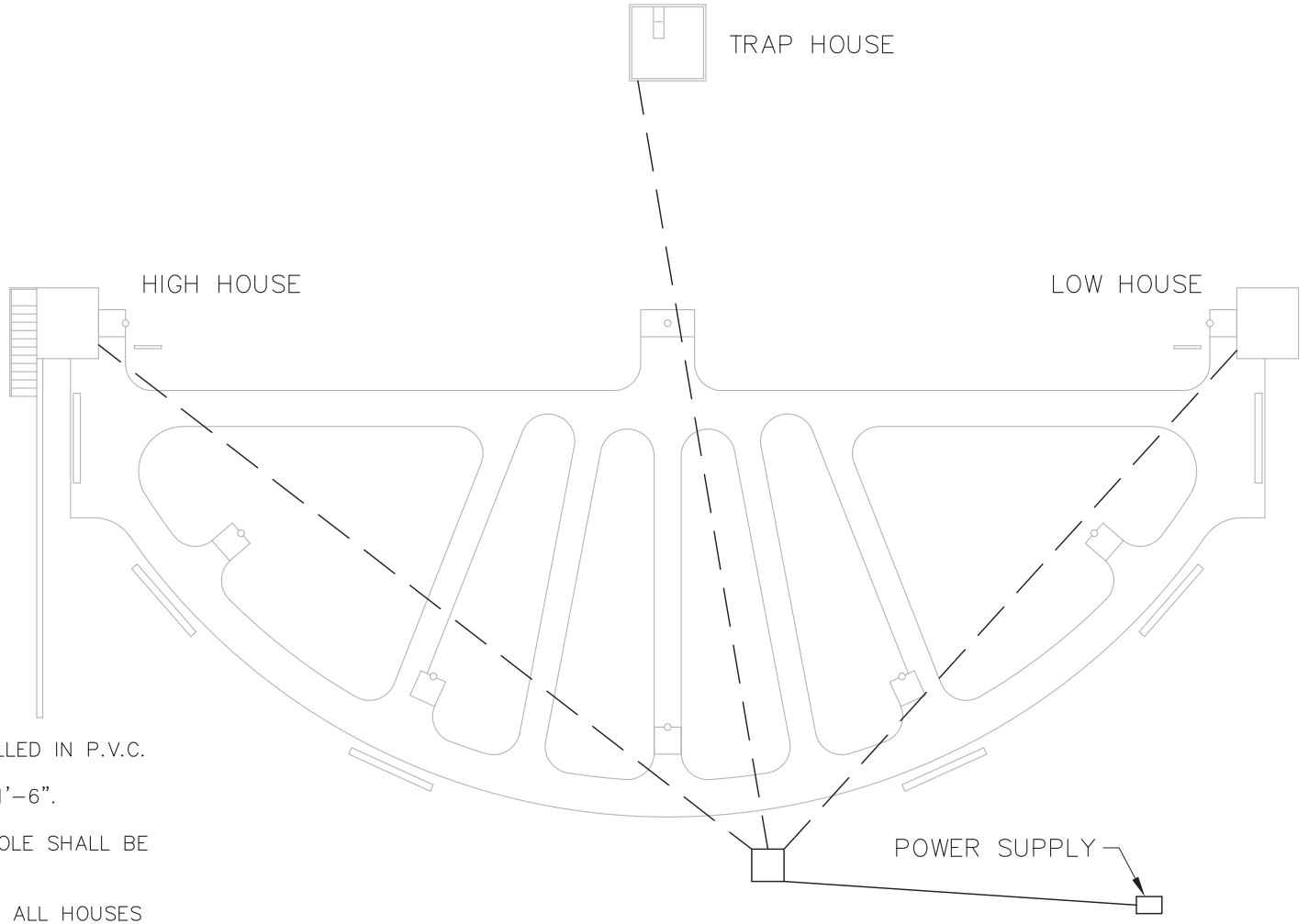
NOTES:

1. INSTALL UNDERGROUND WIRING IN 1–1/4 INCH PVC PIPE.
2. INSTALL 4 #12 WIRE UG ELECTRICAL SUPPLY FROM WP RECEPTACLE TO LOW AND HIGH HOUSES.
3. USE WATER PROOF JUNCTION BOX, SET AT 2'0" ABOVE GROUND
4. INSTALL 4 #12 WIRE UG ELECTRICAL SUPPLY FROM PANEL TO RECEPTACLE.
5. INSTALL PVC PIPE A MINIMUM OF 18 INCHES BELOW GRADE OR ACCORDING TO LOCAL CODE.
6. USE SLG SERIES SPORTLITER W/1000 WATT METAL HALIDE LAMPS.
7. INSTALL 20' 0" SQUARE TAPERED HINGED POLES.
8. HOUSE WIRING TO BE ACCORDING TO CODE.
9. MOUNT LIGHTING FIXTURES ON TENON TYPE BRACKETS; 2 TENONS AT 180 DEGREES.



