

ENVIRONMENTAL ASSESSMENT

Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma

Prepared for:



OKLAHOMA DEPARTMENT OF
VETERANS AFFAIRS

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A handwritten signature in black ink that reads 'Steven R. Votaw'.

Steven R. Votaw
President

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1.0 INTRODUCTION

The Oklahoma Department of Veterans Affairs (ODVA) proposes to construct a new State Veterans Center in cooperation with the United States Department of Veterans Affairs (USVA) south of Sallisaw, Sequoyah County, Oklahoma. Eagle Environmental Consulting, Inc. (EEC) has prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC] §§ 4321-4347), the President’s Council on Environmental Quality (CEQ) NEPA Implementing Regulations (Title 40 of the Code of Federal Regulations [CFR] §§ 1500-1508), Veterans Affairs’ NEPA regulations titled “Environmental Effects of the Department of Veterans Affairs Actions” (38 CFR Part 26), and Veterans Affairs’ NEPA Interim Guidance for Projects (VA 2010). This EA incorporates the assessment that has been prepared for the United States and Oklahoma Departments of Veterans Affairs. The proposed action is situated on approximately 40 acres of property and includes both terrestrial and aquatic areas. The general project area is identified on **Figure 1** and located on the United States Geological Survey (USGS) Sallisaw, OK 7.5-minute topographic map. The proposed action area is shown on **Figure 2**. Representative photos of the proposed action area are provided in **Appendix A**.

On June 21, 2019, comment request letters were mailed to appropriate state and federal regulatory/resource agencies and native American tribes to identify and comment on environmental and socioeconomic issues that should be considered as part of this assessment. The letters are provided in **Appendix B**. Agency names and tribal nations contacted along with their respective project-related comments are summarized in **Table 8** of **Section 5.0** of this document.



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1.1 Project Background

In July 2018, the ODVA announced a request for proposal (RFP) for possible sites for the relocation of the Oklahoma Veterans Center located in Talihina, Oklahoma. The Cities of Holdenville, Hugo, McAlester, Muskogee, Poteau and Sallisaw submitted proposals to host the newest veterans center. The Oklahoma Veterans Commission selected the Sallisaw location for the new Veterans Center based on them receiving the highest cumulative score from the evaluation criteria as outlined in the RFP. The selected property and NEPA study area are shown on *Figure 2*.

1.2 Purpose and Need

The purpose of the proposed action is to construct a new veterans center. The new center is needed to replace the aging and poorly-located Veterans Home in Talihina, Oklahoma. The Talihina facility is one of seven licensed nursing facilities owned and operated by the Oklahoma Department of Veterans Affairs pursuant to the United States Department of Veterans Affairs (USDVA) State Veterans Home program. The Oklahoma Veterans Center in Talihina is located in Latimer County, Oklahoma and is situated on approximately 640 acres at the western edge of the Ouachita National Forrest. The campus was originally constructed to serve as a tuberculosis sanatorium. The facility was transferred to the War Veterans Commission in 1975 and has served as a nursing center and state veteran's home since that time. The USDVA certified 175 beds at Talihina; however, due to mold and other operational and facility-based considerations, 48 beds have been out of use since 2017. The Talihina facility is over 60 years old and the location of the facility is in a very rural part of Oklahoma that inhibits the ability to attract and retain the necessary and appropriate staff.

The proposals received were evaluated based on the following criteria:

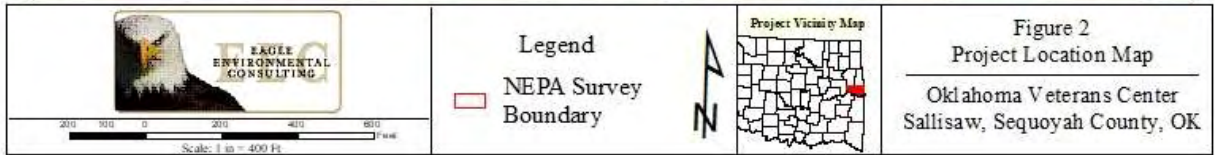
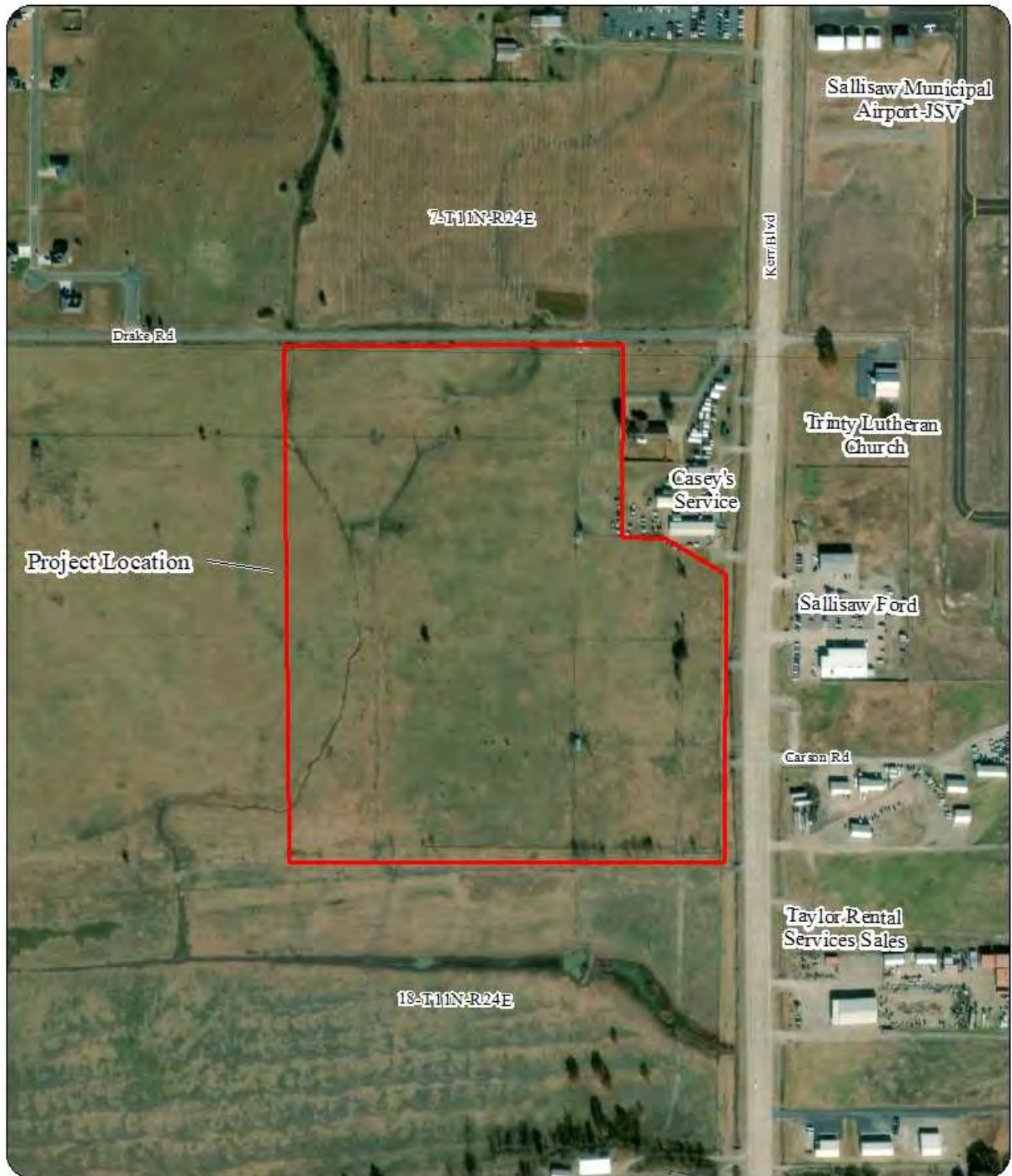
- Availability of workforce and support services in the locality (or commutable distance).
- Characteristics, suitability, and location of the proposed property and structures (if any).
- General economic indicators of the community and surrounding area.
- Continuity of operations during transition and transfer of operations.
- Price.

Moving the facility to Sallisaw, which is more centrally located, is expected to encourage improved staff retention, improved access for family/visitors, and serviceability to the proposed new facility. Additionally, the availability of a skilled workforce in the surrounding Sallisaw area was needed to provide the proposed new center with skilled professionals for patients.

2.0 Alternative Facility Locations Considered

As discussed in Section 1.1, six cities in Oklahoma submitted plans to host the proposed VA center and included Holdenville, Hugo, McAlester, Muskogee, Poteau and Sallisaw. The final selection list for the proposed new Veterans Home was narrowed to Muskogee, Poteau, and Sallisaw. Based on the evaluation criteria used to evaluate each proposal received, the City of Sallisaw was selected as the location for the new Oklahoma Veterans Center.

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2.1 No-Action Alternative

The National Environmental Policy Act (NEPA) and the (CEQ) provided regulations on the implementation of NEPA and require consideration and analysis of the No Action Alternative (NAA). Under the “No Action” alternative, the existing Talihina facility would continue to operate under its current conditions that include an aged facility and the inability to maintain skilled nursing staff in a rural Oklahoma community. The no action alternative does not adequately meet the purpose or need for the new facility goals or veteran service requirements. Although the No-Action would not satisfy the purpose or and need for the proposed action, this alternative is included in the assessment to provide a comparative and reference baseline relative to the potential effects of the proposed action. The No-Action Alternative is synonymous with no change to the existing environment.

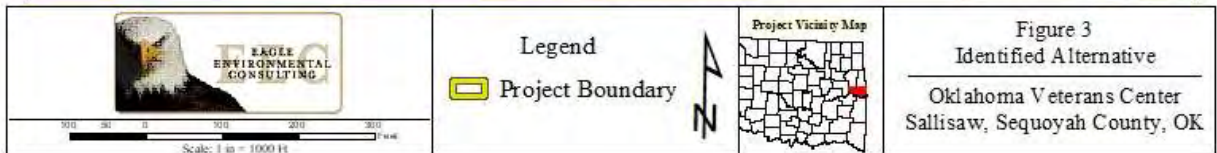
2.2 Alternative Identified but not Further Considered

This alternative was developed and considered as part of the conceptual design study of the proposed Oklahoma Veterans Center facility. The conceptual design included the same design and location criteria considerations as the Proposed Action Alternative (PAA) but was not selected from a functional use standpoint based on the non-selection rationale described below:

- Two story building with smaller footprint (90 resident rooms on each floor)
- Require a high construction type (all rated construction)
- Multiple floors are not ideal for skilled nursing due to heavy reliance on elevators
- Would result in more overall building area due to need for elevators, stairways and
- Duplicative facility feature functions required to be constructed on the two-story facility

The alternative did not meet the proposed action purpose and need or provide sufficient rooms or space to house the expected number of veteran’s required for the future facility. Further, additional infrastructure would be required as well as development of duplicative support/service features within the same facility. Therefore, this alternative will not be carried forward in the environmental evaluation. The conceptual design and overall facility layout for this identified alternative is provided at **Figure 3**.

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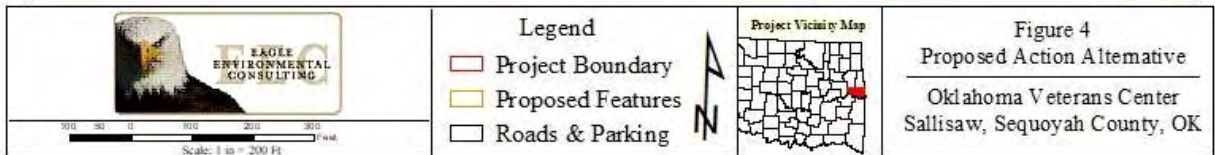
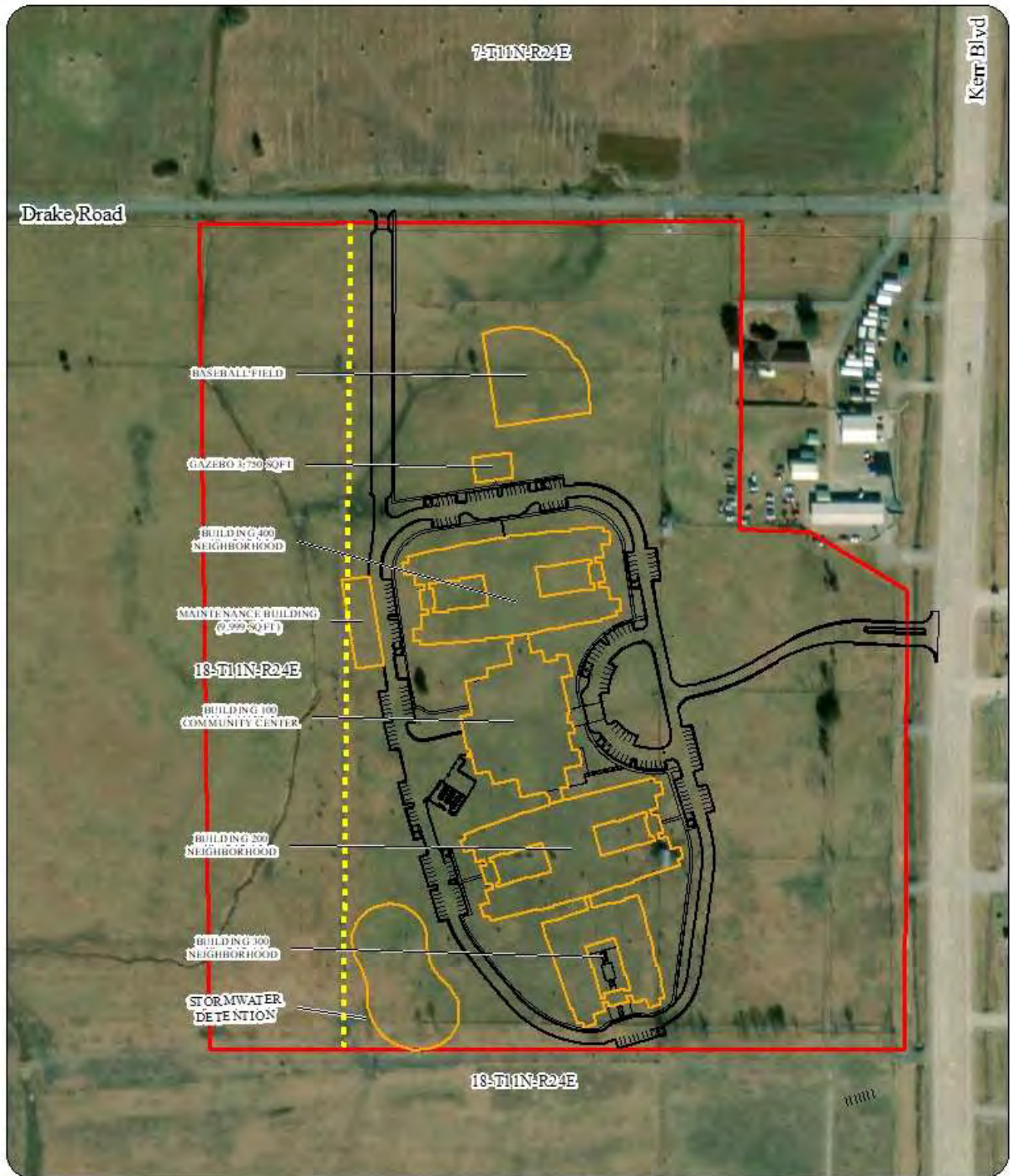
2.3 Action Alternative - Proposed Action Alternative (PAA)

The proposed action alternative (PAA) best meets the proposed actions purpose and need. Construction of the proposed action in Sallisaw best meets the criteria set forth by the Oklahoma Department of Veterans Affairs for a new location in Oklahoma for the new facility. This proposed action would meet the following needs toward providing:

- Increased availability of support services and skilled nursing home workforce professionals.
- Improved skilled-staff retention.
- Continuity of operations during transition and transfer of operations.
- Situated in a city with established economic growth.
- Availability of all types of emergency services; fire, police, ambulance, public tornado shelters.
- Sufficient lodging for visitors.
- Proximity to Interstate highways and airports to support family transportation, and improved accessibility for facility goods and services suppliers.

The new State of Oklahoma Veterans Center will be approximately 200,000 square feet in size and provide 180 private resident rooms configured into ten 18-room households. Each household wing will be interconnected with the central community center building. A curving connector road has been incorporated into the design and will serve as a “Main Street” for the entire community. The community center building will house all the central administrative, food preparation, laundry, public gathering, therapy, wellness and support functions for the entire building. The main street connector will link four households north of the community center and six households south of the connector. Each household will contain private resident rooms, living, dining, lounge and activity space for the household’s residents. Two households are laid out to surround a secured courtyard for the residents. A looping corridor configuration allows residents access between households when inclement weather prohibits exterior areas. A baseball field and garden areas are also included in this design. The prominent features are identified on the PAA site plan design as shown on *Figure 4*.

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Proposed Oklahoma Veterans Center Project
Sallisaw, Sequoyah County, Oklahoma

Eagle Environmental Consulting, Inc.
January 2020

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3.0 AFFECTED ENVIRONMENT and ENVIRONMENTAL CONSEQUENCES

This section presents the general description of the conditions and resources relevant to the proposed action area. Existing conditions of the proposed action area within the approximate 40-acre study area are described below associated with the relevant public interest review factors. This section also presents an analysis of the potential environmental consequences under the NAA and PAA with respect to the identified public interest review factors. No detailed discussions relative to the Identified Alternative but not Considered Further are included.