DETAIL "A" – WIRING DIAGRAM

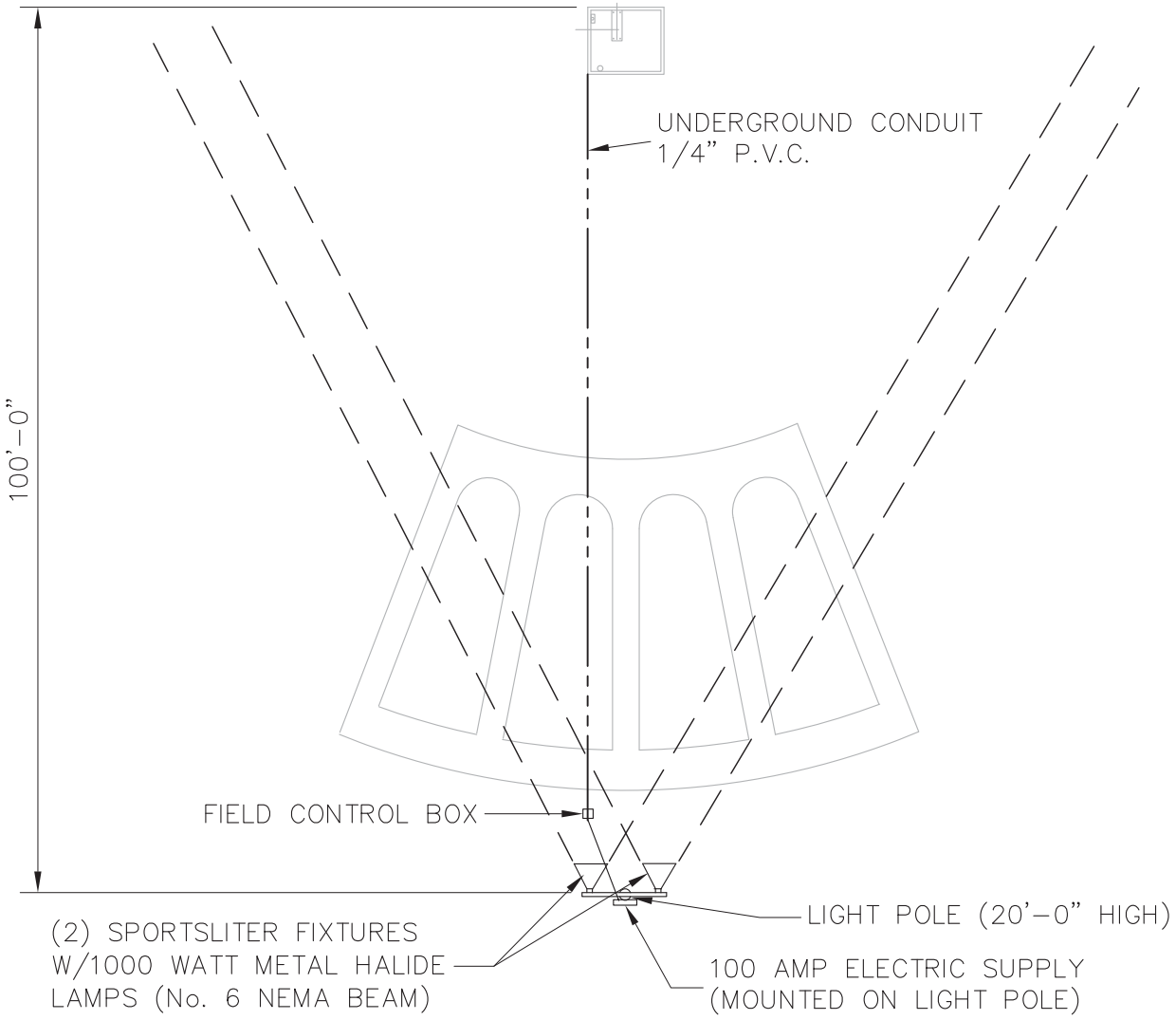
DRAWING E–3	DES. BY S.B.D. BY N.R.A. DATE 12/87	NRA	SKEET FIELD WIRING DIAGRAM NATIONAL RIFLE ASSOCIATION RANGE DEPARTMENT FAIRFAX, VIRGINIA 22030	NO.	REVISION	DATE	BY
				1	C.A.D.D. COORDINATION	5/98	C.V.



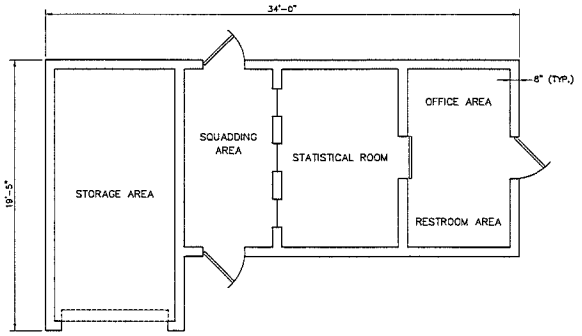
NOTES:

1. ALL WIRING TO BE #10 4 WIRE INSTALLED IN P.V.C.
2. P.V.C. TO BE BURIED A MINIMUM OF 1'–6".
3. POWER SUPPLY LOCATED ON LIGHT POLE SHALL BE 100 AMP MINIMUM.
4. INSTALL 100 WATT LIGHT FIXTURES IN ALL HOUSES WITH TOGGLE SWITCHES.
5. ALL FIXTURES IN HOUSE TO BE WALL MOUNTED.
6. LOCATE CONTROL BOX FOR COMBINATION FIELD BEHIND THE WALL AT STATION 4.
7. APPROXIMATELY 300 FEET OF WIRE IS REQUIRED.

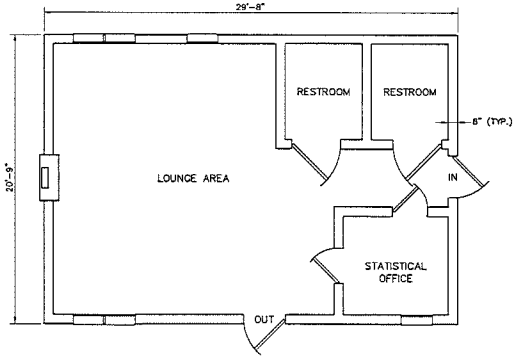
DRAWING	DES. BY		COMBINATION SKEET AND TRAP FIELD POWER SUPPLY			
E–4	S.B.D.	NRA	NATIONAL RIFLE ASSOCIATION			
	BY N.R.A.		RANGE DEPARTMENT	1	C.A.D.D. COORDINATION	5/98	C.V.
	DATE 12/87		FAIRFAX, VIRGINIA 22030	NO.	REVISION	DATE	BY



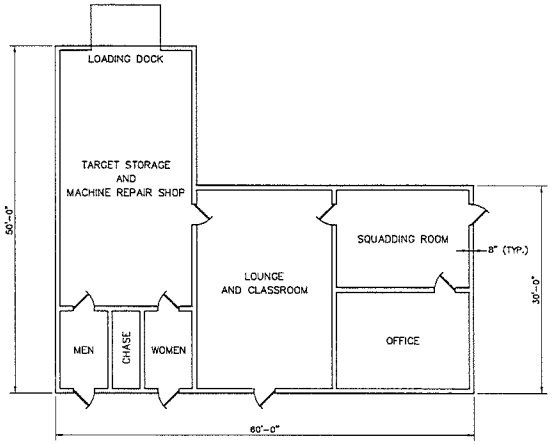
DRAWING E-5	DES. BY S.B.D. BY N.R.A. DATE 12/87	NRA	TRAP FIELD LIGHTING NATIONAL RIFLE ASSOCIATION RANGE DEPARTMENT FAIRFAX, VIRGINIA 22030		
				1	C.A.D.D. COORDINATION 5/98 C.V.
				NO.	REVISION DATE BY



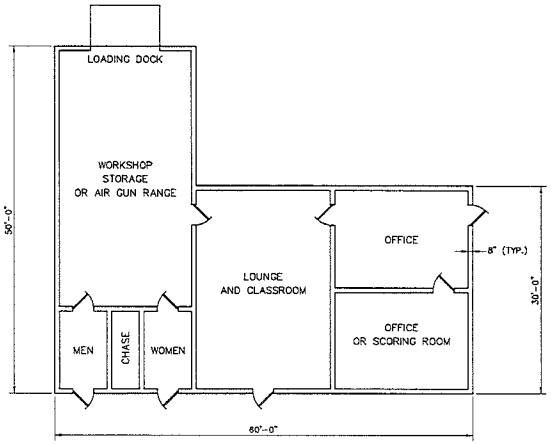
HIGHPOWER RIFLE RANGE BUILDING
TYPCAL FLOOR PLAN
SCALE: 1/4" = 1'-0"



PISTOL RANGE STATISTICAL BUILDING
TYPCAL FLOOR PLAN
SCALE: 1/4" = 1'-0"



TRAP AND SKEET RANGE BUILDING
TYPCAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



TYPCAL RANGE FLOOR PLAN
SCALE: 1/8" = 1'-0"

A-1

PLOT DATE: 5/2/98

NRA

NATIONAL RIFLE ASSOCIATION
RANGE DEPARTMENT
FAIRFAX, VIRGINIA 22030

SHOOTING RANGE
DEFINITIVE DRAWINGS

RANGE BUILDING
TYPICAL FLOOR PLANS

C. VARGAS & ASSOCIATES, LTD.
CONSULTING ENGINEERS
8300 ARLINGTON EXPRESSWAY
JACKSONVILLE, FLORIDA 32211 (904) 721-7731

DRAWN BY: D.E.H. | CHECKED BY: C. VARGAS | DATE: 5/98 | JOB NO. 16297

SUBMITTED BY: _____ DATE: _____

C.A.D.D. FILE: A-1.DWG
PROJECT NO: 0759
SHEET: ____ OF ____

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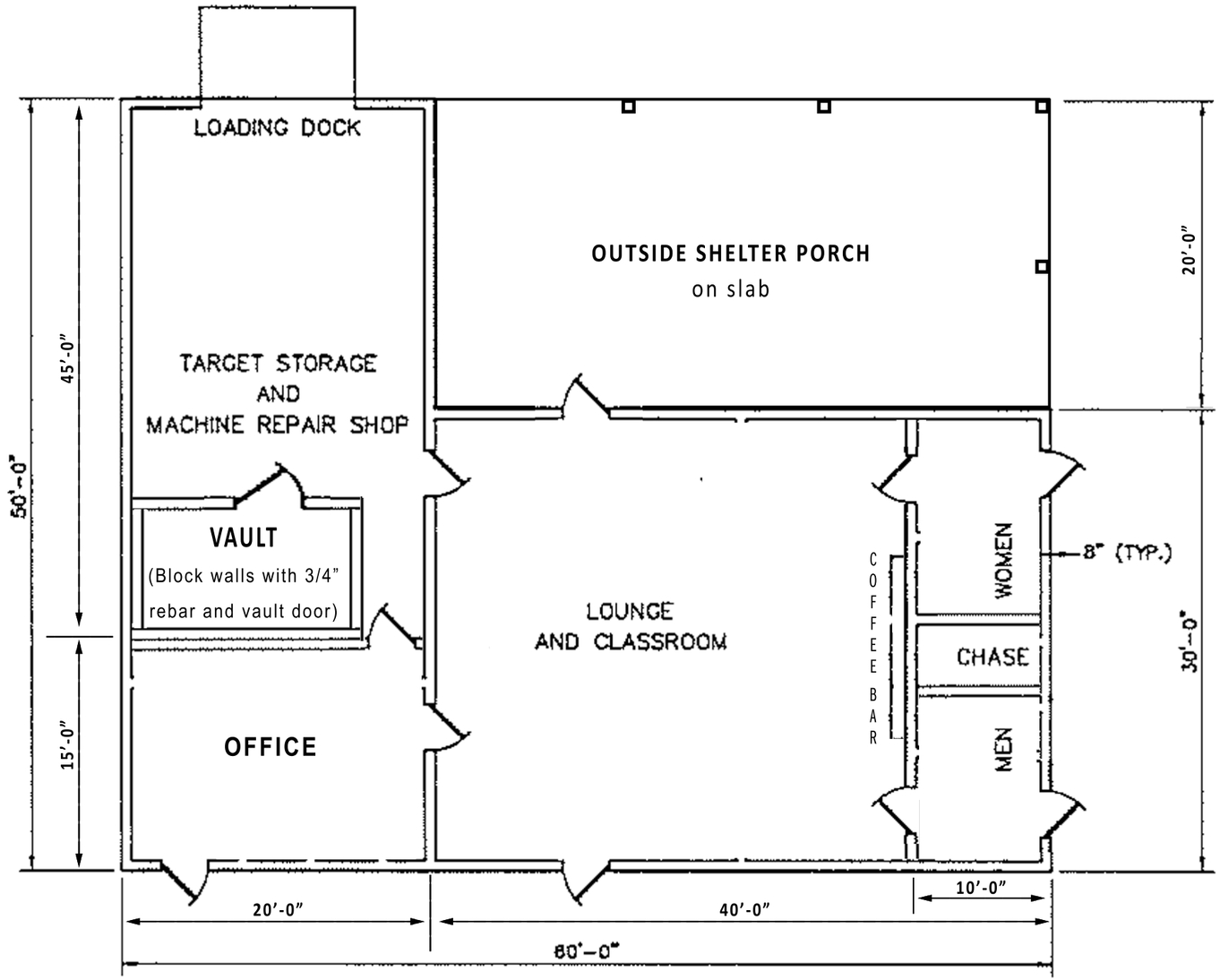
NO.	REVISION	DATE	BY