3.1 Land Use

Land use refers to the purpose and current usage activity a given parcel provides or supports whether undeveloped, residential, commercial, recreational, industrial, agricultural, or no obvious utilization. The following provides perspective on the natural features associated with the general project area and is used as a comparative basis to describe the current conditions/features of the action area.

Ecoregion

The action area is located in the Arkansas Valley Plains ecoregion (37d) and is underlain by Pennsylvanian-age shale, sandstone, and coal. It was once covered by a distinctive mosaic of savanna, woodland, forest, and prairie. Prairie was most extensive on fire-prone sites with moisture deficient soils derived from shale. Today, its undulating plains are mostly pastureland or hay land, whereas its scattered hills and ridges remain wooded; cropland is much less extensive than in the Arkansas River Floodplain (37b), and wooded areas are less extensive than in Ecoregions 36, 37a, and 38. Poultry farming and surface coal mining are other important land uses. Some of the larger streams in Ecoregion 37d still possess sufficient habitat and water quality to support exceptional assemblages of aquatic fauna. Flow in the Poteau River system varies widely; during droughts, tributaries stop or nearly stop flowing, but after heavy precipitation, both flow and turbidity increase, and flooding commonly occurs.

Physiography

Undulating plains interrupted by scattered hills, and ridges in the Arkoma Basin. Streams have long, wide, deep pools that are occasionally interrupted by short, high gradient riffles. Riffles generally have gravel substrates. During protracted droughts and during most summers, streams typically have little or no flow. In streams that cease flowing, pool areas may be 0.4 miles long and over 10 feet deep.

Geology

Mantled by Quaternary alluvium, terrace deposits, and sandy loam to silty clay loam decomposition residuum (containing sandstone fragments and shale chips). The area is mostly underlain by Pennsylvanian-age shale and sandstone with intermixed coal seams.

Vegetation

The natural vegetation types include cross timbers, oak–hickory–shortleaf pine forest, and mosaic of tall grass prairie dominated by big bluestem, little bluestem, switchgrass, and Indiangrass, and oak–hickory forest. Native on fire-prone plains with moisture deficient soils: scattered prairies with a few large oaks. Wetland areas are present in upland depressions and on flats with impermeable, clay-rich soils or pans. Lush deciduous forests are native along streams. The undulating upland areas also exhibit extensive savanna and woodland composed of post oak, blackjack oak, southern red oak, hickory, and understory grasses are native. The rugged areas more are dominated by post oak, black oak, white oak, hickories, maple, beech, elm, shortleaf pine, planted loblolly pine, and increasingly, eastern redcedar occur. Floodplains forests generally contain eastern cottonwood, sycamore, southern red oak, green ash, hackberry, pecan, sweetgum, black willow, willow oak, white oak, and water oak.

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Land Cover and Land Use

Since a large portion of this ecoregion has been converted to agriculture, the wooded areas are largely restricted to riparian areas, poorly-drained sites, and steepest slopes. Pastureland and hay land are extensive but cropland is limited. Poultry and livestock farming are important land uses. Soybeans, grain sorghum, wheat, and limited amounts of corn are typically the most frequently planted crops. Natural gas production, logging, and surface coal mining occur.

Action Area Land Use and Condition

The action area is currently described as primarily open field area used for livestock grazing and most accurately described as non-cultivated agriculture use. The action area exhibits relative flat topography. The vegetative community is described as improved pasture and not native range. The water features identified are not typical of undisturbed natural flowing systems. Effectively all of the identified aquatic resources have been anthropogenically modified or are currently affected by livestock and none are considered pristine. No prominent physiographic features are present. The area has been cross-fenced to provide smaller contained pastures for livestock separation purposes. No other land use was observed or identified. The area may also be mowed and/or treated with herbicide to reduce woody vegetation colonization or regeneration. Land use of the properties situated north, west, and south of the project area is described as agriculture livestock grazing. No cultivated crop areas are present. Land use to the east consists of the right-of-way for Highway 59 and business enterprises either side of US Highway 59 as identified on *Figure 2* above.

Environmental Consequences

The construction/grading plan will be performed in accordance with standard engineering guidelines and practices. Construction would require removal of existing herbaceous and woody vegetation and grading of the existing landscape to match the design features. The PAA would result in the direct and permanent impacts to approximately 17 acres of existing property and its associated habitats. The landscape of the proposed action would be altered by clearing/grubbing, grading, and fill associated with project construction. The construction/grading plan will be performed in accordance with standard engineering guidelines and practices. Temporary impacts are also expected in areas surrounding the construction site. However, these areas would be restored and revegetated upon project completion. Other areas not affected by permanent buildings, parking areas, roads, detention basin, baseball field or entrance areas may also be affected. These areas would include the landscape and lawn areas. Direct impacts are expected in these areas as well and would not be returned to native vegetation. The proposed project would preclude the future previous land use of livestock grazing. All temporarily disturbed areas will be restored and revegetated upon project completion. Since no other development tangential to the proposed project design is anticipated, no cumulative impact to aquatic resources, existing habitats, topography, physiography, geological features, or soils are anticipated. A stormwater management plan will be prepared and implemented to minimize runoff to the greatest extent practicable during construction.

The NAA would result in no development at this property. None of the facilities contemplated under PAA would be constructed and environmental conditions would remain unchanged.

3.2 Social and Economic Conditions

The U.S. Census Bureau Website was used to identify the social and economic characteristics at the county level. *Table 1* summarizes the 2013-2017 census estimates for socioeconomic information for Sequoyah County, Oklahoma. An estimated 41,364 people live in Sequoyah County. Ethnic diversity estimates predominantly consisted of about 65% white, 2.0% Black or African American, 19% American Indian and Alaska Native, and 4% Hispanic or Latino.

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The civilian labor force was approximately 61%. Individuals below poverty between the ages of 16 and 64 was reported to be 24% which was higher than the state rate of 16%. Of the 10,002 housing units that were available, 81% are owner occupied followed by 29% renter occupied. Five hundred seventy-eight (578) business enterprises were documented for Sequoyah County. The dominant industries were in fields related to retail trade, food services, health care and social assistance, and accommodation and food services (U.S. Census Bureau, 2016 County Business Patterns).

Table 1		
YEAR 2013-2017 DEMOGRAPHIC ESTIMATES OF SEQUOYAH COUNTY		
Characteristics	County	State
Population Characteristics		
Population	41,364	3,896,251
Persons under 5 years old	6%	7.0%
Persons 18 years old and over	77%	75%
Persons 65 years old and over	18%	15%
Female persons	50%	50%
Male Persons	50%	50%
Ethnic Characteristics		
White persons	65.0%	73%
Black or African American persons	2.0%	7.0%
American Indian and Alaska Native persons	19.0%	7.0%
Asian	<1.0	2.0%
Hispanic or Latino	4.0%	10.0%
Housing Characteristics		
Total Housing units	10,002	1,712,841
Owner Occupied Housing Units	81.0%	86.0%
Renter Occupied Housing Units	29.0%	34.0%
Vacant Housing Units	19.0%	14.0%
Median Household Income	\$40,475	\$40,613
Economic Characteristics		
Median household income	\$37,455	\$49,767
Per capita money income	\$19,253	\$26,461
Families below poverty	20.0%	12.0%
Persons below poverty (18-64)	24.0%	16.0%
In Labor Force	61%	62.0%

Source: US Bureau of Census

Environmental Consequences

The PAA may temporarily increase noise affecting people living nearby, however this will be short term in nature. The proposed action is expected to provide a benefit to the surrounding population due to the expansion of businesses and economic opportunities that may not have otherwise been provided. Workforce expansion in the Sallisaw area is also expected to increase slightly associated with the establishment of the skilled, administrative, and maintenance staff at the Veterans Center. Local business may also experience increased sales opportunities tangential to construction and operation of the new Veterans Center that provide related products may experience an increase in sales in the general area as workers travel back and forth to the proposed facility. Positive benefits to micro-level socio-economics are anticipated. No adverse impacts are expected.

The NAA would result in no effects on the current conditions of this review factor. None of the facilities contemplated under PAA would be constructed and environmental conditions would remain unchanged.

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3.2.1 Environmental Justice

Executive Order (EO) 12898 “Federal Actions to Address Environmental Justice in Minority and Low-Income Populations” (February 11, 1994) states that if possible, no federal actions should place any adverse environmental, economic, social, or health effects on minority or low-income groups. The proposed action is located on ODVA-owned land. The property is not occupied nor does it have any residential development. No displacements would result because of the proposed action.

According to the poverty guidelines published by the US Department of Health and Human Services (HHS), the 2019 HHS poverty guidelines for a family of four with an annual household income of \$25,750 is considered to be the poverty level. An annual income of \$12,490 is considered to be the poverty level for an individual. The HHS Poverty Guidelines are published annually and reflect the poverty conditions for the previous year (Federal Register, 2019)).

Environmental Consequences

The PAA would not have any significant adverse effects to any persons; therefore, no minority group or low-income families would be disproportionately affected.

The NAA would not result in any disproportionate negative impacts on minority or low-income populations.

3.2.2 Protection of Children

Executive Order 13045 pertains to “Protection of Children for Environmental Health and Safety Risks”, April 21, 1997. This mandate requires that federal agencies are to identify and assess environmental health and safety risks that may affect children. EO 13045 states that to the extent permitted by law and appropriate, each federal agency shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks. The project is located in a rural area with very few homes in the general vicinity and is situated adjacent to a US highway. No children will be allowed to enter the action area during construction. The proposed facility has been designed and will be constructed with the standard safeguards for children.

Environmental Consequences

The PAA will not disproportionately affect the safety or health of children and will be in full compliance with Executive Order 13045. In conformance with the EO, children will be restricted from or near the construction areas associated with the proposed action. All construction areas would be restricted on a short-term basis from general public access. The project is located in a rural area with very few homes in the general vicinity and is situated adjacent to a US highway. No children will be allowed to enter the action area during construction. The proposed facility has been designed and will be constructed with the standard safeguards for children.

The NAA would not cause impacts on the human environment. Therefore, there would be no negative impacts relative to this public interest review factor.

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3.3 Natural Resources

3.3.1 Soils

The Web Soil Survey for Sequoyah County was used to broadly assess the soils within the proposed action area. Three soil units identified were identified within the proposed action area. The mapped soil series include Stigler silt loam, 0 to 1 percent slopes, Kanima very gravelly silty clay loam, 5 to 30 percent slopes, and Vian silt loam, 1 to 3 percent slopes. It should be noted the Stigler and Kanima soils represented a very small portion of the action area. Onsite field surveys confirmed accurate soil mapping across the survey area.

Environmental Consequences

The AA3 will disturb approximately 17 acres of soil. The disturbance of soil and construction activities associated with the proposed project will be performed in accordance with the standard best management practices (BMP's). Best Management Practices are used to minimize soil erosion and sedimentation from construction while the site undergoes removal of the soil, transporting soil and vegetation and compacting and re-grading the site. Silt fencing and hay bale barriers should be installed down gradient of areas of disturbance to dissipate velocities of surface water runoff and trap fugitive sediment. Appropriate measures will be implemented to ensure the introduction or expansion of noxious and or invasive weeds are avoided and minimized. Seed would be planted in the fall and over seeded in the following spring and repeated as necessary until the disturbed soils become protected by at least an 80% coverage of vegetation.

The NAA would not cause impacts to the existing soils. Therefore, there would be no negative impacts relative to this public interest review factor.

3.3.1.1 Farmland Soils

The Natural Resource Conservation Service (NRCS) administers the Farmland Protection Policy Act (FPPA 1981) to ensure that federal programs minimize unnecessary and irreversible conversion of farmland soils to nonagricultural uses. The NRCS Web Soil Survey was accessed to identify the presence of any farmland soils on upland areas adjacent to the proposed action. No prime farmland soils were identified within the proposed action area based on coordination with the Natural Resources Conservation Service (NRCS) Web Soil Survey. The response from the NRCS is provided in *Appendix B*.

Environmental Consequences

Although the PAA would disturb approximately 17 acres of soil, none of onsite soils are considered prime farmland soils. No other easements relative to the Farm Protection Policy Act have been identified by NRCS. Therefore, the FPPA does not apply. Documentation from the NRCS is provided in *Appendix B*.

The NAA would not impact farmland soils. Therefore, there would be no negative impacts relative soils protected under the FPPA.

3.3.2 Wild and Scenic Rivers

The National Park Service Website was used to identify any wild and scenic rivers within or near the proposed action (National Park Service, 2012).

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Environmental Consequences

No waterways classified as wild and scenic pursuant to the Federal Wild and Scenic Rivers Act, Public Law 90-542 are located within the proposed action.

The NAA would not affect any wild or scenic rivers.

3.3.3 Vegetation

Executive Order 13112, signed by President Clinton on February 3, 1999, requires that a Council of Departments dealing with invasive species be created to prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species have. Invasive species are plants that grow and have a relatively higher probability of growing in areas of soil disturbance. The aggressive spread of these species can interfere with growth of native species. The NEPA study area is approximately 40 acres in size, however approximately 17 acres of land would be affected by the proposed action. The dominant vegetation identified within the action area included fescue (*Festuca pratensis*), Bermuda grass (*Cynodon dactylon*), white clover (*Trifolium repens*), annual ragweed (*Ambrosia artemisiifolia*), Johnson grass (*Sorghum halapense*), yellow hop clover (*Trifolium aureum*), mare's tail (*Conyza canadensis*), hedge parsley (*Torilis arvensis*), smartweed (*Persicaria hydropiper*), green flat sedge (*Cyperus virens*), late flowering boneset (*Eupatorium serotinum*), horse nettle (*Solanum carolinense*), thistle (*Cirsium sp.*), barnyard grass (*Echinochloa crus-galli*), Dallis grass (*Paspalum sp.*), chufa (*Carex esculantus*), Frank's sedge (*Carex frankii*), water primrose (*Ludwigia decurrens*), creeping spikerush, (*Eleocharis palustris*), and flat-stemmed spikerush (*E. compressa*). The dominant woody vegetation consisted of American elm (*Ulmus americana*) and sugarberry (*Celtis laevigata*). Very few trees or saplings were present within the survey area and located along fence rows or were scattered individuals.

Environmental Consequences

No invasive species were observed within the action area. Removal of primarily herbaceous and very limited woody vegetation would result from construction of the PAA. Approximately 17 acres of mostly herbaceous vegetation will be affected by the proposed project and will be permanently altered from their current condition. The PAA design plan was modified from the identified alternative design to reduce the overall facility footprint and impacts to vegetated areas. Compensatory mitigation (replacement) to offset these impacts does not appear realistic and is not proposed. However, revegetation of the temporarily disturbed and ultimately restored areas is proposed as compensatory mitigation (**Section 5.0**).

The NAA would allow vegetative species to persist in or flourish from their current state. Therefore, no negative impacts are expected.

3.3.4 Water Resources

Surface Water

The Sallisaw, OK USGS topographic map indicates one intermittent stream is located within the survey area. It should be noted this waterway is more accurately described as ephemeral. No perennial streams are present in the NEPA study area; however, 11 herbaceous wetlands were identified and delineated during the waters of the US delineation survey. The waters of the US delineation report of survey provides the descriptions, characteristics, and photographs of the identified aquatic resources observed within the PAA and is provided at **Appendix C**.

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Environmental Consequences

While open or flowing water resources were identified within the NEPA study area, no waterways or ponds were identified within the proposed construction area. No impacts are anticipated to surface water resources. The proposed project design plan was situated within the project area to avoid impacts to waters of the US.

Groundwater

The proposed action area is located in the Arkoma Basin (Curtis and Ham, 1979). The Oklahoma Water Resources Board website was used to broadly assess groundwater resources beneath land within the proposed action. The proposed action is underlain by the Roubidoux Aquifer (Osborn and Hardy, 1999). The outcrop of the Early Cretaceous-age Antlers Sandstone, DeQueen Limestone, and Holly Creek Formation provide recharge for the Antlers hydrogeologic basin. The Roubidoux aquifer is a major aquifer in Oklahoma. The Roubidoux aquifer is a carbonate aquifer composed of multiple water-bearing units with the Boone and Roubidoux being the predominant formations utilized for fresh groundwater resources. The Mississippian-age Boone Formation crops out in eastern and northeastern Oklahoma and is composed of limestone and cherty limestone, with thicknesses in Oklahoma ranging geographically from 250 feet in Adair County to 400 feet in Ottawa County. The Ordovician-age Roubidoux Formation consists of dolomite, cherty dolomite, and sandstones, which crops out extensively in central and southeastern Missouri with thicknesses in Oklahoma ranging from 100 to 200 feet. The two units are separated by the Chattanooga Shale, also known as the Ozark confining unit, which serves as a barrier for hydraulic flow in some areas but can be absent in others. The Boone-Roubidoux aquifer supplies domestic, industrial, irrigation, and municipal wells, with large-volume wells primarily completed in the Roubidoux Formation yielding on average 200 gallons per minute (gpm), and reaching up to 1,000 gpm in Ottawa County. Boone Formation wells in Delaware County averaged 3.5 gpm with a maximum of 50 gpm, while in Ottawa County Boone Formation wells have reached yields as high as 1,000 gpm.

Environmental Consequences

Based on the evaluation of groundwater resources, aquifer locations and characteristics, the PAA will result in minimal disturbance of land within the local watershed. The change in land use associated with this project should have a negligible, if any, effect on groundwater resources or aquifer recharge.

No surface or subsurface water resources would be affected resultant from the NAA.

Public Water Supplies

The Oklahoma Department of Environmental Quality's Data Viewer was used to broadly assess the presence of public water supplies wells, public water supply intakes, and wellhead protection areas that may be affected by the proposed action.

Environmental Consequences

No public water supply systems would be affected by the PAA.