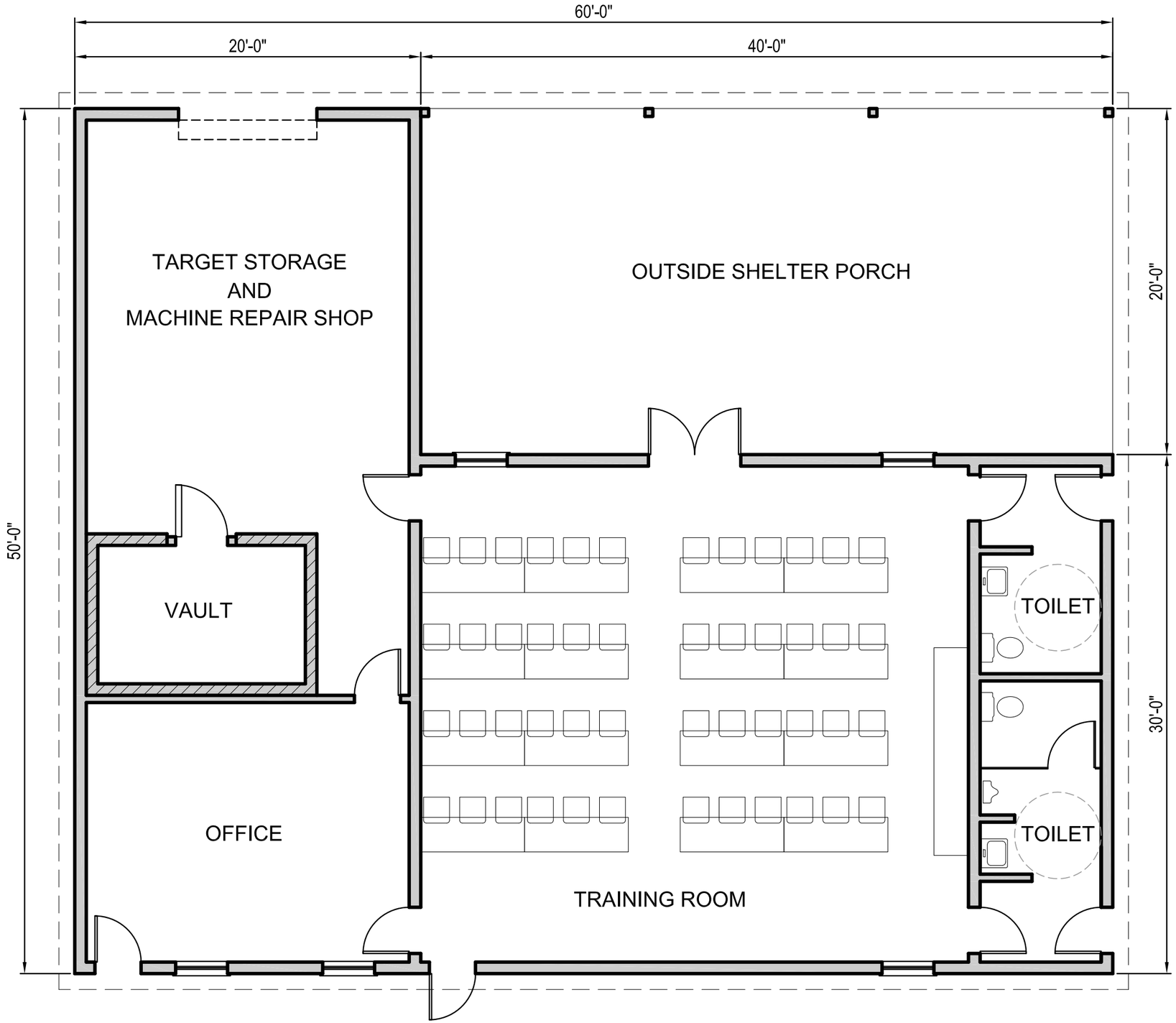
NRA Range Book Shotgun Range Floor Plan - Modified for Sid Richardson Scout Ranch



TRAP AND SKEET RANGE BUILDING

TYPCAL FLOOR PLAN

SCALE: 1/8" = 1'-0"



Sid Richardson Scout Ranch - Trap and Skeet Range Building
2,200 Square Feet (interior)

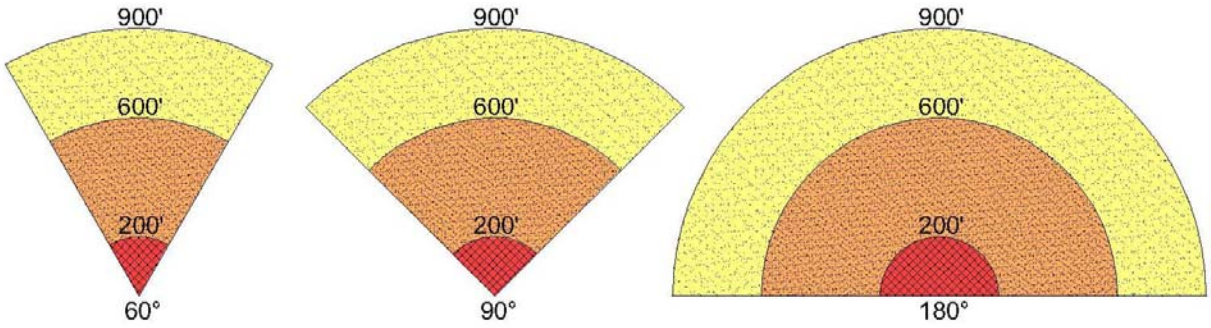
SHOTGUN RANGES

Design Reference for a Shotgun Range Layout

Introduction: This guideline provides information related to the design of shotgun ranges at Boy Scout camps. There are several popular "clay target sports" such as Trap, Skeet, Five Stand, etc., each with its own range requirements. This guideline will focus on range requirements to support the Shotgun Shooting Merit Badge and note some of the differences for other types of clay target sports ranges. It is assumed that all activities will comply with the current version of the *Guide to Safe Scouting*. This generally limits the ranges to the use of 20-, 16- and 12-gauge shotguns firing ammunition containing No. 6 shot or smaller.

Location: The shotgun range is usually located on the outskirts of the camp away from troop sites and other heavily used areas. It is a common practice to locate the shotgun range near other "field sports" facilities such as archery and the rifle ranges. These programs all require large areas and frequently share program staff.

Size and Shape: The shape and size of the range depends on the number of shooters and which clay target sport the range is designed to accommodate. A range designed to meet the basic merit badge with a single trap will server two shooters. This range requires a protected area that extends in a 60 degree arc from the shooting positions. If two traps are used then the arc of the shot fall area is 90 degrees. This arc represents the "shot fall area" and extends 900 feet from the shooters. This may be reduced to 600 feet when ammunition used at the range is limited to No. 8 shot or smaller. A skeet shooting and other "multi-positioned" field sports requires the same 900 foot or 600 foot protected area, but because of the various shooting positions and paths of the targets, this arc covers 180 degrees.



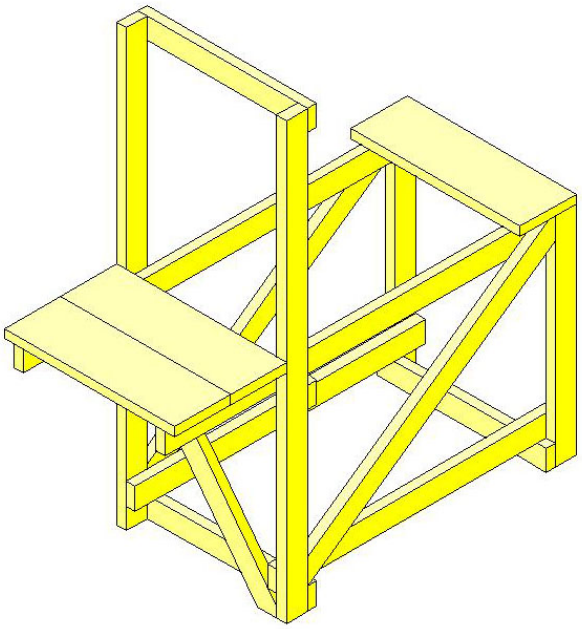
As the illustration above shows, shotgun ranges require a large area. When planning a new camp, the location of ranges should be given early consideration. The 60 degree arc will be the shot fall

area for a single shooter during merit badge instruction. The ninety degree arc would be the shot fall area for two shooters using the same thrower in merit badge instruction. The half-circle shot fall area represents the shot fall area for most competitive shooting. When building a new range or improving an existing range at a camp, careful consideration should be given to the required shot fall areas based on the intended use of the range.

Direction of Fire: Because shooters are firing at aerial targets, the sun can be more of a problem for a shotgun range than a rifle or archery range. A northern or northeasterly orientation is preferred to avoid glare from the sun.

Firing Line: For the basic range with the most narrow (60 degree) arc the trap should be set on the firing line either on the ground or mounted on a sturdy table or stand. Provide one trap to serve one or two shooters. Stands may be provided for shooters to help limit where the shotgun is pointed while shooting. Stands may be necessary for young and inexperienced shooters.

Ready Line: The ready line should be a minimum of 10 feet behind the firing line. Provide benches for waiting groups behind the ready line fence.



FIRING LINE BOOTH (ISOMETRIC)

Fencing and Protection: The area in front of the firing line should be cleared of trees and brush to a distance of 200 feet. This area should be fenced and marked with signs. The remainder of the shot fall area should be marked with warning signs. No camps or activities should be permitted in this area, and protection should be provided by marking the area or fencing where practical. The area between the firing line and the ready line should be fenced with one entrance provided to the rear. The shotgun range will be provided with a flag pole for a range flag.

Storage of Equipment: All guns and ammunition must be kept in separate, locked storage when not in use on the range. Because ranges are typically located on the edge of camp, and away from other activities, the shotguns and ammunition are normally not “permanently stored” at the range. Rather, they are locked up in a suitable facility near the range or at a designated controlled program equipment area at the camp. Temperature and humidity can damage stored firearms. While the range is in operation, during long-term camps or weekend programs, secure storage closets or a room containing gun lockers for separate storage of shotguns and ammunition is recommended.

Other Facilities: As the range is typically located at the edge of camp, there are a few other facilities that are beneficial. A program shelter will provide a shaded area for waiting or instruction. Drinking water and latrines should be convenient to the range as well. Some form of a handwashing station should be provided for shooters. If the shotgun range is located near the archery and rifle ranges many of these facilities may be shared.