The NAA would not affect public water supply systems. Therefore, there would be no negative impacts relative this this public interest review factor.

Sole Source Aquifers

The United States Environmental Protection Agency's website was used to identify the location of any sole source aquifers. No sole source aquifers are located within or near the PAA.

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Environmental Consequences

No impacts to sole source aquifers would occur as a result of the PAA.

The NAA would not affect this resource.

3.3.5 Floodplains

The protection of floodplains and floodways is required by Executive Order 11988 to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains to avoid direct or indirect support of floodplain development. Coordination with the Oklahoma Water Resources Board determined that Sequoyah County participates in the National Flood Insurance Program (NFIP). The Federal Emergency Management Agency's (FEMA) website was used to determine whether any floodplains were located within the proposed action. The proposed action area is located on Map Number 40135C0420F dated September 9, 2010. The proposed action is located outside the FEMA designed 100-year floodplain and shown on **Figure 5**. None of the proposed action area is located within the 100-year floodplain.

Environmental Consequences

The PAA will not disturb or be situated in any portion of a mapped 100-year floodplain. All work associated with the proposed action would conform to applicable state or local floodplain protection standards if required. Sequoyah County participates in the National Flood Insurance Program; however, no concerns have been presented by the appropriate regulatory agency.

The NAA would not impact any mapped floodplain areas.

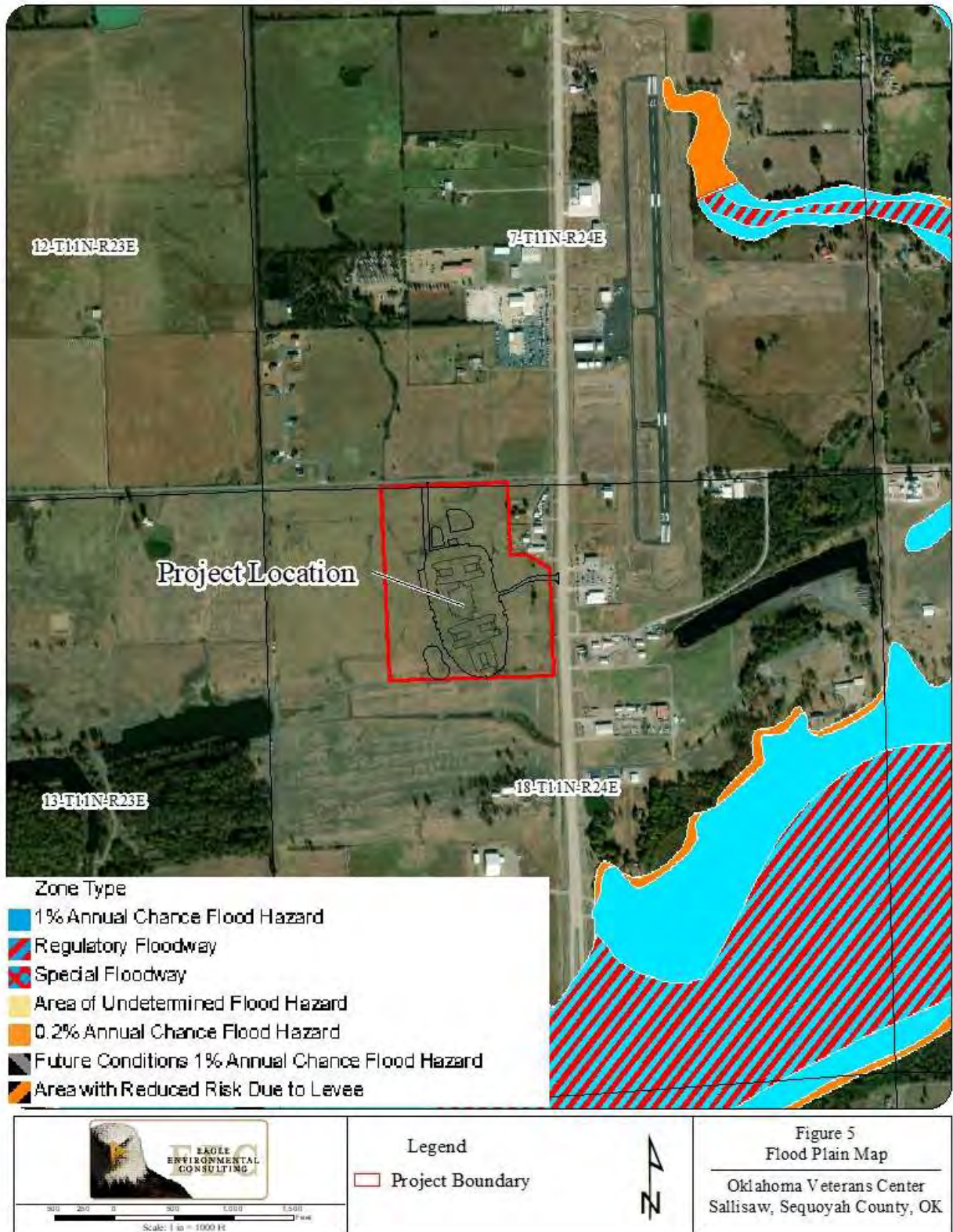
3.3.6 Wetlands

The United States Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (USACE 2010) were referenced in concert to identify wetlands. Wetland areas, if observed, were to be identified using the routine on-site (level 2) method, as described in Section D of the 1987 USACE Wetlands Delineation Manual. The identification of wetlands consists of a three-parameter approach that involves determining the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Where differences in the two documents occur, the Regional Supplement takes precedence over the 1987 Corps Manual for applications in the applicable Region. A survey for wetlands was performed within the proposed action area. Results are summarized in **Section 4.3.3**. The report of survey detailing the onsite evaluation is provided in **Appendix C**.

Environmental Consequences

Eleven (11) herbaceous wetlands were identified and delineated within the action area. Based on the impact analysis associated with the PAA, most of the identified wetland areas have been avoided (preemptive mitigative effort). Only two wetland features would be affected; FS-5 and FS-9. The overall wetland impact acreage would be 0.108. The wetland **impact acreage** for FS-5 would be 0.008 and FS-9 is 0.10 acre. **Table 2** provides a summary of the identified aquatic resources, linear footage of stream, acreage of wetlands and the anticipated jurisdictional status. The specific information for the affected wetland areas FS-5 and FS-9 are color-shaded for reference.

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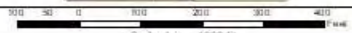
Table 2: Identified Aquatic Resources						
Site	Feature Type	Footage	Acres	Latitude	Longitude	Jurisdictional Status
FS-1	Herbaceous Wetland	---	0.008	35.43176	-94.80630	Potential
FS-2	Herbaceous Wetland	---	0.071	35.43143	-94.80692	Not Apparent
FS-3	Herbaceous Wetland	---	0.003	35.43099	-94.80674	Not Apparent
FS-4	Herbaceous Wetland	---	0.159	35.43062	-94.80687	Not Apparent
FS-5	Herbaceous Wetland	---	0.010	35.42984	-94.80824	Not Jurisdictional
FS-6	Herbaceous Wetland	---	0.082	35.43162	-94.80692	Yes
FS-7	Herbaceous Wetland	---	0.086	35.43294	-94.81070	Yes
FS-8	Herbaceous Wetland	---	0.034	35.43394	-94.81030	Yes
FS-9	Herbaceous Wetland	---	0.823	35.43295	-94.80965	Yes
FS-10	Herbaceous Wetland	---	0.021	35.43076	-94.81041	Yes
FS-11	Herbaceous Wetland	---	0.020	35.43352	-94.80995	Not Apparent
FS-12	Ephemeral Waterway	1,619	0.383	35.43226	-94.81050	Yes

The overall area associated with FS-9 within the survey area was 0.823 acres. Most of the impacts to FS-9 were avoided during original site design process. Further minimization efforts were implemented through modification of the PAA design plan during the permit evaluation process with the USACE. After avoidance and subsequent minimization efforts were completed, the final impact to FS-9 totaled 0.10 acres. The unavoidable impacts to FS-9 require authorization pursuant to Section 404 of the Clean Water from the U.S. Army Corps of Engineers. The USACE issued authorization for the stated impacts to FS-9 under the Nationwide Permit for Commercial and Institutional Developments (NWP 39). Formal determination of the jurisdiction for FS-5 was obtained during pre-application consultation with the USACE. FS-5 was not considered jurisdictional by the USACE and did not require Section 404 permit authorization. A copy of the USACE authorization letter and NWP is provided in *Appendix C*. Compensatory mitigation was not required by the USACE. The affected aquatic resources are identified on *Figure 6*.

There would be no impacts to existing wetlands under the NAA.

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	<p>Legend</p> <ul style="list-style-type: none"> Project Boundary Area of Disturbance Wetlands Impacted Wetlands 		<p>Figure 6 WOUS Impact Analysis Oklahoma Veterans Center Sallisaw, Sequoyah County, OK</p>
 <p>Scale: 1 in = 1000 ft</p>			

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3.3.7 Fish and Wildlife

The species of wildlife expected to use or be present within the proposed action area may include such species as white-tailed deer (*Odocoileus virginianus*), cottontail rabbit (*Sylvilagus floridanus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and skunk (*Mephitis mephitis*). Various avian species comprised of raptors, waterfowl, neo-tropical migrants, as well as a variety of herpetofauna including cottonmouth (*A. piscivorus*), water snakes (*Nerodia sp.*), amphibians, salamanders, lizards, skinks, terrapins and turtles are present in and/or migrate through the general area. Predatory mammals including the coyote (*Canis latrans*) are expected in average density while the numbers of grey fox (*Urocyon cinereoargenteus*) are expected to be low. Local bobcat (*Lynx rufus*) populations are anticipated to be below average and their use of the project area is expected to be minimal based on the lack of structural cover.

Environmental Consequences

The PAA is not expected to cause impacts to aquatic species since no open surface waters will be affected and only 0.10 acres of seasonally inundated wetland areas would be altered or filled. Animal species and their respective uses are expected to be varied, opportunistic, and relative to the preferred or utilized habitats for each. Based on the observed habitat characteristics, the most predominant species expected to be present or utilize the proposed action would consist of small mammals and birds. The diversity of bird species varies between summer and winter migrants however, no nests were observed. Predatory or omnivorous animals such as coyote, skunk, raccoon, and snakes are expected to utilize both terrestrial and aquatic areas primarily during foraging. The habitat quality is subjectively described as relatively poor relative to the wide range of species known to occur within or adjacent to the project area. For example, white-tailed deer may infrequently use the area for foraging. However, due to its lack of seclusion, routine human access, adjacency to a major highway, and very limited woody vegetative structure this and many other mammalian species are not expected to extensively or frequently utilize the project area. Avian species utilize the action area and appears to be relegated primarily to neo-tropical migrants and raptors during foraging. It should be noted the quality of habitat for most song birds appears poor.

Ground nesting species were not observed and are not expected in any consistent appreciable extent or numbers based on the vegetation types and structure – being improved grasses and low forb diversity. Ground-dwelling rodents and their evidence were observed within the action area. Suitable forage and cover for both birds and small mammals are provided by seed producing herbaceous vegetation. Herpetofauna are expected to utilize the action area but the existing habitat appears to limit the species diversity and possible densities based on the very dense herbaceous coverages and near non-existent low shrub cover. The available habitats for these species would include herbaceous fields, drainage channels, upland hillsides, wetland areas, and along the ephemeral waterway (which is outside the proposed construction area - and may provide refuge for escaping species). Based on this assessment, the overall impacts to terrestrial species are expected to be minor and minimal. The majority of the terrestrial species should be able to flee the proposed work areas prior to construction. Some nesting habitat for avian species may be removed. However, more than sufficient suitable and preferred habitat is available in very close proximity to the proposed action area for terrestrial species to utilize for cover, nesting, denning, and/or foraging. Since the majority of the prospective construction operations would occur on upland areas, adverse impacts to aquatic species are not anticipated.

Under the No-Action Alternative, terrestrial and aquatic species would not be affected.

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3.3.8 Threatened and Endangered Species

In accordance with the Endangered Species Act of 1973, Federally-listed threatened and endangered species were identified for the proposed action area. The official list of threatened and endangered species potentially present within or adjacent to the proposed action was generated by the United States Fish and Wildlife Service’s on-line Information, Planning, and Conservation (IPaC) decision support system (USFWS, 2019). EEC conducted field surveys to evaluate the existing habitats and determine the potential for species presence. A biological assessment was prepared identifying the life cycle and habitat requirements for each species, discusses the anticipated impacts as well as effect determinations and is located in *Appendix D. Table 3* below provides a summary of the listed species known to occur in or migrate through Sequoyah County, OK, their listing status, habitat requirements, and identification of observed habitats relative to each species:

Table 3 - Federally Listed T&E Species			
Species/Critical Habitat	Listing Status	Habitat Requirements	Status within Action Area
American Burying Beetle (<i>Nicrophorus americana</i>)	Endangered	Breeding habitat: undisturbed, mature oak-hickory forests with substantial litter layers and deep, loose soils over grasslands or bottomland forests. Feeding habitat: undisturbed grasslands, grazed pasture, riparian zones, and oak-hickory forest, as well as a variety of various soil types.	Suitable habitat was identified within the project area. was required and completed in August 2019. No ABB were captured.
Least Tern (<i>Sterna antillarum</i>)	Endangered	Islands or sandbars along large rivers, mostly clear of vegetation for nesting and loafing and with water nearby for fishing.	No suitable nesting or foraging areas were observed. Based on the planned construction activities, Least terns should not be affected.
Piping Plover (<i>Charadrius melodus</i>)	Threatened	Migratory stopover habitat includes sparsely vegetated sandy or gravelly shorelines and islands associated with the major river systems. Species does not nest in OK.	No suitable foraging habitat present within the project corridor.
Red Knot (<i>Calidris canutus rufa</i>)	Threatened	Coastal areas, mudflats on lakes or reservoirs, and may use sandbars along the major river systems for forage and resting areas. Species does not nest in OK.	No suitable habitat was identified within the project corridor.
Ozark Big-eared Bat (<i>Corynorhinus townsendii ingens</i>)	Endangered	The Ozark Big-eared Bat lives in limestone caves found in forested portions of the Ozark Highlands. Most of this bat population occurs in Adair, Cherokee and Delaware counties in Oklahoma, and in Arkansas, and historically in southwest Missouri. These bats feed above the tree canopy and in gaps and clearing within the forest, usually associated with oak and oak-hickory forest types.	Suitable habitat was not identified within the proposed action area.
Gray Bat (<i>Myotis grisescens</i>)	Endangered	Limestone caves. Forage on aquatic and terrestrial insects near streams and rivers.	The proposed project lies within the foraging habitat range for the gray bat. No caves are present in or near the project area.
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened	Forested areas containing live and dead trees with exfoliating, curling, or sloughing bark. Forages on primarily terrestrial insects among canopy and interior forest openings.	Potentially suitable roosting, maternity, and/or foraging habitat was not identified within or adjacent to the study area.
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	Forested areas containing live and dead trees with exfoliating, curling, or sloughing bark. Forages on aquatic and terrestrial insects near streams and rivers and forest openings.	Potentially suitable roosting, maternity, and/or foraging habitat was not identified within or adjacent to the study area.

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Environmental Consequences

Suitable habitat is present for the American Burying Beetle (ABB) within the action area. The PAA May Affect, unlikely to adversely affect the ABB. The USFWS proposed to down-list the ABB from endangered to threatened in May 2019. The final decision is not expected until May 2020 but a change in status to threatened would not change the protections afforded the ABB.

Based on the lack of suitable habitat, the proposed action would not affect the Least Tern, Piping Plover, Red Knot, Northern long-eared bat, Gray bat, and Ozark big-eared bat. Two records documenting the presence of ABB near the action area was received from ONHI. No other species occurrence records have been documented within or near the action area (*Appendix D*). The Species Conclusion Table (*Table 4*) below provides the documentation and rationale relative to the federally-listed species:

The attached biological assessment provides the detailed discussion of threatened and endangered species life cycle and habitat requirements as well as the rationale supporting the determination of effect. The species conclusion table below is provided as a synopsis for the determinations of effect for each of the federally listed species (*Table 4*):

Table 4 - Species Determination of Effect			
Species/Critical Habitat	Habitat Determination	USFWS Consultation	ESA Determination
American Burying Beetle	Suitable Habitat	Required	May Affect, not likely to adversely affect
Least Tern	No Suitable Habitat Present	Not Required	No Effect
Piping Plover	No Suitable Habitat Present	Not Required	No Effect
Red Knot	No Suitable Habitat Present	Not Required	No Effect
Whooping Crane	No Suitable Habitat Present	Not Required	No Effect
Gray Bat	No Suitable Habitat Present	Not Required	No Effect
Northern Long eared Bat	No Suitable Habitat Present	Not Required	No Effect
Indiana Bat	No Suitable Habitat Present	Not Required	No Effect
Ozark big-eared Bat	No Suitable Habitat Present	Not Required	No Effect

Potentially suitable habitat for the ABB is considered present within the action area. Exclusionary factors relative to ABB habitat were not expressly observed and could not be applied. EEC completed an ABB presence/absence survey in August 2019 during which no ABB were captured. The USVA initiated Section 7 ESA consultation with the USFWS on November 5, 2019. The USFWS concurred with the determination as stated for each species with no further requirements.

The NAA would not affect any federally-listed threatened or endangered species.