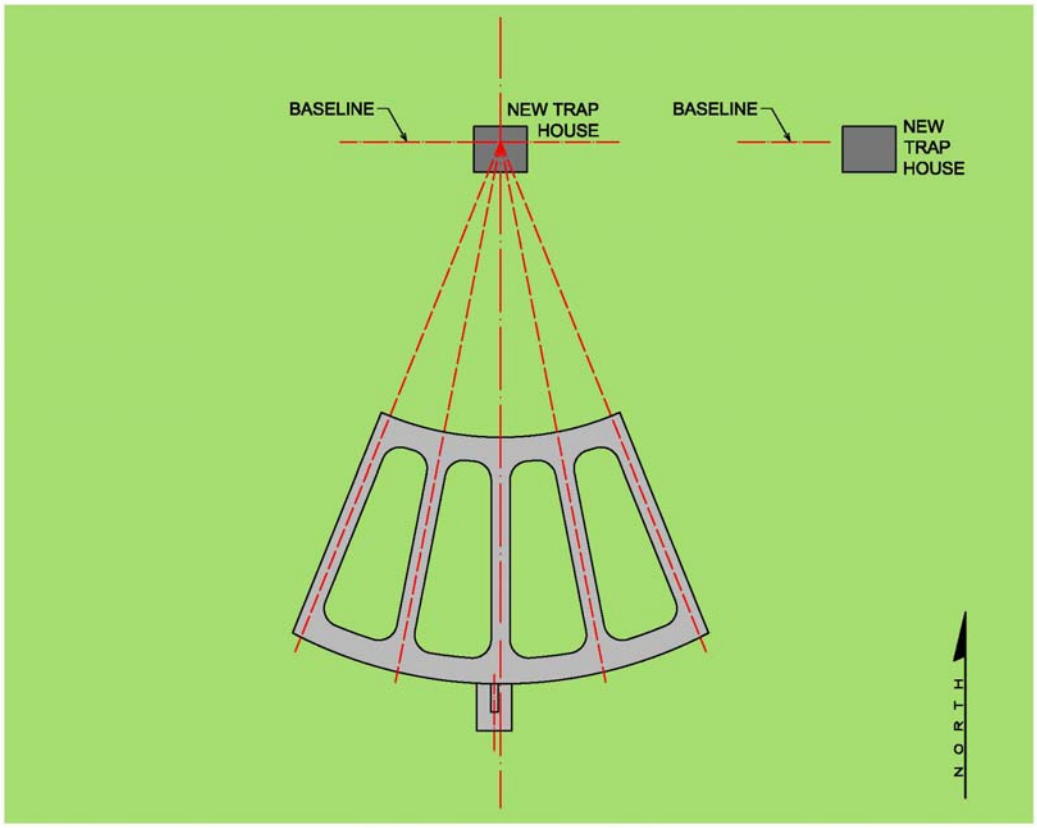
Merit Badge Instructional Layout: The Shotgun Shooting Merit Badge teaches Scouts firearm safety, basic skills and confidence. Scouts qualifying for the merit badge are required to hit 12 of 25 throw targets twice. These targets are to be thrown at a reasonable speed and in the same direction. Because of consistent throws, the 60 degree angle for the shot fall area can be used. Typically a shooting stand is used to position the shooter and limit the traverse of his shotgun while shooting. If multiple shooting positions are used for instruction, then sufficient space must be left for instruction and for throwing or tending the thrower. Typically this can be as much as 20 feet.


TRAP ON TRIPOD

Competitive Shooting: Shotgun shooting has grown quite popular in recent years with a number of exciting competitions. These competitions put shooters in different positions firing at targets thrown from different locations and in different directions. This variation requires a larger angle for the shot fall area and fixed houses for the throwers and paved positions for the shooters. The exact configuration for these ranges may be found in information provided by the NRA or other shooting associations. The following is a brief description of Trap, Skeet and Five Stand competitive shotgun shooting.

Trap Range Layout: For trap range layouts to be consistent with the Amateur Trapshooting Association (ATA), the range shall consist of a single launcher (wobbler type) in a trap house partially buried in the ground with five shooting stations 16 yards (48 feet) behind the trap house. The centerline of the field shall bisect the centerline of the trap house and shooting station three (16 yards directly behind the trap house). The launcher shall release clays at a random angle within a 17.14 degree angle to the right or left of the centerline of the trap house. Using standard clay targets the launcher must have a trajectory of 8 to 10 feet (9'-0" ± 1'-0") above the ground at 10 yards in front of the launcher landing at a minimum of 49 yards to a maximum of 51 yards from the trap house.

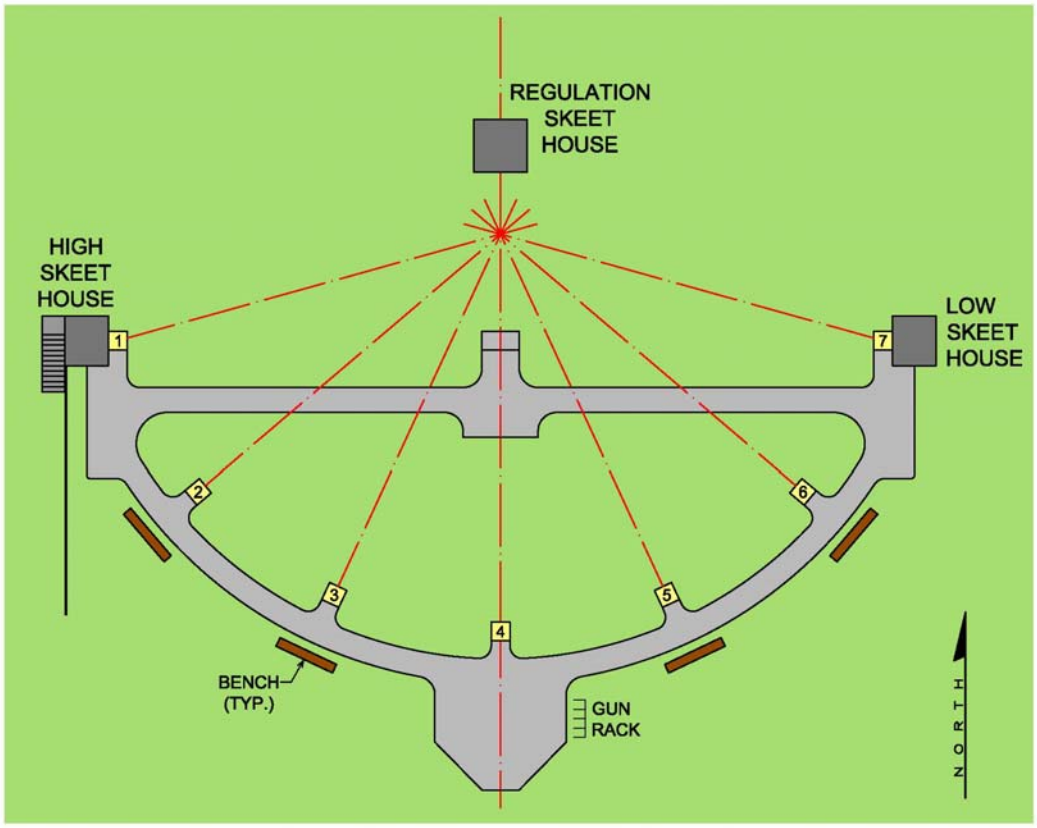
The distance between each station shall follow along the arc of 16 yards distance from the centerline of the back of the trap house at 3-yard intervals. Station lanes shall be marked at each yard from the 16-yard marker to the 27-yard marker.