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Bald Eagle

Although the Bald Eagle (*Haliaeetus leucocephalus*) has been removed from the threatened and endangered species list, the eagle continues to be protected by the Bald and Golden Eagle Protection Act. Bald eagles are rather large raptorial birds measuring 3 feet in height with a 7-foot wingspan. The bald eagle prefers large trees or high cliffs along large waterways for perching and nesting purposes. Fish is the preferred diet of eagles, but they also eat small mammals, waterfowl, turtles and dead animals. Preferred foraging areas include quiet coastal areas, rivers or lakeshores with large tall trees.

Environmental Consequences

Potential or suitable nesting or fishing habitat was not identified within the action area. No Bald Eagles or nests were observed during the onsite surveys. The PAA would not affect the Bald Eagle.

The NAA would not affect the Bald Eagle.

Migratory Birds

Executive Order 13186 refers to the responsibility of federal agencies to protect migratory birds. Migratory bird species are protected under the Migratory Bird Treaty Act (MBTA) as amended. The MBTA prohibits the take of any migratory bird without authorization for the USFWS.

Environmental Consequences

Very limited and/or low-quality suitable nesting habitat for neo-tropical migratory birds may be present within the action area however no nests were observed. Foraging habitats also appeared to be minimal and of relatively low quality. Higher quality habitat for nesting migratory birds was observed in areas surrounding the project locality. No raptor (birds of prey) nesting or perching habitat is present. Construction is encouraged to occur between August 15 and March 31 to avoid the nesting season to avoid potential impact to migratory birds. No adverse impacts to migratory birds are expected as a result of the PAA.

The NAA would not affect migratory birds.

3.3.9 Cultural Resources

Section 106 of the National Historic Preservation Act of 1966, as amended, protects those properties that are listed or eligible for listing in the National Register of Historic Places (NRHP). The Oklahoma Archeological Survey (OAS) stated by letter (July 2018) that no sites are listed as occurring within the proposed action area. Based on the topographic and hydrologic setting, no archeological field inspection was considered necessary. The environmental review was done in cooperation with the State Historic Preservation Office, Oklahoma Historical Society. The Oklahoma Historical Society (OHS) reviewed the documentation concerning the proposed action and determined that there are no historic properties affected by the referenced project. The Osage Nation requested a cultural resources study be conducted at the subject site. The project proponent completed the requested survey and provided a copy of the report of survey to the Osage Nation, OAS, and OHS. No further responses were received from OAS or OHS. The Osage Nation concurred with the study findings and concurred with the USVA determination of no effect to historic properties. Consultation documentation is provided in *Appendix B*.

Environmental Consequences

The OAS stated a cultural resources survey would not be required based on the topographic setting of the project area. The PAA will not impact any known cultural resources. If such resources are inadvertently encountered, the owner will be notified and construction activities temporarily halted until

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appropriate coordination with OAS can be initiated. The OHS advised no properties would be affected. The Osage Nation provided concurrence with the a no effect determination. The USVA stated the project would not affect historic properties. **Section 5.0** provides coordination protocols for inadvertent discoveries.

The NAA would not impact cultural resources.

3.3.9.1 Tribal Consultation

Under 36CFR Part 800.3, native American tribes were identified that could have concerns regarding the proposed action. The U.S. Department of Housing and Urban Development Tribal Directory Assessment Tool was used to identify Native American Tribes that may have an interest in the proposed action area. Seven native American Indian tribes were sent letters concerning the proposed project as listed below:

- Alabama-Quassarte Tribal Town
- Osage Nation
- Apache Tribe of Oklahoma
- Wichita and Affiliated Tribes
- Cheyenne and Arapaho Tribes of Oklahoma
- Caddo Nation
- Muskogee (Creek) Nation

Letters sent to and received from the respective Native American tribes are provided in *Appendix B*.

Environmental Consequences

Multiple tribal nations were provided scoping letters requesting their comments or concerns relative to the project area. The Cherokee Nation provided a response requesting to receive a copy of the environmental assessment but did not foresee the proposed action imparting impacts to Cherokee cultural interests at this time. The Osage Nation requested a cultural resources study be conducted. The results of the completed survey indicated no resources were found or would be affected. Therefore, no tribal resources or important historical features/sites would be affected. Inadvertent discoveries of historically-important tribal resources may occur during construction. The project proponent will cease construction activities if any such resources are accidentally discovered.

The NAA is not expected to result in adverse impacts to tribal resources.

3.3.10 Air Quality

The Clean Air Act (CAA) requires the USEPA to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. Ambient air quality monitoring stations exist at various locations throughout Oklahoma. The NAAQS were established for ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO_x), sulfur dioxide (SO_x), and particulate matter (PM₁₀) and (PM_{2.5}). Areas that meet the national standards for the criteria air pollutants are in attainment. Areas that exceed the national standards are in nonattainment. Under the CAA, the EPA has classified air basins as being in attainment or nonattainment for each of the criteria pollutants and whether or not the standards have been achieved. Air quality in Oklahoma is measured and regulated by the Oklahoma Department of Environmental Quality, Air Quality Division (**Table 5**). Currently, Sequoyah County, Oklahoma is in attainment with regard to the NAAQS with respect to the criteria pollutants CO, SO₂, O₃, NO_{2.5}, PM₁₀, and Pb.

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Pollutant		Primary/Secondary	Averaging Time	Level
Carbon Dioxide		Primary	8-hour	9 ppm
			1-hour	35 ppm
Lead		Primary and Secondary	Rolling 3-month average	0.15 µg/m ³ ⁽¹⁾
Nitrogen Dioxide		Primary	1-hour	100 ppb
		Primary and Secondary	Annual	53 ppb ⁽²⁾
Ozone		Primary and Secondary	8-hour	0.075 ppm ⁽³⁾
Particulate Pollution	PM _{2.5}	Primary	Annual	12 µg/m ³
		Secondary	Annual	15 µg/m ³
		Primary and Secondary	24-hour	35 µg/m ³
	PM ₁₀	Primary and Secondary	24-hour	150 µg/m ³
Sulfur Dioxide		Primary	1-hour	0.075 ppb ⁽⁴⁾
		Secondary	3-hour	0.5 ppm

1. Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

2. The official level of the annual NO₂ standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.

3. Final rule signed March 12, 2008. The 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8-hour concentration, averaged over three years) and related implementation rules remain in place. In 1997, USEPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard (“anti-backsliding”). The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to one.

4. Final rule signed June 2, 2010. The 1971 annual and 24-hour SO₂ standards were revoked in that same rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved. Source: USEPA Office of Air and Radiation, 2015.

Environmental Consequences

The PAA is located in Sequoyah County which is classified as **in attainment** with regard to the NAAQS pollutants.

Construction Related Emissions

The proposed project would generate local temporary short-term direct impacts on air quality during construction. Sources of dust will be generated from vehicular traffic and construction-related equipment (trucks, scrapers, and excavators). The emission levels of the anticipated construction equipment are expected to be minimal based on the relatively few numbers of construction equipment needed to accomplish the construction process. The EPA has the following recommendations to implement regarding the construction period of the project:

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- Use ultra-low sulfur fuel (< 15 ppm) in all diesel engines.
- Use add-on controls such as catalysts and particulate traps where suitable.
- Minimize engine idling (e.g., 5-10 minutes/hour).
- Use equipment that runs on clean, alternative fuels as much as possible.
- Use updated construction equipment that was either manufactured after 1996 or retrofit to meet the 1996 emissions standards.
- Prohibit engine tampering and require continuing adherence to manufacturers' recommendations.
- Maintain engines in top running condition tuned to manufacturers' specifications.
- Phase project construction to minimize exposed surface areas.
- Reduce speeds to 10 and 15 mpg in construction zones.
- Conduct unannounced site inspections to ensure compliance.
- Locate haul truck routes and staging areas away from sensitive population centers.

The project proponent or their selected contractors will implement dust control measures that will effectively eliminate and or minimize dust during construction activities. No long term or adverse impacts are anticipated

Operational Related Emission

Criteria emission sources during operation of the proposed project will occur. Minor increases may result during times of increased traffic at the proposed Veterans Center; however, these periods are expected to be brief and intermittent enough to allow sufficient time for atmospheric assimilation. No adverse impacts are anticipated as a result of the PAA.

Under the NAA, no earth disturbing activities would occur and no emissions would result which would affect air quality, increase emissions, or climatological patterns.

3.3.11 Hazardous Materials

In July 2019, a Phase 1 Environmental Site Assessment (ESA) was performed within the proposed action area for recognized environmental conditions. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to any release to the environment under conditions indicative of a release to the environment or under conditions that pose a material threat of a future release to the environment. On June 25, 2019, Environmental Data Resources, Inc. (EDR) conducted a search of state and federal environmental database records. The searches met the specific requirements of ASTM Standard Practice for Environmental Site Assessments.

Environmental Consequences

No residential or commercial structure were identified. No out buildings were observed. One shed was observed on the eastern portion of the property that was used as a wind shield for cattle. Near the wind shed, a solar powered electric powered fence charge was observed and a partially-buried barrel used to heat water during the winter for livestock. The property is used as pastureland and there were no improved roadways. The majority of the property is covered with herbaceous vegetation. The vegetation across the property was homogeneous with no evidence of distressed vegetation. No petroleum storage tanks were observed. No areas of concern were identified through state and federal database research. No known Recognized Environmental Conditions were identified. No sites or environmental issues were identified within the proposed action area in any of the databases searched by EDR.

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The assessment (EEC, 2019) revealed no evidence of recognized environmental conditions. The Phase 1 ESA is provided at *Appendix E*.

The No-Action Alternative would not impact hazardous waste or materials.

3.3.12 Geology

The Oklahoma Department of Environmental Quality Data Viewer was used to obtain the geologic environment within the proposed action area. The proposed action is located within the Ozark Uplift geologic province of Oklahoma. This uplift encompasses parts of northeastern Oklahoma and includes portions or all of the counties of Sequoyah, Cherokee, Muskogee, Wagoner, Mayes, Delaware, Craig, and Ottawa. The entire uplift is within the drainage of the Arkansas River Basin. Quaternary aged sediments composed of gravel, sand silt, and clay were deposited within the proposed action area associated with hydrological processes of the Arkansas River. Beneath are Pennsylvanian aged sedimentary rocks of the McAlester Formation (Miser, 1954).

Environmental Consequences

Based on the surficial earth disturbing activities associated with the PAA, no geologic resources would be directly or indirectly affected. No deep boring or excavation is required for structural support. All building footers and roadway bases are expected to be associated with relatively shallow excavation.

The No-Action would not impact geologic resources.

3.3.13 Climate Change

Climate change is an important national and global concern. There is general agreement that the earth's climate is currently changing and anthropogenic (human-caused) greenhouse gas (GHG) emissions have been documented as contributing to this change. Carbon dioxide (CO₂) makes up the largest anthropogenic component of these GHG emissions. However, there is no scientific methodology for attributing specific climatological changes to a particular project's emissions. The CEQ GHG emissions guidance requires action agencies to consider: (1) The potential effects of a proposed action on climate change as indicated by assessing GHG emissions (e.g., to include, where applicable, carbon sequestration); and, (2) The effects of climate change on a proposed action and its environmental impacts.

This guidance recommends agencies quantify a proposed agency action's projected direct and indirect GHG emissions; use projected GHG emissions (to include, where applicable, carbon sequestration implications associated with the proposed agency action) as a proxy for assessing potential climate change effects; recommends agencies include a qualitative analysis and explain the basis for determining that quantification is not reasonably available because tools, methodologies, or data inputs are not reasonably available to support calculations for a quantitative analysis; discusses methods to appropriately analyze reasonably foreseeable direct, indirect, and cumulative GHG emissions and climate effects; considers reasonable alternatives for short- and long-term effects and benefits in the alternatives and mitigation analysis; advises agencies to use available information rather than undertaking new research, and provides examples of existing sources of scientific information; recommends using information developed during the NEPA review to consider alternatives that would make the actions and affected communities more resilient to the effects of a changing climate; outlines special considerations for agencies analyzing biogenic carbon dioxide sources and carbon stocks associated with land and resource management actions under NEPA; and using the agencies expertise and experience to consider an environmental effect and prepare an analysis based on the available information.

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Environmental Consequences

Greenhouse gas emissions from construction of the PAA would be minor and similar to other small construction projects. Operation of the proposed Veterans Center would have a net decrease on greenhouse gas emissions, as operation of the current aging facility would be replaced by a new facility that operates with more modern and efficient systems. Therefore, no emissions significantly contributing to climate change would occur. Ecological changes in Oklahoma due to climate change are predicted to include warming temperatures and increased severity of both floods and drought over the next several decades. These changes are not expected to affect the need for, viability of, or environmental impacts of the PAA.

Under the NAA, no greenhouse gas emissions or impacts to or from climate change would occur.

3.3.14 Community Services

Community services are identified as providers of fire, police, and medical emergency services having jurisdiction within or surrounding the PAA property. Potential impacts could include disruption of service, site access prevention, and/or creating situations where traditional transportation routes or increased response times could occur – temporary or permanent. Impacts to said services could also result from the PAA by placing a greater burden on service providers directly attributed to response needs for which the providers are not currently staffed at sufficient levels to serve the PAA. Community services not relevant to PAA would include schools, libraries, housing, and are not expressly considered as part of this assessment.

Environmental Consequences

The PAA is situated adjacent to a primary, 4-lane, US Highway servicing the travelling public to and from the City of Sallisaw. No service disruptions, access restrictions, transportation route modifications to the PAA or surrounding community(ies) or changes which would alter emergency service response times beyond the PAA are expected to occur as a result of the PAA. Since the PAA is a medical facility designated for veterans, an increased burden on local medical emergency services is not expected. Increased burden on law enforcement and/or fire services are not anticipated based on their current force sizes relative to the community demands and coverage. Multiple police units and fire stations as well as volunteer staffing are expected to be in sufficient number to adequately address emergency situations. It should be noted, the occurrence of multiple simultaneous emergency situations cannot be predicted, expected, or calculated and should not be considered a function of the PAA potentially creating such hardship on community service providers during extreme crime, emergency, and/or disaster events. In such extreme situations, additional nearby or adjacent county service support providers would be available to assist the primary providers. No adverse impacts to community services are expected to occur as a result of the PAA.

The NAA would not alter the currently-provided community services.

3.3.15 Transportation and Parking

The potential effect on transportation facilities relative to the PAA could include increased local traffic, availability of or need for new public transportation, and parking at the site. Impacts to these facilities could also result from the PAA by increasing traffic volumes or service loads on the existing roadways as well as creating reduced parking availability in the surrounding area.

Environmental Consequences

The PAA is situated adjacent to a primary, 4-lane, US Highway servicing the travelling public and has been designed to accommodate expected traffic volumes and levels well into the future based on the

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standard state department of transportation design requirements. No parking areas are present within or near the existing property which would be affected by competing parking needs. Ample parking associated with the PAA has been incorporated into the overall facility design to accommodate expected transportation and parking needs. No impacts relative to these public interest review factors are expected to result from the PAA.

The NAA would not affect current transportation or parking patterns.

3.3.16 Utilities

Public utilities required to support the PAA would include water, sewer, natural gas, electricity, and/or telecommunications services. Based on the engineering design, survey information, and adjacent businesses requiring the same utilities, all services appear currently available adjacent to the PAA. Connection to said utilities to support the PAA would be available without additional construction activities to bring services to the PAA.

Environmental Consequences

Services are located adjacent to the PAA within the existing rights of way and/or easements along the US Highway. Size increases are not expected to the existing services. Installation of new utility services is expected to be required as a result of the PAA. No existing system upgrades have been identified as necessary to support the PAA. No adverse impacts are expected to occur relative to this public interest review factor.

The NAA would not cause impacts on existing utility systems.

3.3.17 Potential for Generating Substantial Controversy

The PAA is associated with a new medical facility to address the needs of disabled veterans. The City of Sallisaw and Oklahoma Department of Veterans Affairs evaluated the potential for this public interest review factor during the site selection process.

Environmental Consequences

No issues of potential controversy were identified nor are they expected based on the lack of residential development near the PAA.

The NAA would not result in substantial controversy.

3.5 Cumulative Effects

Three types of impacts are routinely assessed with proposed federal actions and are defined by the Council on Environmental Quality (CEQ) regulations (40 CFR § 1500-1508). Direct impacts are defined as effects that are caused by the action and occur at the same place and time. Indirect impacts are defined as effects that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth induced effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems (40 CFR § 1508.8). Direct and indirect impacts have been addressed throughout this section.

Cumulative impacts are defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action (CFR 40 §

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1508.7). Cumulative impacts include the direct and indirect impacts of a project together with the reasonably foreseeable future actions of others.

The cumulative impacts that result from an action may be undetectable but can add to other disturbances and eventually lead to a measurable environmental change. The assessment of cumulative impacts is required by the CEQ. For any given resource, a cumulative impact would only potentially exist if the resource were also directly or indirectly impacted by the proposed action. The anticipated direct, indirect, and cumulative impacts identified as a potential result of the PAA are discussed in Section 3.6 below. No other ongoing or reasonably foreseeable future actions were identified in the vicinity of the PAA that may affect environmental resources, thus no cumulative impacts would occur.

3.6 IMPACT SUMMARY

The following provides the evaluation rationale and the potential need for mitigation to avoid, minimize, or offset expected impacts relative to the level of affect for the referenced resources:

Resource Impact Analysis

Those resources which have been identified as having potential adverse impacts are described below. **Table 7** identifies all environmental resources considered as well as the anticipated impact relative thereto. **Section 4.0** identifies the specific management and mitigation measures referenced in the discussions below.

Land Use

PAA would result in changes to local land use patterns by removing the previously conducted livestock operations. The previously landowner agreed to sell the subject parcel. The proposed land use would be consistent with the current usages of land within the immediate proximity to the proposed action. While not medically related, the other existing land uses include automotive dealerships, agriculture equipment dealerships, state and federal office buildings, and other sales enterprises. No cumulatively adverse land use effects have been identified or are expected.

Soils

The PAA would slightly modify the topographic setting of the project site through grading and site preparation. Changes to the project area should not influence land resources in other areas. The PAA would follow all appropriate permitting procedures; therefore, implementation of the PAA would not result in cumulatively considerable adverse effects to land resources.

Water Resources (Wetlands and Surface Waters)

The PAA would not directly impact surface water sources but could indirectly affect receiving drainages associated with a temporary increase in sedimentation to the local watershed from stormwater runoff. However, with the implementation of a storm water pollution prevention plan and use of best management practices, stormwater runoff would be minimized or prevented to avoid such impacts to the extent possible and not influence other areas of the local watershed. The PAA will comply with the Clean Water Act as it relates to stormwater (Section 402) and point-source (Section 404) discharges. No impacts are anticipated to surface or subsurface water resources. Mitigation measures would be employed to avoid and minimize impacts to surface water features. Impacts to two herbaceous wetland areas would occur. The USACE issued the NWP for Commercial and Institutional Developments authorizing fill material placement into a portion of two wetland areas. Compensatory mitigation for the affected wetland areas was not required by the USACE.

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Vegetation

All disturbed soils will be restored upon site grading or facility completion to restore site coverage to reduce or prevent soil erosion or sedimentation. Native herbaceous species will be required to revegetate disturbed areas not designated for lawn or facility grounds.

Biological Resources (Fish and Wildlife Resources and Threatened/Endangered Species)

The project area does not contain any unique or sensitive ecosystems or biological communities. Terrestrial and aquatic species would be able to move to adjacent areas with unrestricted access. Some terrestrial habitat would be removed but the activities should not result in adverse cumulative effects to any aquatic or terrestrial species. Avoidance and minimization of habitat impacts were implemented during site design and facility orientation as served as mitigation measures. No further mitigation relative to fish and wildlife resources are proposed. The PAA has the potential to impact suitable habitat for the federally-listed American Burying Beetle and a presence/absence survey was conducted in August 2019. The survey results were negative. Consultation with the USFWS was initiated November 5, 2019 and was concluded after receiving concurrence from the USFWS.

Cultural Resources

Protection measures for potential impacts to unknown cultural resources that may be inadvertently discovered have been included in **Section 4.0** and will be implemented as mitigation measures, and similar measures would be required for any development in the vicinity of the project site. No cumulatively considerable adverse effects to cultural resources would occur as a result of the proposed action.

Air Quality

Sequoyah County is in attainment for criteria pollutants established by the EPA. Future development near the project site would be subject to state and federal regulations; therefore, no cumulatively considerable adverse effects to air quality are anticipated. Mitigation measures will be required and employed during construction to minimize expected, albeit temporary impacts, associated with construction equipment emissions.

Hazardous Materials

Preventative maintenance measures will be required of the construction contractor(s) to ensure all equipment is in proper condition and does not result in leakage of fuels or lubricants. Storage of all fuels and lubricants onsite will be restricted to specific areas where precautionary and preventative measures or site management practices can be employed to capture accidental spills or leakages. Equipment storage areas providing similar leakage/spill capture will also be specified for machinery not actively used.

Table 6 presents a comparison of potential impacts to the social and natural environment.

Table 6 – Impact Summary Matrix						
Environmental Resource	Beneficial Impact	No Impact	Minimal Adverse Impact	Adverse Impact	Significant Adverse Impact	Mitigation Measure(s) Proposed
Land Use			•			•
Social Environment	•					
Economic Environment	•					

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Table 6 – Impact Summary Matrix						
Environmental Resource	Beneficial Impact	No Impact	Minimal Adverse Impact	Adverse Impact	Significant Adverse Impact	Mitigation Measure(s) Proposed
Aesthetics		•				
Environmental Justice		•				
Protection of Children		•				
Soils			•			•
Farmland		•				
Floodplains		•				
Wetlands			•			•
Surface Water (Water Quality)			•			•
Groundwater		•				
Vegetation			•			•
Fish and Wildlife			•			•
Threatened and Endangered Species			•			•
Cultural Resource			•			•
Air Quality			•			•
Hazardous Material			•			•
Geology		•				
Cumulative Impacts		•				

4.0 MANAGEMENT AND MITIGATION MEASURES

Mitigation is defined by CFR 1508.20 as:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
 - (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
 - (c) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
 - (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
 - (e) Compensating for the impact by replacing or providing substitute resources or environments.
- Mitigation measures to be implemented during construction of the PAA are summarized below.

Water Quality

Mitigation measures will be implemented as part of the design and construction of the PAA to reduce impacts resulting from stormwater runoff. The project proponent will comply with all requirements of the Clean Water Act as required by the state Water Quality Certification (Section 401), the National

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Pollutant Discharge Elimination System (NPDES) as required by Section 402 and by obtaining and complying with all conditions of the Section 404 of the Clean Water Act permit. Required permit authorizations have been or would be obtained prior to construction to ensure impact avoidance and/or minimization as well as regulatory compliance.

Air Quality

The project proponent or their contractor will prepare a dust control plan to minimize fugitive dust generated from construction. These measures may include stabilization of exposed earth with vegetation, mulch, pavement, or other cover as early as possible, application of stabilization agents such as water, covering of any stockpiled material, and the use of covered haul trucks. Proactive dust control measures will effectively eliminate and or minimize dust during construction activities to the extent possible.

Vegetation

Mitigation measures will be implemented to restore any affected environment to its original or natural state to the extent practicable. The identified BMP's will be employed during all project phases. Vegetation removal would be required to construct the proposed action. Replacement of the affected vegetation is proposed and would be accomplished through installation of native herbaceous species providing the most benefit for wildlife, habitat, and aesthetics. A suggested planting ratio of native grass species to forbs should be 70% grasses and 30% forbs. The planting (seeding) rate would be determined based on the selected species and required aerial coverage. Depending on the seasonal timing of seeding, planting area slope, and topography, a light straw mulching (or mulch blankets) may be utilized to increase germination rates and disturbed soil stability. Additional compensatory mitigation measures are proposed to offset the expected temporary and/or permanent adverse impacts to fish, wildlife, and their habitat include:

- 1) Revegetation of exposed soil areas using native species;
- 2) Placement of silt fences, if practicable.

During all land disturbing activities, Best Management Practices (BMPs) would be followed to ensure sediment control. The sediment control devices are used primarily for the trapping of sediment as runoff leaves the area caused by storm water induced erosion.

The intent would be to prevent accelerated erosion to the extent practicable. The BMPs would be designed specific to the site and maintained during the construction process. The temporary control devices will be removed after vegetation is established.

Biological Resources

Implementation of the following mitigation measure would ensure that the proposed action would avoid or minimize potential adverse effects to migratory birds and other birds of prey protected under the Migratory Bird Treaty Act (MBTA):

If construction begins during the nesting season for birds of prey and migratory birds (between February 1 and October 1), a preconstruction bird survey for nesting sites will be conducted within the project site no more than 14 days prior to commencement with construction activities. The qualified biologist will document and submit the results of the preconstruction survey in a letter to the ODVA within 30 days following the survey. If no active nests or roosts are identified during the preconstruction survey, then no further mitigation is required. If any active nests are identified during the preconstruction survey within the project site, a buffer zone will be established around the nests. A qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. The biologist will demarcate the buffer zone with construction tape or pin flags within 100 feet of the active nest and maintain the buffer zone until the end of the breeding season or until the

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young have fledged. Guidance from the USFWS will be requested if establishing a 100-foot buffer zone is impractical if the nestlings within the active nest appear disturbed.

Potentially suitable habitat for the ABB is considered present within the action area. Exclusionary factors relative to ABB habitat were not expressly observed and could not be applied. EEC completed an ABB presence/absence survey in August 2019 during which no ABB were captured. The USVA initiated Section 7 ESA consultation with the USFWS on November 5, 2019. The USFWS concurred with the determination for each species with no further requirements.

Cultural Resources

In the event of an inadvertent discovery of archaeological resources shall be subject to Section 106 of the National Historic Preservation Act as amended (36 CFR 800), the Native American Graves Protection and Repatriation Act (NAGPRA)(25 USC 3001 et seq.), and the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa-mm). Specifically, procedures for post review discoveries without prior planning pursuant to 36 CFR 800.13 shall be followed. The purpose of the following mitigation measures is to minimize the potential adverse effect of construction activities to previously unknown archaeological or paleontological resources in the case of inadvertent discovery:

- All work within 50 feet of the potential archaeological find shall be halted until a professional archaeologist, or paleontologist if the find is of a paleontological nature, can assess the significance of the find.
- If any archaeological find is determined to be significant by the archaeologist, or paleontologist as appropriate, then representatives of the Tribe shall meet with the archaeologist, or paleontologist, to determine the appropriate course of action, including the development of a Treatment Plan, if necessary.
- All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to current professional standards.
- If human remains are discovered during ground-disturbing activities on Tribal lands, pursuant to NAGPRA, the Tribal Official and ODVA representative shall be contacted immediately. No further disturbance shall occur until the Tribal Official and ODVA representative have made the necessary findings as to the origin and disposition.
- If the remains are determined to be of Native American origin, the ODVA representative shall notify a Most Likely Descendant (MLD). The MLD is responsible for recommending the appropriate disposition of the remains and any grave goods.

Hazardous Materials

No hazardous materials or recognized environmental conditions were identified within the proposed action area. The PAA would not result in the removal of any oil and gas wells or associated features. All removed materials will be disposed of in accordance with all regulations. Accidental spills of petroleum products or hazardous materials spills could occur during construction of the PAA. The project proponent will require all contractors to report such accidental spills immediately upon notice of occurrence. The contractors will be made responsible for cleanup and/or removal of such spillage as well as contaminated soils, as deemed necessary by the project proponent.

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5.0 AGENCY AND TRIBAL CONSULTATION

Appropriate federal, county, and state resource agencies and tribal nations were contacted to solicit views and provide input on the proposed project resources. Scoping letters requesting comments or pertinent information relative to the proposed project were sent to multiple regulatory and resource agencies as well as native American tribes having potential interest and are provided in *Appendix B*. The comments received with reference to the scoping letters are provided in *Table 7*.

Table 7 - SUMMARY OF COMMENTS

Ms. Jonna Polk, Project Leader U.S. Fish and Wildlife Service 9014 E. 21st Street Tulsa, Oklahoma 74129	
Comment:	<p>Endangered Species Act Species List Species identified for this proposed action include:</p> <p>American Burying beetle (<i>Nicrophorus americanus</i>) Listing Status: Endangered</p> <p>Least tern (<i>Sterna antillarum</i>) Listing Status: Endangered</p> <p>Piping Plover (<i>Charadrius melodus</i>) Listing Status: Threatened</p> <p>Red Knot (<i>Calidris canutus rufa</i>) Listing Status: Threatened</p> <p>Gray Bat (<i>Myotis grisescens</i>) Listing Status: Endangered</p> <p>Indiana Bat (<i>Myotis sodalist</i>) Listing Status: Endangered</p> <p>Northern Long-eared Bat (<i>Myotis septendriionalis</i>) Listing Status: Threatened</p> <p>Ozark Big-eared Bat (<i>Corynorhinus townsendii ingens</i>) Listing Status: Endangered</p>
Response:	Comment noted. The ABB may be impacted by the proposed action. A presence/absence was conducted in August 2019. No ABB were captured. A biological assessment was prepared for the proposed action alternative and is provided in Appendix D. Section 7 ESA consultation was initiated Nov. 5, 2019 and concluded on 1/13/20 with USFWS concurrence with a finding of ‘May Affect – Not Likely to Adversely Affect’ the ABB.
Mr. Jon A. Roberts, Senior Manager Office of External Affairs Oklahoma Department of Environmental Quality P.O. Box 1677 Oklahoma City, Oklahoma 73101	

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Table 7 - SUMMARY OF COMMENTS

Comment:	In response to your request, we have completed an environmental review of air, land and water records for the project listed below. While no environmental concerns under DEQ jurisdiction are anticipated, please be aware of the following regulatory requirement. Prior to beginning any construction activity disturbing more than one acre, you must submit an NOI and obtain authorization under OKR10, construction stormwater.
Response:	
Mr. J.D. Strong, Director Oklahoma Department of Wildlife Conservation PO. Box 53465 Oklahoma City, Oklahoma	
Comment:	Dear Mr. Bednar: This letter is written in response to your request for information regarding impacts to endangered and threatened wildlife in relation to skilled nursing center development in Sequoyah County, OK. Based upon the site description of this project, there are no species listed as species of state concern which may be at or near this location where improvements may be made.
Response:	Comments noted.
Mr. Robert Houston, Regional NEPA Coordinator U.S. Environmental Protection Agency 1445 Ross Avenue, Suite 1200 Dallas, Texas 75202	
Comment:	In regard to the attached letter, the U.S. Environmental Protection Agency, the Region 6 NEPA office, does not anticipate a significant adverse environmental impact from this project. We appreciate the opportunity to review this project. If you have any questions, please contact me at 214-665-2119 or by email at martinez.eli@epa.gov .
Response:	
Mr. Steven Rutherford Sequoyah County Floodplain Administrator 117 S. Oak Street, Suite 112 Sallisaw, Oklahoma 74955	
Comment:	No comment received
Response:	
Dr. Kary Stackelbeck Oklahoma Archeological Survey University of Oklahoma Norman, Oklahoma 73019	
Comment:	No such properties are likely to be encountered and no field surveys are required.
Response:	
U.S. Department of Homeland Security U.S. Federal Emergency Management Agency, Region IV Federal Insurance and Mitigation Administration 800 North Loop 288 Denton, Texas 76209	
Comment:	WE WOULD REQUEST THAT THE COMMUNITY FLOODPLAIN ADMINISTRATOR BE CONTACTED FOR THE REVIEW AND POSSIBLE PERMIT REOUIREMENTS FOR THIS PROJECT. IF FEDERALLY FUNDED. WE WOULD

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Table 7 - SUMMARY OF COMMENTS	
	REQUEST PROJECT TO BE IN COMPLIANCE WITH EO11988 & EO 11990.
Response:	Comment noted.
Mr. Andrew Commer U.S. Army Corps of Engineers 1645 S. 101st East Ave Tulsa, Oklahoma 74127	
Comment:	<p>Please reference your correspondence, dated June 21, 2019, regarding the proposed Veterans Center. The proposed project is located in Section 18, Township 11 North, Range 24 East county, in Sallisaw, Sequoyah county, Oklahoma. If the proposed work would result in the discharge of any dredged or fill material into wetlands or other waters and you anticipate that the proposed work would meet the terms and conditions of Nationwide Permit (NWP) 39 for Commercial and Institutional Developments, please adhere to the applicable reporting or pre-construction notification requirements, as defined in the terms and conditions of the NWP, so that we may assure compliance with Section 404 of the Clean Water Act. You must access the following link to view and print the NWP and state Regional conditions: http://www.swt.usace.army.mil/tMissions/Regulatory/Nationwide-Permit-Program/.</p> <p>-----</p> <p>Letter Dated Jan. 8, 2020 Mr. Dorita Herd Oklahoma Department of Veteran Affairs 2132 NE 36th Street Oklahoma City, OK 73111</p> <p>Dear Ms. Herd: Please reference your correspondence dated October 25, 2019, concerning the construction of the Veterans Center by the Oklahoma Department of Veterans Affairs. The proposed project is located in Section 18, Township 11 North, Range 24 East, in Sallisaw, Sequoyah County, Oklahoma. We have reviewed the submitted data relative to Section 404 of the Clean Water Act.</p> <p>The placement of fill material (0.108 acres), associated with the proposed project falls within the scope of Nationwide Permit (NWP) 39 for Commercial Developments, provided the conditions therein are met.</p>
Response:	Comment noted and NWP issued. See Appendix B
Mr. Brooks Tramell, Wetlands Program Coordinator Oklahoma Conservation Commission 2800 N Lincoln Blvd Oklahoma City, Oklahoma 73105	
Comment:	Your request for a wetland determination for the referenced project, as described in your letter received June 24, 2019 has been reviewed using the Soil Survey of Sequoyah County. There were no hydric soils identified within the project area. However, several areas were identified within or near the project area by National Wetlands Inventory maps, including an area of riverine habitat (R4SBC) and a freshwater pond (PUBHx). Due to the potential impact on wetland resources, an on-site investigation may be needed. Consequently, your request has been referred to the U.S. Army Corps of Engineers for a determination.
Response:	A wetland and waterway delineation was conducted for the proposed action. The report of survey is provided in Appendix C.
Ms. Julie Cunningham, Executive Director	

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Table 7 - SUMMARY OF COMMENTS

Oklahoma Water Resources Board 3800 North Classen Blvd Oklahoma City, Oklahoma 73118	
Comment:	No comment received.
Response:	
Mr. David P. Brown, Associate Director Oklahoma Geological Survey University of Oklahoma 100 East Boyd Street N131 Norman, Oklahoma 73019	
Comment:	No comment received.
Response:	
Mr. Steve Glasgow, State Resource Conservationist U.S. Department of Agricultural Natural Resource Conservation Service Stillwater, Oklahoma 77074	
Comment:	Per your request, we have reviewed the subject project information and determined that the proposed project will not impact any easements, watersheds or prime farmland soils as defined by the Farmland Protection Policy Act.
Response:	Comment noted.
Director Jason Lewis U.S. Geological Survey Oklahoma Water Science 202 N.W. 66 th Street, Building 7 Oklahoma City, Oklahoma 73116	
Comment:	No comment received.
Response:	
Mr. Todd Fagin Oklahoma Biological Survey 111 E. Chesapeake Street Norman, Oklahoma 73019	
Comment:	We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided: Sec. 13-T11N-R23E, Sequoyah County. We found 2 occurrence(s) of relevant species within the vicinity of the project location as described. <i>Nicrophorus americanus</i> , Sequoyah County, Section 30, T11N, R24E and Section 31, T11N, R24E.
Response:	Commented Noted. A biological assessment was prepared for the proposed action alternative and is provided in Appendix D.
Ashley Nealis North Central Regional Fisheries Supervisor Oklahoma Department of Wildlife Conservation 417 S. Silverdale Lane Ponca City, Oklahoma 74604	
Comment:	This letter is written in response to your request for information regarding impacts to