TRAP FIELD PLAN

Trap Procedures: The traditional game of trap has five shooters at each position with the shooter at station one (far left position when facing the trap house) being the first to shoot. Once station one has expended one shell (two for doubles), the shooter at station two may then call for their clay target. This follows for shooters at stations three, four, and five. After each shooter has expended five shells at their station, each shooter then moves to the station to their right with the station five shooter moving to station one. A single round of trap is complete once a shooter has expended five shells at all five stations for a total of 25 shots.

Skeet Range Layout: Skeet fields are laid out in a semi circle with eight shooting stations and two launchers housed in structures on the right and left sides of the field. The house on the left side of the field facing down range is the high house, while the house on the right side of the field is the low house. The high house launcher must be 10 feet above the ground and at a slight upward angle. The low house launcher must be three feet above the ground at a steeper angle. Clays are set to travel 58 to 68 yards and clear a white stake 10 feet downrange of the center of the semicircle. Stations one through seven follow along the semicircle from left to right when facing downrange. Station one is at the high house, with 26 feet 8 inch intervals between each station, with station seven ending at the low house. Station eight is at the center of the field in line and midway between the two houses. Each station is to be on a 3 foot by 3 foot pad.

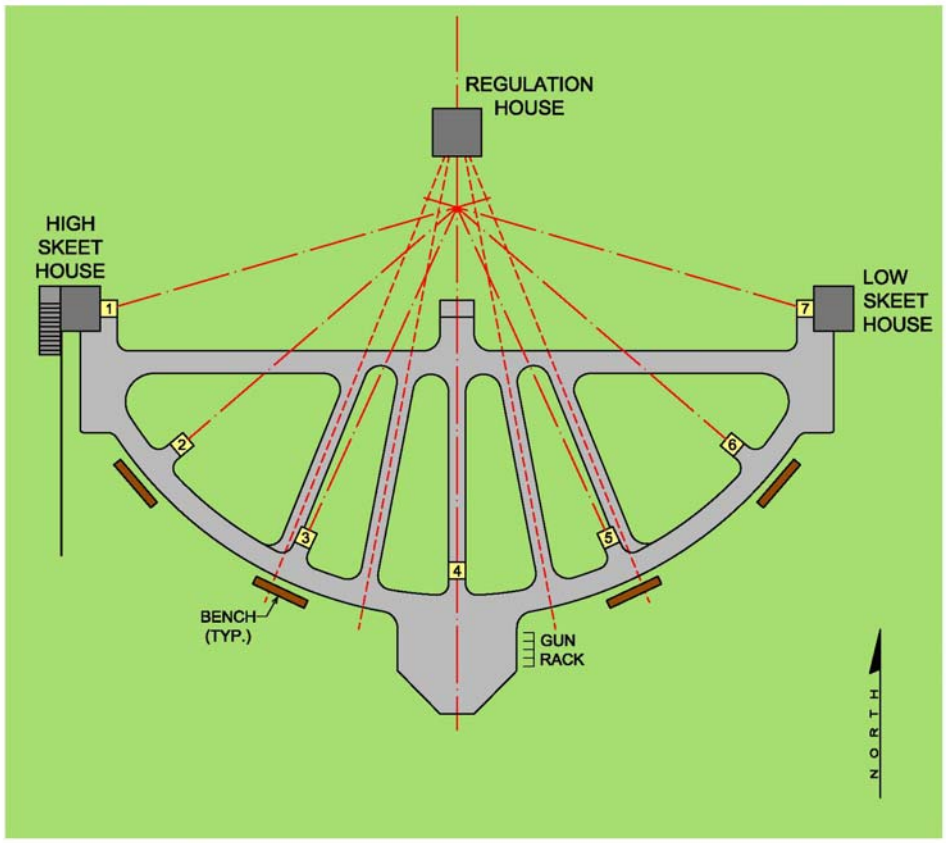


SKEET FIELD PLAN

Skeet

Procedures: Shooters begin at station one firing their allotted shots at each station before moving on to the next station. At stations one, two, six and seven a shooter is presented with four targets. The first is from the high house and then from the low house. After that a pair is presented from the high and low house simultaneously. At stations three, four and five the shooter is presented with only one target from each house, the high house first and then the low house. At station eight the shooter can be presented with a single target from each house or a pair simultaneously.

Combination Trap and Skeet Plan: It is possible to construct one range that will accommodate both Trap and Skeet competitions.



COMBINATION SKEET/TRAP PLAN

Sporting Clays - NSCA 5-Stand Sporting Range Layout: For a range to be sanctioned by National Sporting Clays Association (NSCA) there must be six to eight launchers on the field. The shooting stations are identical to the trap range. One launcher must be on a 40- to 70-foot high tower behind the stations presenting an outbound target. One launcher must be set down range and present an inbound target. One launcher must present a right-to-left crossing target (or quartering away, no restrictions on height of platform). One launcher must present a left-to-right crossing target (or quartering away, no restrictions on height of platform). A rabbit launcher must cross the field at a reasonable speed and presentation. A vertical (teal) launcher must present at a reasonable speed and trajectory. All launchers shall be numbered to determine the order of presentation. Order of presentation may be changed by the range operator.

Sporting Clays - NSCA 5-Stand Sporting Range Procedures: Procedures for shooters at each station are similar to trap procedures, with each shooter being presented with one target at each call and five targets per station. The difference is that up to four shells may be expended on each target. The order shall remain the same for each shooter. With every rotation the order of presentation moves up one station and cycles back to station one after launcher six or eight is presented in the previous rotation.

References:

Shotgun Shooting Merit Badge Pamphlet

Guide to Safe Scouting, No. 34416D

Camp Program & Property Management

The NRA Range Source Book

Appendix I

Emergency Procedures

Sid Richardson Scout Ranch
Emergency Procedures

General Information:

- The camp has three weather radios that are monitored by the Head Ranger, Base Camp Director and Chisholm Trail Adventure Director.

General Alarm

The general emergency alarm is three blast of the camp Siren which can be heard at all campsites

1. Do not panic! Do not use cell phones. Follow instructions below.
2. If in class, scouts will remain in class. If not in class, proceed immediately to troop campsites, or stay in troop campsites.
3. Instructions will be sent via group message to Scoutmasters and SR2 Staff via Group Me Messaging system. The Scoutmaster in charge will follow the instructions given.
4. All Clear will be given over Messaging System
5. Do not respond to messages sent to you unless asked to do so as it will clog up the messaging system.