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Table 7 - SUMMARY OF COMMENTS

	<p>endangered and threatened wildlife in relation to skilled nursing center development in Sequoyah County, OK. Based upon the site description of this project, there are no species listed as species of state concern which may be at or near this location where improvements may be made.</p> <p>Please understand that due to time and a personnel constraint, the Oklahoma Department of Wildlife Conservation has not performed an actual field survey of this specific project area; therefore, we can provide only limited site-specific information. The information sent to this office regarding the proposed project has been reviewed and compared against our current records for endangered and threatened species, and our response is based on this review. I will make note that there is a difference between STATE and FEDERALLY listed species.</p> <p>The Oklahoma Department of Wildlife Conservation only oversees STATE listed species, whereas the U.S. Fish and Wildlife Service reserves authority FEDERALLY listed species. For this reason, if you are concerned about species of federal interest, we urge you to consult with the Tulsa Ecological Service Office of the U.S. Fish and Wildlife Service (918-581-7458), as they may have additional information of which we are unaware.</p>
Response:	Comment noted.
	<p>Ms. Jane Lowe, Tribal Historic Preservation Officer Alabama-Quassarte Tribal Town Tribal Historic Preservation Office P.O. Box 187 Wetumka, Oklahoma 73883</p>
Comment:	No comment received.
Response	
	<p>Dr. Andrea Hunter Director & Tribal Historic Preservation Officer The Osage Nation 627 Grandview Avenue Pawhuska, Oklahoma 74056</p>
Comment:	<p>Eagle Environmental Consulting Steven Votaw P.O. Box335 Vinita, OK 74301</p> <p>Dear Mr. Votaw, The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project listed as VA, Eagle Environmental Consulting, Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma. The Osage Nation requests that a cultural resources survey be conducted for this project. In accordance with the National Historic Preservation Act, (NHPA) [54 U.S.C. § 300101 et seq.] 1966, undertakings subject to the review process are referred to in 54 U.S.C. § 302706 (a), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 ofNHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).</p>

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Table 7 - SUMMARY OF COMMENTS

	The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources. The Osage Nation anticipates reviewing and commenting on the survey report for the proposed VA, Eagle Environmental Consulting, Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma. Should you have any questions or need any additional information please feel free to contact me.
Response:	A cultural resource study was completed at the subject site. No resources were found. The Osage Nation provided concurrence letter. See Appendix B.
Ms. Shirley Lookingglass, THPO Apache Tribe of Oklahoma P.O. Box 1220 Anadarko, Oklahoma 73005	
Comment	No comment received.
Response:	
Mr. Gary McAdams Tribal Historic Preservation Officer Wichita and Affiliated Tribes P.O. Box 729 Anadarko, Oklahoma 73005	
Comment:	No comment received.
Response:	
Ms. Virginia Richey, Tribal Historic Preservation Officer Cheyenne and Arapaho Tribes of Oklahoma 100 Red Moon Circle Concho, Oklahoma 73022	
Comment:	On behalf of the Tribal Historic Preservation Office of the Cheyenne and Arapaho Tribes, thank you for the notice of the referenced project. I have reviewed your Consultation request under Section 106 of the National Historic Preservation Act regarding the project proposal and have commented as follows. At this time, it is determined to be categorized as No Adverse Effect; However, if at any time during the project implementation should any change orders occur which would affect the current APE, or if inadvertent discoveries are made that reflect additional evidence of traditional cultural properties (TCP) such as: ceremonial or celebration objects, stone rings, villages, burial mounds, battlefield artifacts, or human remains please cease work immediately, in area of discovery and notify the Cheyenne Arapaho THPO Office within 72 hours. Also, if inadvertent discoveries are made; pursuant to Title 36 Code of Federal Regulation Part 800.13, as amended; you will also be required to make arrangements for a professional archaeologist to visit the site of discovery and assess the potential significance of any artifacts or features that were unearth. If human remains are discovered State and Tribal NAGPRA representatives will be contacted and protocols will be executed.
Response:	
Mr. Phil Cross Tribal Historic Preservation Officer Caddo Nation of Oklahoma P.O. Box 487 Binger, OK 73009	
Comment:	No comment received.

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Table 7 - SUMMARY OF COMMENTS

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Response:	
Principal Chief James Floyd Muscogee (Creek) Nation P.O. Box 580 Okmulgee, Oklahoma 74447	
Comment:	Mr. Bednar: Thank you for contacting the Muscogee (Creek) Nation concerning the Proposed Veterans Center located in Sallisaw, Sequoyah Co., Co., OK. This project is located outside of our area of interest and we defer to other tribes that have been contacted for comment. Should further information or comment be needed, please do not hesitate to contact me at (918) 732-7852 or by email at djproctor@mcn-nsn.gov .
Response:	

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6.0 REFERENCES

- Council on Environmental Quality. 2016. Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews. August 1, 2016.
- Curtis N.M. and W.E. Ham. 1979. Geomorphic Provinces of Oklahoma. In: Geology and Earth Resources of Oklahoma. Education Publication 1. Oklahoma Geological Survey.
- Eagle Environmental Consulting, Inc. 2019. Biological Assessment, Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma.
- Eagle Environmental Consulting, Inc. 2019. Phase 1 Environmental Site Assessment, Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma.
- Eagle Environmental Consulting, Inc. 2019. Waters of the US Delineation, Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma.
- Environmental Protection Agency. 2019. National Multi-Pollutant County Maps, Map of Number of NAAQS by County Designated Nonattainment-US Map, Assessed at <https://www3.epa.gov/airquality/greenbook/mapnpoll.html>
- Miser, H.D. 1954. Geologic Map of Oklahoma. Oklahoma Geological Survey. 2 Sheets.
- Oklahoma Department of Environmental Quality. 2019. Data Viewer. Assessed at <https://gis.deq.ok.gov/maps/>
- Oklahoma Climatologic Survey. 2019. Sequoyah County, Oklahoma Climate Summary.
- Oklahoma Department of Environmental Quality Website. 2019. DEQ Data Viewer. <http://deq.maps.arcgis.com/home/index.html>. Accessed on October 25, 2019.
- Oklahoma Department of Environmental Quality. 2014. The 303(d) list of Category 5 impaired waterbodies in Oklahoma. Accessed at http://www.deq.state.ok.us/WQDNew/305b_303d/index.html.
- Oklahoma Geological Survey Website. 2019. Major Geological Provinces of Oklahoma. <http://www.ou.edu/content/ogs/generalinterest.html>
- Oklahoma Water Resources Board Website. 2019. Interactive Maps and GIS Data. <http://www.owrb.ok.gov/maps/index.php>.
- United States Army Corps of Engineers. 1987. Wetland Delineation Manual, Wetlands Research Program Technical Report, Y-87-1
- United States Environmental Protection Agency. 2019. Website. <http://www.epa.gov/region6/water/swp/ssa/maps.htm>

ENVIRONMENTAL ASSESSMENT

- U.S. Department of Health and Human Resources Website. 2019. Income Ranges Associated with 2019 Poverty Guidelines. Assessed at <https://www.acf.hhs.gov/occ/resource/income-ranges-associated-with-2017-poverty-guidelines>.
- U.S. Environmental Protection Agency Website. 2019. Green Book Map Downloaded. Accessed at <https://www.epa.gov/green-book/green-book-map-download>
- United States Federal Emergency Management Administration Website. 2019. FEMA Flood Map Service Center. <http://msc.fema.gov/portal>.
- United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey for Sequoyah County, Oklahoma. Available online at <http://websoilsurvey.nrcs.usda.gov>.
- U.S. National Park Service. 2019. National Wild and Scenic Rivers System List. <https://www.rivers.gov/>.
- U.S. National Park Service. 2019. Explore Designated Rivers Map. Access at: <https://www.rivers.gov/oklahoma.php>
- U.S. Fish and Wildlife Service. 1985. Determination of the endangered and threatened status for the Piping Plover. Federal Register 50(238): 507020-34
- U.S. Fish and Wildlife Service. 1985. Interior population of the Least Tern determined to be endangered. Federal Register 50: 21784-21792.
- U.S. Fish and Wildlife Service. 1970. Determination of endangered status for the Whooping Crane. Federal Register 35: 8495.
- United States Department of the Interior, U.S. Fish and Wildlife Service. IPAC http://www.fws.gov/southwest/es/oklahoma/sect7.htm#Species_in_OK, received on June 28, 2019.

ENVIRONMENTAL ASSESSMENT

7.0 LIST OF PREPARERS

EAGLE ENVIRONMENTAL CONSULTING, INC.



Steven Votaw, President. Steve has 33 years of experience in biological and ecological studies. Mr. Votaw is the President of Eagle Environmental Consulting, Inc. (20+ years) and has been the Project Manager on various environmental impact statements, environmental site assessments, biological resource evaluations, wetland delineations, and threatened and endangered species surveys. Mr. Votaw was previously a Senior Regulatory Project Manager (10 years) with the U.S. Army Corps of Engineers and Fisheries Technician with the Oklahoma Department of Wildlife Conservation (2 years). Mr. Votaw received a Bachelor of Science degree in Fisheries Management and Wildlife Biology from Northeastern Oklahoma State University with post-graduate work in environmental science.

David M. Bednar Jr., NEPA Coordinator. David has 33 years of multidisciplinary environmental experience focusing on National Environmental Policy Act (NEPA) documentation (EIS, EA and CE) for transportation, communications, and petroleum exploration projects. His experience involved NEPA related projects in the states of Arkansas, Louisiana, Mississippi, West Virginia, Texas, Virginia and Oklahoma. Additional experience includes Phase I environmental site assessments, American Burying Beetle surveys, traffic noise modeling, wetland delineations, groundwater dye tracing in karst terrain, and public outreach. Mr. Bednar received his Bachelor of Science degree in geology and his Master of Science degree in earth science from California University of Pennsylvania.

Jeff London, National Resource and Sr. GIS Analyst. Jeff has years of experience in the environmental field. Mr. London was previously a Lake and Project Manager for the U.S. Army Corps of Engineers (35 years). Mr. London was responsible for managing the O&M, recreation, and natural resource programs. He also served as an outdoor recreation planner and project manager for District-wide recreation, environmental and interagency support programs. Additionally, he uses Geographic Information System (GIS) and CAD technology to analyze and display environmental features in support of biological and ecological studies and NEPA documentation. Mr. London received a Bachelor of Science degree in forestry from Oklahoma State University with postgraduate work in GIS.

Sean Votaw, Field Biologist and GIS Specialist. Sean has 5 years of experience in biological and ecological surveys as well as wetland and waterway delineations and Phase I environmental site assessments. Mr. Votaw received a Bachelor of Science degree in Fish and Wildlife Biology from Northeastern Oklahoma State University.

ENVIRONMENTAL ASSESSMENT

SECTION 8.0 APPLICABLE FEDERAL LAWS AND REGULATIONS

APPLICABLE FEDERAL ENVIRONMENTAL LAWS AND REGULATIONS	
Archeological and Historical Preservation Act	1974, 16 U.S.C. 469, <u>et seq</u>
Clean Air Act, as amended	1990, 42 U.S.C. 7609, <u>et seq</u>
Clean Water Act, as amended	1977, U.S.C. 1251, <u>et seq</u>
Endangered Species Act, as amended	1973, 16 U.S.C. 1531, <u>et seq</u>
Federal Water Project Recreation Act, as amended	1965, 16 U.S.C. 460-1-12, <u>et seq</u>
Fish and Wildlife Coordination Act, as amended	1934, 16 U.S.C. 661, <u>et seq</u>
Land and Water Conservation Fund Act, as amended	1965, 16 U.S.C. 661, <u>et seq</u>
National Historic Preservation Act, as amended	1966, 16 U.S.C. 470a, <u>et seq</u>
National Environmental Policy Act, as amended	1969, 42 U.S.C. 4321, <u>et seq</u>
Native American Graves Protection & Repatriation Act	1990, 25 U.S.C. 3001-13, <u>et seq</u>
Rivers and Harbors Act	1899, 33 U.S.C. 401, <u>et seq</u>
Watershed Protection and Flood Prevention Act	1954, 16 U.S.C. 1001, <u>et seq</u>
Floodplain Management	1977, Executive Order 11988
Protection of Wetlands	1977, Executive Order 11990
Environmental Justice	1994, Executive Order 12898
Environmental Health and Safety Risks	1997, Executive Order 13045
Federal Facilities on Historic Properties	1996, Executive Order 13006
Accommodation of Native American Sacred Sites	1996, Executive Order 13007
Farmland Protection Policy Act	1981, 7 U.S.C. 4201, <u>et seq</u>
National Invasive Species Act	1966, 16 U.S.C. 4701, <u>et seq</u>
Invasive Species	1999, Executive Order 13112
Non-indigenous Aquatic Nuisance Species Prevention and Control Act	1990, 16 U.S.C. 4701, <u>et seq</u>
Water Resources Planning Act	1965
Recreational Fisheries	Executive Order 12962
Protection of Migratory Birds	Executive Order 13186

APPENDIX A

REPRESENTATIVE PHOTOGRAPHS



Photo Location 1



Photo Location 4



Photo Location 2



Photo Location 5



Photo Location 3



Photo Location 6



Photo Location 7



Photo Location 10



Photo Location 8



Photo Location 11



Photo Location 9



Photo Location 12



Photo Location 13



Photo Location 16



Photo Location 14



Photo Location 17



Photo Location 15



Photo Location 18



Photo Location 19



Photo Location 22



Photo Location 20



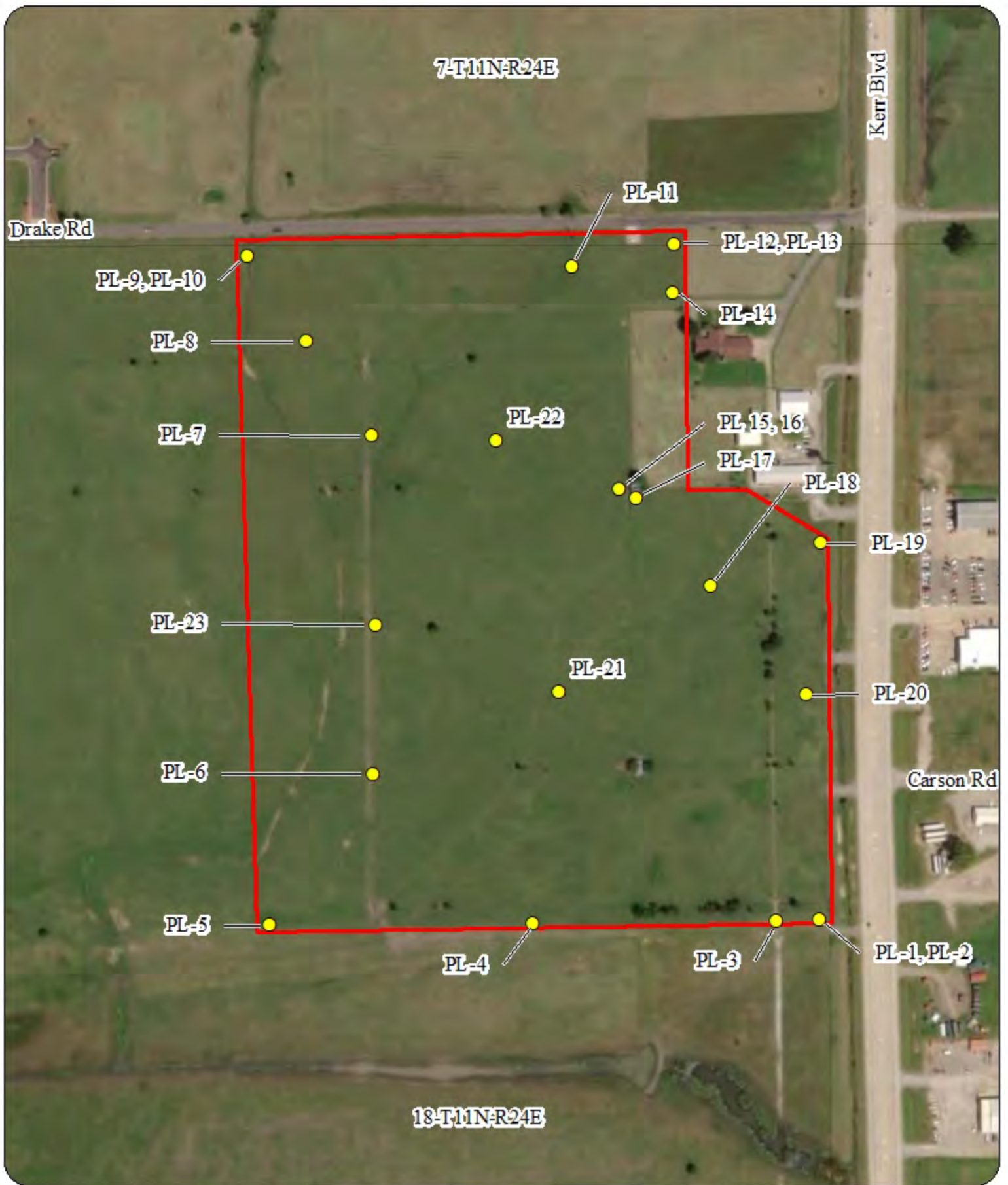
Photo Location 23



Photo Location 21



Wetland Area



Legend

- Project Boundary (indicated by a red line)
- Photo Location (indicated by a yellow dot)



Figure 2
Photo Locations
 Oklahoma Veterans Center
 Sallisaw, Sequoyah County, OK

APPENDIX B

AGENCY COORDINATION



June 21, 2019

Ms. Jonna Polk, Project Leader
U.S. Fish and Wildlife Service
9014 E. 21st Street
Tulsa, Oklahoma 74129

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Ms. Polk,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central “main street” promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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To meet our expedited schedule, we would appreciate your comments by July 12, 2019. Replies should be addressed to David Bednar, Jr. Eagle Environmental Consulting, Inc, P.O. Box 5446, Fort Smith, Arkansas 72913 or by e-mail at david@eagle-env.com. Thank you for your cooperation and prompt response.

Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

U.S. Department of Homeland Security
U.S. Federal Emergency Management Agency, Region IV
Federal Insurance and Mitigation Administration
800 North Loop 288
Denton, Texas 76209

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Sir or Madam,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central “main street” promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. Steven Rutherford
Sequoyah County Floodplain Administrator
117 S. Oak Street, Suite 112
Sallisaw, Oklahoma 74955

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Rutherford,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. Andrew Commer
Chief of Regulatory Division
U.S. Army Corps of Engineers
1645 S. 101st East Ave
Tulsa, Oklahoma 74127

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Commer,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. Jon A. Roberts, Senior Manager
Office of External Affairs
Oklahoma Department of Environmental Quality
P.O. Box 1677
Oklahoma City, Oklahoma 73101

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Roberts,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. Todd D. Fagin
Oklahoma Biology Survey
111 E. Chesapeake Street
Norman, Oklahoma, 73019

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Fagin,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Ms. Julie Cunningham, Executive Director
Oklahoma Water Resources Board
3800 North Classen Blvd
Oklahoma City, Oklahoma 73118

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Cunningham,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. Steve Glasgow, State Resource Conservationist
U.S. Department of Agriculture
Natural Resources of Conservation Service
100 USDA, Suite 206
Stillwater, Oklahoma 77074

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Glasgow,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. Brooks Tramell, Wetlands Program Coordinator
Oklahoma Conservation Commission
2800 N Lincoln Blvd
Oklahoma City, Oklahoma 73105

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Tramell,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central “main street” promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. David P. Brown, Associate Director
Oklahoma Geological Survey
Sarkeys Energy Center
100 E. Boyd St., Suite N131
Norman, Oklahoma 73019

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Brown,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Director Jason Lewis
U.S. Geological Survey Oklahoma Water Science Center
202 NW 66th Street
Oklahoma City, Oklahoma 73116

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Lewis,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central “main street” promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. Robert Houston, Regional NEPA Coordinator
U.S. Environmental Protection Agency
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Houston,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central “main street” promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

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Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. J.D. Strong
Oklahoma Department of Wildlife Conservation
P.O. Box 53465
Oklahoma City, Oklahoma 73152

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Strong,

The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

To assist in the early identification of any potential environmental impacts associated with the proposed project, we request comments from federal, state, and local resource agencies with special expertise in environmental issues. Therefore, we are asking for your input regarding available and pertinent data you might have to assist us in this assessment. We would appreciate any information you might have relating to your specific involvement or field of expertise.

To meet our expedited schedule, we would appreciate your comments by July 12, 2019. Replies should be addressed to David Bednar, Jr. Eagle Environmental Consulting, Inc, P.O. Box 5446, Fort Smith, Arkansas 72913 or by e-mail at david@eagle-env.com. Thank you for your cooperation and prompt response.

Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Ms. Jane Lowe, Tribal Historic Preservation Officer
Alabama-Quassarte Tribal Town
Tribal Historic Preservation Office
P.O. Box 187
Wetumka, Oklahoma 73883

**RE: Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Ms. Lowe,

Eagle Environmental Consulting, Inc. (EEC) has been retained by the Oklahoma Department of Veterans Affairs to prepare an environmental assessment for the proposed Veterans Center. The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

The Alabama-Quassarte Tribal Town has been identified as a Native American Tribe that may have ancestral ties to the project area. Your input and knowledge of traditional religious, cultural issues or areas is highly regarded as part of the environmental study. We ask for your comments regarding available and pertinent data you might have to assist in this assessment.

Replies should be addressed to David Bednar, Jr. Eagle Environmental Consulting, Inc, P.O. Box 5446, Fort Smith, Arkansas 72913 or by e-mail at david@eagle-env.com. We would appreciate your comments by July 12, 2019. Thank you for your cooperation and prompt response.

Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Dr. Andrea Hunter
Director & Tribal Historic Preservation Officer
The Osage Nation
627 Grandview Avenue
Pawhuska, Oklahoma 74056

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Dr. Hunter,

Eagle Environmental Consulting, Inc. (EEC) has been retained by the Oklahoma Department of Veterans Affairs to prepare an environmental assessment for the proposed Veterans Center. The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

The Osage Nation has been identified as a Native American Tribe that may have ancestral ties to the project area. Your input and knowledge of traditional religious, cultural issues or areas is highly regarded as part of the environmental study. We ask for your comments regarding available and pertinent data you might have to assist in this assessment.

Replies should be addressed to David Bednar, Jr. Eagle Environmental Consulting, Inc, P.O. Box 5446, Fort Smith, Arkansas 72913 or by e-mail at david@eagle-env.com. We would appreciate your comments by July 12, 2019. Thank you for your cooperation and prompt response.

Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Ms. Shirley LookingGlass, THPO
Apache Tribe of Oklahoma
P.O. Box 1220
Anadarko, Oklahoma 73005

**RE: Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Ms. LookingGlass,

Eagle Environmental Consulting, Inc. (EEC) has been retained by the Oklahoma Department of Veterans Affairs to prepare an environmental assessment for the proposed Veterans Center. The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

The Apache Tribe of Oklahoma has been identified as a Native American Tribe that may have ancestral ties to the project area. Your input and knowledge of traditional religious, cultural issues or areas is highly regarded as part of the environmental study. We ask for your comments regarding available and pertinent data you might have to assist in this assessment.

Replies should be addressed to David Bednar, Jr. Eagle Environmental Consulting, Inc, P.O. Box 5446, Fort Smith, Arkansas 72913 or by e-mail at david@eagle-env.com. We would appreciate your comments by July 12, 2019. Thank you for your cooperation and prompt response.

Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. Gary McAdams
Tribal Historic Preservation Officer
Wichita and Affiliated Tribes
P.O. Box 729
Anadarko, Oklahoma 73005

**RE: Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. McAdams,

Eagle Environmental Consulting, Inc. (EEC) has been retained by the Oklahoma Department of Veterans Affairs to prepare an environmental assessment for the proposed Veterans Center. The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

The Wichita and Affiliated Tribes has been identified as a Native American Tribe that may have ancestral ties to the project area. Your input and knowledge of traditional religious, cultural issues or areas is highly regarded as part of the environmental study. We ask for your comments regarding available and pertinent data you might have to assist in this assessment.

Replies should be addressed to David Bednar, Jr. Eagle Environmental Consulting, Inc, P.O. Box 5446, Fort Smith, Arkansas 72913 or by e-mail at david@eagle-env.com. We would appreciate your comments by July 12, 2019. Thank you for your cooperation and prompt response.

Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Ms. Virginia Richey, Tribal Historic Preservation Officer
Cheyenne and Arapaho Tribes of Oklahoma
100 Red Moon Circle
Concho, Oklahoma 73022

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Ms. Richey,

Eagle Environmental Consulting, Inc. (EEC) has been retained by the Oklahoma Department of Veterans Affairs to prepare an environmental assessment for the proposed Veterans Center. The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

The Cheyenne and Arapaho Tribes of Oklahoma has been identified as a Native American Tribe that may have ancestral ties to the project area. Your input and knowledge of traditional religious, cultural issues or areas is highly regarded as part of the environmental study. We ask for your comments regarding available and pertinent data you might have to assist in this assessment.

Replies should be addressed to David Bednar, Jr. Eagle Environmental Consulting, Inc, P.O. Box 5446, Fort Smith, Arkansas 72913 or by e-mail at david@eagle-env.com. We would appreciate your comments by July 12, 2019. Thank you for your cooperation and prompt response.

Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Mr. Phil Cross
Tribal Historic Preservation Officer
Caddo Nation of Oklahoma
P.O. Box 487
Binger, OK 73009

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Cross,

Eagle Environmental Consulting, Inc. (EEC) has been retained by the Oklahoma Department of Veterans Affairs to prepare an environmental assessment for the proposed Veterans Center. The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

The Caddo Nation of Oklahoma has been identified as a Native American Tribe that may have ancestral ties to the project area. Your input and knowledge of traditional religious, cultural issues or areas is highly regarded as part of the environmental study. We ask for your comments regarding available and pertinent data you might have to assist in this assessment.

Replies should be addressed to David Bednar, Jr. Eagle Environmental Consulting, Inc, P.O. Box 5446, Fort Smith, Arkansas 72913 or by e-mail at david@eagle-env.com. We would appreciate your comments by July 12, 2019. Thank you for your cooperation and prompt response.

Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



June 21, 2019

Principal Chief James Floyd
Muscogee (Creek) Nation
P.O. Box 580
Okmulgee, Oklahoma 74447

RE: **Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Chief Floyd,

Eagle Environmental Consulting, Inc. (EEC) has been retained by the Oklahoma Department of Veterans Affairs to prepare an environmental assessment for the proposed Veterans Center. The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

The Muscogee (Creek) Nation has been identified as a Native American Tribe that may have ancestral ties to the project area. Your input and knowledge of traditional religious, cultural issues or areas is highly regarded as part of the environmental study. We ask for your comments regarding available and pertinent data you might have to assist in this assessment.

Replies should be addressed to David Bednar, Jr. Eagle Environmental Consulting, Inc, P.O. Box 5446, Fort Smith, Arkansas 72913 or by e-mail at david@eagle-env.com. We would appreciate your comments by July 12, 2019. Thank you for your cooperation and prompt response.

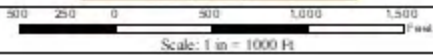
Sincerely,

EAGLE ENVIRONMENTAL CONSULTING, INC.

Steven R. Votaw
Project Manager

David Bednar, Jr
NEPA Coordinator

Attachment



Legend

Project Boundary



Project Location

Oklahoma Veterans Center
Sallisaw, Sequoyah County, OK

KEVIN STITT
GOVERNOR

MATT PINNELL
LIEUTENANT GOVERNOR



Our Land • Our Heritage • Our Future

TREY LAM
EXECUTIVE DIRECTOR

LISA KNAUF OWEN
ASSISTANT DIRECTOR

June 25, 2019

David Bednar, Jr.
Eagle Environmental Consulting, Inc.
PO Box 5446
Fort Smith, AR 72913

**RE: Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Dear Mr. Bednar,

Your request for a wetland determination for the referenced project, as described in your letter received June 24, 2019 has been reviewed using the Soil Survey of Sequoyah County. There were no hydric soils identified within the project area. However, several areas were identified within or near the project area by National Wetlands Inventory maps, including an area of riverine habitat (R4SBC) and a freshwater pond (PUBHx). Due to the potential impact on wetland resources, an on-site investigation may be needed. Consequently, your request has been referred to the U.S. Army Corps of Engineers for a determination. Their address and phone number is:

U.S. Army Corps of Engineers
Mr. Andrew Commer
Chief of Regulatory Branch
2488 E. 81st Street
Tulsa, OK 74137-4290
918/669-7400

If you have any further questions or concerns, please contact me at 405/534-6997.

Sincerely,

A handwritten signature in black ink that reads "Sarah Ballaway".

For

Brooks Tramell
Wetlands Program Coordinator
Water Quality Division

cc: U.S. Army Corps of Engineers
Wetlands File

Proposed location for Oklahoma Veterans Center, Sallisaw, Oklahoma

Source: National Wetlands Inventory





June 27, 2019

David Bednar, Jr.
Eagle Environmental Consulting, Inc.
P.O. Box 5446
Fort Smith, Arkansas 72913

Re: Proposed Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma

Dear Mr. Bednar:

Per your request, we have reviewed the subject project information and determined that the proposed project will not impact any easements, watersheds or prime farmland soils as defined by the Farmland Protection Policy Act.

If I can be of further assistance, let me know.

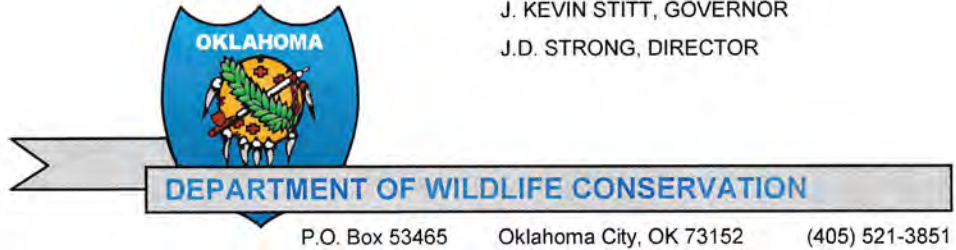
Sincerely,

A handwritten signature in blue ink that reads "Steve Glasgow".

Steve Glasgow
STATE RESOURCE CONSERVATIONIST

WILDLIFE CONSERVATION COMMISSION

Bruce Mabrey CHAIRMAN	Bill Brewster MEMBER
Robert S. Hughes II VICE CHAIRMAN	John D. Groendyke MEMBER
Leigh Gaddis SECRETARY	Rick Holder MEMBER
James V. Barwick MEMBER	John P. Zelbst MEMBER



July 3, 2019

David Bednar, Jr.
Eagle Environmental Consulting, Inc.
P.O. Box 5446
Ft. Smith, AR 72913

RE: Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma

Dear Mr. Bednar:

This letter is written in response to your request for information regarding impacts to endangered and threatened wildlife in relation to skilled nursing center development in Sequoyah County, OK. Based upon the site description of this project, there are no species listed as species of state concern which may be at or near this location where improvements may be made.

Please understand that due to time and a personnel constraint, the Oklahoma Department of Wildlife Conservation has not performed an actual field survey of this specific project area; therefore, we can provide only limited site-specific information. The information sent to this office regarding the proposed project has been reviewed and compared against our current records for endangered and threatened species, and our response is based on this review. I will make note that there is a difference between STATE and FEDERALLY listed species. The Oklahoma Department of Wildlife Conservation only oversees STATE listed species, whereas the U.S. Fish and Wildlife Service reserves authority FEDERALLY listed species. For this reason, if you are concerned about species of federal interest, we urge you to consult with the Tulsa Ecological Service Office of the U.S. Fish and Wildlife Service (918-581-7458), as they may have additional information of which we are unaware.

We appreciate the opportunity to review this project and submit comments. If you have any questions, or if I can be of any assistance, please contact me at either (580)762-2248 or ashley.nealis@odwc.ok.gov.

Sincerely,

Ashley Nealis
North Central Region Fisheries Supervisor
Oklahoma Department of Wildlife Conservation
417 S. Silverdale Lane
Ponca City, OK 74604

November 5, 2019 (by email to OKProjectReview@fws.gov)

U.S. Fish and Wildlife Service
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, OK 74129-1428
(918) 581-7458

Reference: Consultation Code: 02EKOK00-2020-SLI-0311
Event Code: 02EKOK00-2020-E-00721
Project Name: Sallisaw SVH

Subject: Request for concurrence with determination of May Affect–Not Likely to Adversely Affect

Dear Sir or Madam:

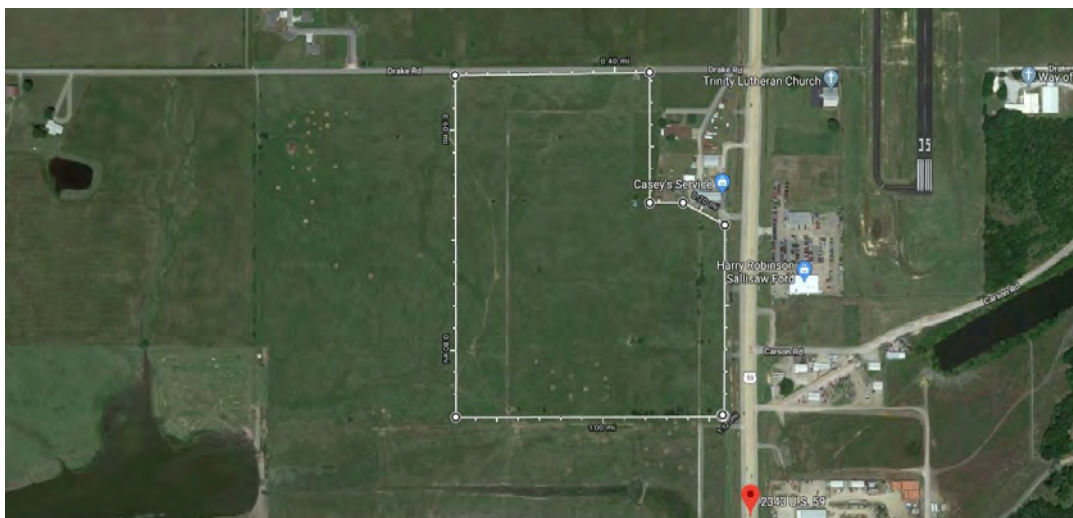
This letter requests U.S. Fish and Wildlife Service (USFWS) concurrence with a determination of **“may affect – not likely to adversely affect”** the American burying beetle for the proposed project for the U.S. Department of Veterans Affairs to provide a grant to the State of Oklahoma to construct and operate a new State Veterans Home (SVH) in Sallisaw, OK.