WEATHER EMERGENCIES

Alerts and Warnings

The camp rangers and management will monitor local and National Weather Service information services during periods where severe weather alert are active.

Extreme Heat and/or Humidity

The camp rangers and management will monitor NOAA's Heat Index chart to ensure campers are safe. All program areas and commissioners will be notified of the index. Physical activity will be limited as necessary. Activity uniforms will be used at all times including supper and campfire until the heat advisory is relaxed.

Small Craft Advisory

In the event of small craft advisory, the Camp Director or Ranger will notify program directors and area directors of procedures.

Thunder Storms

Camp Director will notify Aquatic Programs, Project C.O.P.E and Climbing Tower to suspend programs in the event of thunder for 30 minutes. Campers and staff will seek the nearest appropriate shelter in the event of a thunderstorm

Hail

In the event of hail, staff and campers must take cover in the best protected shelter close to their location.

High Winds

In the event of high winds or a high wind warning, staff and campers must take cover in the best protected shelter close to their location

Tornado Watch

Camp staff will be notified of tornado watches by the activation of the General Alarm

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Tornado Warning

When a Tornado Warning has been issued by the National Weather Service, the Camp Siren will be activated and remain active until the threat has passed.

1. All scouts and scouters should move from the campsite and to a depression, ditch, or ravine previously selected. The depression, ditch or ravine should be at right angles to the tornados path.
2. Do not attempt to gather in the dining hall, Administration building or any other building or shelter. You will be much safer in an open ditch.
3. Do not call the local weather station except to actually report a tornado as you might be tying up important phone lines needed for an emergency.
4. If you have a radio keep it tuned to the local weather station.

Lost or Missing Persons

1. Notify camp director on where the lost scout was last seen.
2. Camp staff will do a radio check of all camp areas.
3. If boy not found, general alarm will be sounded. All scouts are to report to their troop campsite.
4. Troops will verify all boys accounted for.
5. Camp staff will perform a physical search of camp
6. Call local Sheriff's Department and ask for a lost Scout bulletin for the road, highway and local area search.

Lightning

In the event of a lightning storm or any storm accompanied by the potential of lightning, care should be taken to prevent injury, and implement actions to actively decrease the chances of being struck (for example, never stand under trees or tall structures out in the open during a storm with potential lightening.)

The Camp Director and Ranger will monitor weather issues and notify the pool, waterfront climbing and shooting sports areas to close at the first signs of approaching storms with potential lightning.

If lightning is in the area, move under a pavilion or closest indoor facility.

Fire

Know and use the camp fireguard plan and unit fireguard chart. These will be explained to you in detail at the leaders' meeting on Sunday evening. General rules for handling and reporting a fire:

1. Notify the Camp Director and Camp Ranger immediately giving the exact location of the fire.
2. Follow "Emergency Plan Flow Chart" of responsibilities
3. If Evacuation is necessary, the general alarm will be activated and All Units, will be notified to assemble at the central flag pole.

***Note: All Leaders must have their unit roster with them at the flag pole. When all Scouts/Scouters have been accounted for, camp will be led in an organized fashion to evacuation route.**

Flood/Hurricane

While the potential of high water/flooding in SR2 is remote, care should be taken when establishing campsites (Campsites with potential of flooding include Mohave, Mescalero, Wichita, Owl and Bear) A small amount of rainfall on the camp might be just the fringe of an area receiving a large downpour. Consequently, camping in low areas may be susceptible to flash flooding. Consequently, in the event of extremely wet or turbulent weather, you must observe the following guidelines:

1. Always camp on the highest ground available within the established camping area.
2. Secure all canoes, boats and equipment against possible high water.
3. At the first sign of rapidly rising water, move to the highest ground possible. If necessary leave equipment in place.
4. The Camp Director will monitor local radio stations for weather reports, and keep Troop leaders and staff members advised.

Serious Accident or Illness

1. Send someone to closest staff member who will contact Health Officer
2. Care for injured person until help arrives and you are relieved
3. Camp Director will alert local hospital
4. Camp Director or designated staffer will arrange transportation to hospital

The Camp director will do the following

1. Get the Incident Reporting Kit and gather the following information.
   a. Who - name of subject and age
   b. When – date and time of day.
   c. Where - location
   d. What - nature of accident or illness
   e. How - if known (i.e. swimming, boating, hiking, etc.)
2. Accurate facts must be gathered immediately and forwarded to the Scout Executive.
3. Contact Authorities
4. Notify Parents
5. Contact family physician
6. Provide transportation for parents if necessary

Waterfront Drowning or Potential Drowning

The staff member in charge will immediately radio the health Officer. If you are in the waterfront area in a canoe or rowboat, follow staff member directions. STAY AWAY FROM ANY RESCUE OPERATION UNLESS SPECIFICALLY INSTRUCTED TO PARTICIPATE BY THE STAFF MEMBER IN CHARGE.

First Aid

The Health Lodge is located across from the Camp Office. A Medic is on-duty and responsible to handle all medical emergencies. All cases where a doctor's care is necessary will be immediately reported to the Camp Director and Program Director.

Snakebite. Venomous snakes are customary at SR2, and common sense will prevent any encounters with them.

1. Stay on designated roads and trails.
2. Stay out of high grass areas, especially around the water.
3. Look for snakes before moving large rocks or logs.
4. If a snake bite occurs:
   a. Place a constriction band 2-3 inches above the bite: Just enough pressure to slow venomous blood. Constriction should be between wound and heart.
   b. Calm victim; no walking or other activity.
   c. CALL OR GO FOR HELP

Remember: No Cutting; No Sucking the wound; No Tourniquet

Early departure from camp

1. All person arriving at camp must check in at the Camp office and inform the camp director in accordance with Texas law.
2. Persons coming to pick up a youth must be a parent or provide a signed release form on file with the camp director and shall show their Texas Driver's License.
3. The camp Director will contact the unit leader to confirm youth is to be released.