The following information responds to the **steps listed in the “USFWS Oklahoma On-Line Project Review Process”**

(<https://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Step%201.htm>).

Step 1 – Determine your action area

Location: 45-acre parcel at 2343 S. Kerr Blvd., Sallisaw, OK 74955. Approximately 17 acres would be disturbed to develop the SVH. See also area map (Attachment 1).



Imagery ©2019 Google, Imagery ©2019 Maxar Technologies, USDA Farm Service Agency, Map data ©2019 200 ft

Step 2 – Delineate your action area and obtain an Official Species List

VA obtained an updated Official Species List from IPaC on 11/4/2019 (Attachment 2).

Step 3 – Species conclusion table

and

Step 4 – State coordination

and

Step 5 – Suitable habitat

and

Step 6 - Conclusion

A site survey and biological assessment was prepared in September 2019 and updated in November 2019 (Attachment 3) for all species identified on an Official Species List dated 6/28/201. An updated species list that was obtained on November 4, 2019 (Attachment 2), identified the same species. Occurrence information was provided by the Oklahoma Natural Heritage Inventory; this correspondence is included in the biological assessment. The following table summarizes information on suitable habitat as determined in the biological **assessment and presents VA's Section 7** determination for each species.

Species/Critical Habitat	Habitat Determination	Notes/Documentation	ESA Determination
Gray bat (<i>Myotis grisescens</i>)	No suitable habitat present	Based on July 2019 field survey, as summarized in biological assessment	No effect
Indiana bat (<i>Myotis sodalis</i>)	No suitable habitat present	Based on July 2019 field survey, as summarized in biological assessment	No effect
Northern long-eared bat (<i>Myotis septentrionalis</i>)	No suitable habitat present	Based on July 2019 field survey, as summarized in biological assessment	No effect
Ozark big-eared bat (<i>Corynorhinus (=Plecotus) townsendii ingens</i>)	No suitable habitat present	Based on July 2019 field survey, as summarized in biological assessment	No effect
Least tern (<i>Sterna antillarum</i>)	No suitable habitat present	Based on July 2019 field survey, as summarized in biological assessment	No effect
Piping plover (<i>Charadrius melodus</i>)	No suitable habitat present	Based on July 2019 field survey, as summarized in biological assessment	No effect
Red knot (<i>Calidris canutus rufa</i>)	No suitable habitat present	Based on July 2019 field survey, as summarized in biological assessment	No effect
American burying beetle (<i>Nicrophorus americanus</i>)	Suitable habitat	Based on August 2019 species survey (attached to biological assessment) with no captures of American burying beetles	May affect, not likely to adversely affect

Step 7A – Completion and Submission of Projects with a Federal Nexus

A Project Concurrence Letter is attached, as requested (Attachment 4). This package was submitted by email to OKProjectReview@fws.gov on November 5, 2019.

If you need additional information, please contact me at (202) 632-5352 or by email at christine.modovsky@va.gov.

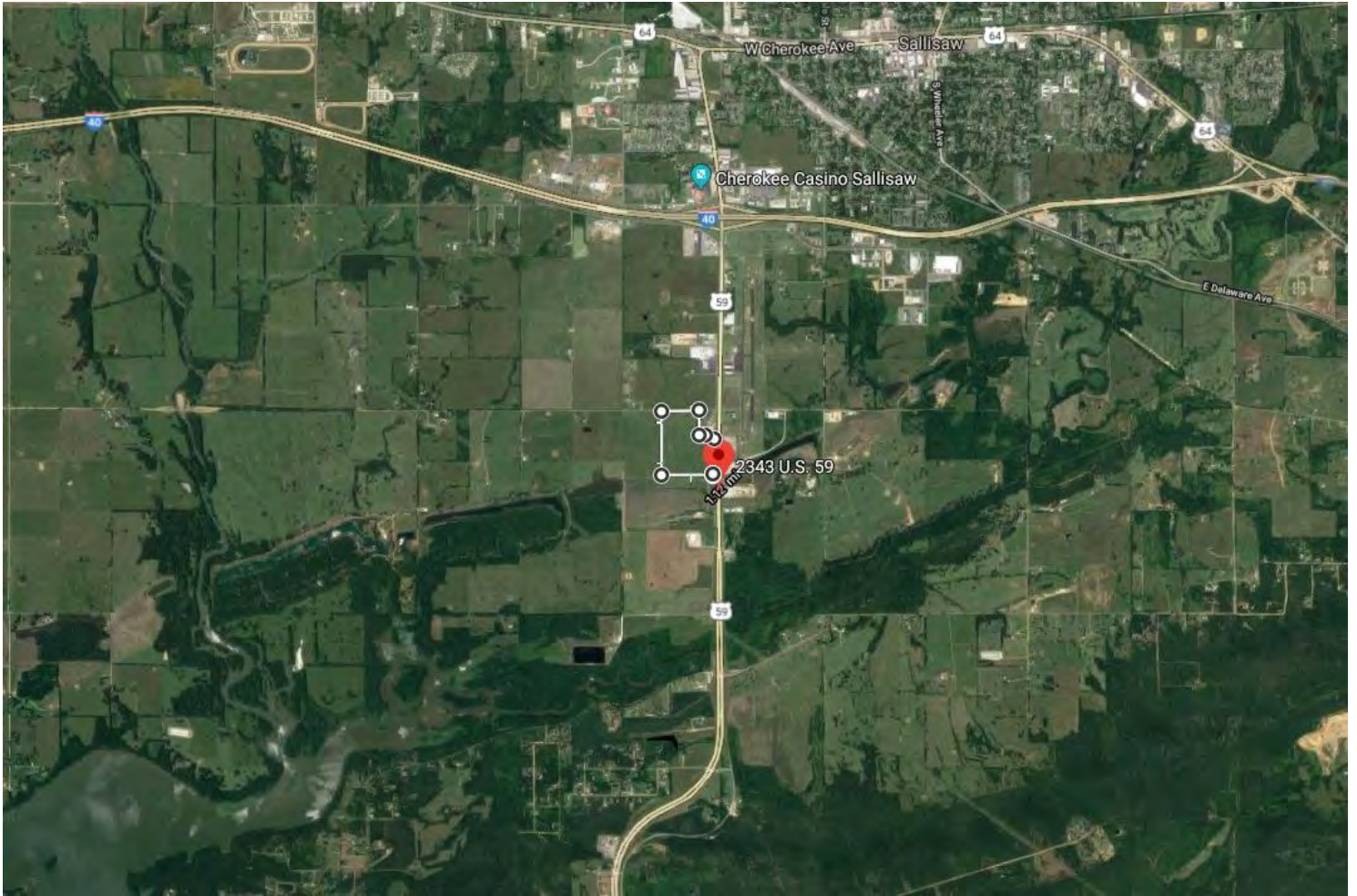
Sincerely,

Christine Modovsky
Environmental Engineer
VA Office of Construction & Facilities Management

cc: Steven Votaw, Eagle Environmental Consulting

Attachment 1: Map
Attachment 2: Official Species List
Attachment 3: Biological Assessment
Attachment 4: Project Review Concurrence Letter

Attachment 1 – Map



Attachment 2 – Official Species List



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, OK 74129-1428
Phone: (918) 581-7458 Fax: (918) 581-7467
<http://www.fws.gov/southwest/es/Oklahoma/>

In Reply Refer To:

November 04, 2019

Consultation Code: 02EKOK00-2020-SLI-0311

Event Code: 02EKOK00-2020-E-00721

Project Name: Sallisaw SVH

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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, that may occur within the boundary of your proposed project and/or may be affected by 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.*).

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 ECOS-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 ECOS-IPaC system by completing the same process used to receive the enclosed list.

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 sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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 projects 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.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. 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>

Non-federal entities conducting activities that may result in take of listed species should consider seeking coverage under section 10 of the ESA, either through development of a Habitat Conservation Plan (HCP) or, by becoming a signatory to the General Conservation Plan (GCP) currently under development for the American burying beetle. Each of these mechanisms provides the means for obtaining a permit and coverage for incidental take of listed species during otherwise lawful activities.

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 (http://www.fws.gov/windenergy/eagle_guidance.html). 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: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

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 through our Project Review step-wise process <http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm>.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

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:

Oklahoma Ecological Services Field Office

9014 East 21st Street

Tulsa, OK 74129-1428

(918) 581-7458

Project Summary

Consultation Code: 02EKOK00-2020-SLI-0311

Event Code: 02EKOK00-2020-E-00721

Project Name: Sallisaw SVH

Project Type: DEVELOPMENT

Project Description: VA proposes to provide a grant to the State of Oklahoma to support construction and operation of a new State Veterans Home.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/35.432167688611074N94.80858068808517W>



Counties: Sequoyah, OK

Endangered Species Act Species

There is a total of 8 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, 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.

Mammals

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened
Ozark Big-eared Bat <i>Corynorhinus (=Plecotus) townsendii ingens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7245	Endangered

Birds

NAME	STATUS
<p>Least Tern <i>Sterna antillarum</i> Population: interior pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8505</p>	Endangered
<p>Piping Plover <i>Charadrius melodus</i> 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. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039</p>	Threatened
<p>Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864</p>	Threatened

Insects

NAME	STATUS
<p>American Burying Beetle <i>Nicrophorus americanus</i> Population: Wherever found, except where listed as an experimental population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/66</p>	Endangered

Critical habitats

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

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 1 to Aug 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

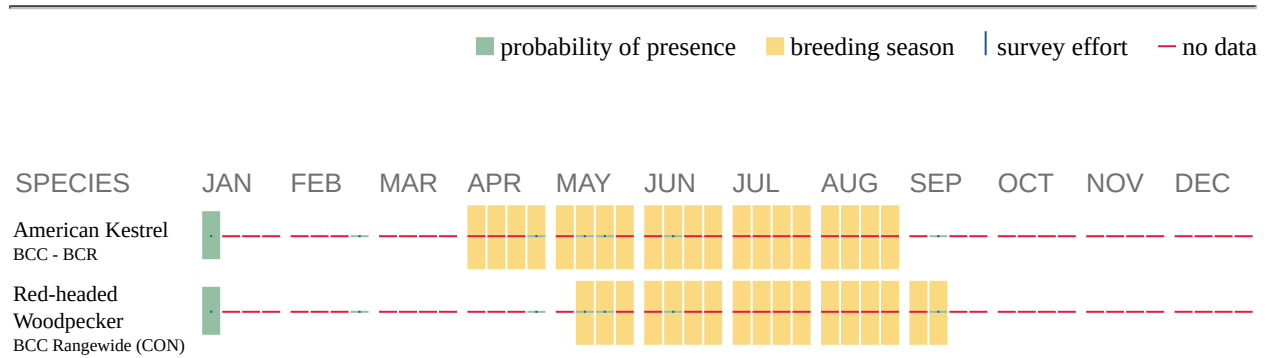
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
 2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
 3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).
-

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- [PEM1C](#)

RIVERINE

- [R4SBC](#)
-

Attachment 3 – Biological Assessment

BIOLOGICAL ASSESSMENT

**Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Prepared for:



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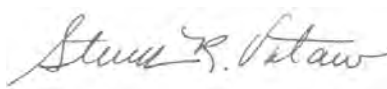
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September 2019; Updated November 4, 2019



**Steven R. Votaw
President**

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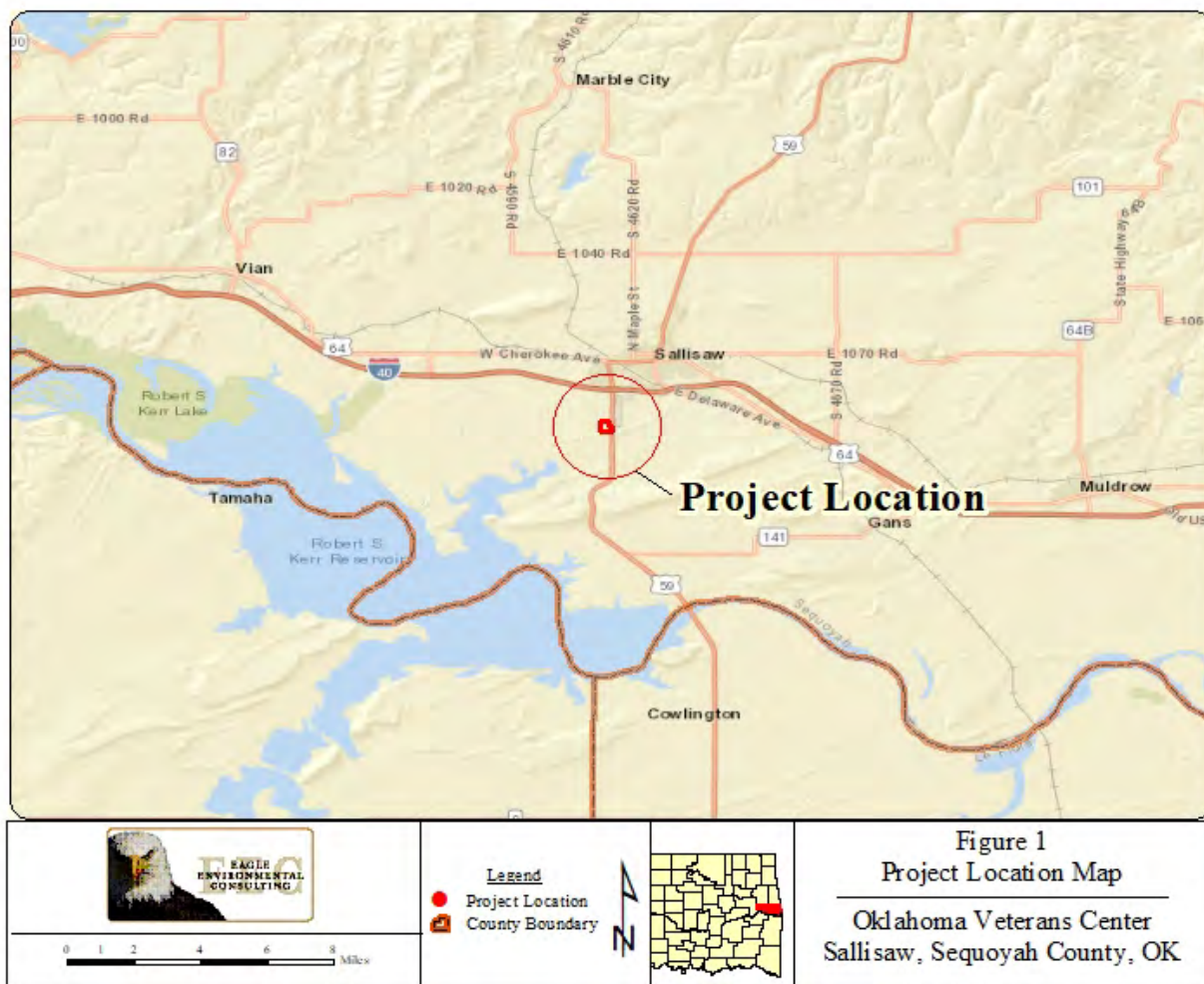
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APPENDIX C	ABB Survey Report

1.0 PROJECT OVERVIEW

1.1 Federal Nexus

A Biological Assessment (BA) was prepared to address the potential effects of the on the federally-listed threatened or endangered (T&E) species present in or known to migrate through Sequoyah County, Oklahoma. Section 7(c) of the Endangered Species Act (ESA) of 1973, as amended, requires that, through consultation with the U.S. Fish and Wildlife Service (USFWS), federal actions do not jeopardize the continued existence of any threatened, endangered, or proposed species or result in the destruction or adverse modification of critical habitat. The federal action agency associated with the proposed project is the U.S. Department of Veterans Affairs (VA). This BA evaluates the potential effects of the proposed project on species that are federally listed under the ESA. The general location map is provided on **Figure 1**.



1.2 Project Description

This BA was prepared to evaluate the potential impacts to federally-listed species which may be present within or utilize the existing habitats adjacent to the proposed project area. Some wildlife species afforded by protection under the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act and others are also addressed herein. The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads.

The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central “main street” promenade. Each resident household wing will contain 18 private residential rooms, serving, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

1.3 Project Area Setting

Project Location

The project is located approximately 2 miles south of Sallisaw, OK on the west side of U.S. Highway 59. The project area is situated on the Sallisaw 7.5-minute USGS topographic map in Section 8, Township 11 North, Range 24 East in Sequoyah County, Oklahoma.

Ecoregion

The property is located in the Arkansas Valley Plains ecoregion (37D) is underlain by Pennsylvanian-age shale, sandstone, and coal. It was once covered by a distinctive mosaic of savanna, woodland, forest, and prairie. Prairie was most extensive on fire-prone sites with moisture deficient soils derived from shale. Today, its undulating plains are mostly pastureland or hay land, whereas its scattered hills and ridges remain wooded; cropland is much less extensive than in the Arkansas River Floodplain (37b), and wooded areas are less extensive than in Ecoregions 36, 37a, and 38. Poultry farming and surface coal mining are other important land uses. Some of the larger streams in Ecoregion 37d still possess sufficient habitat and water quality to support exceptional assemblages of aquatic fauna. Flow in the Poteau River system varies widely; during droughts, tributaries stop or nearly stop flowing, but after heavy precipitation, both flow and turbidity increase, and flooding commonly occurs.

Physiography

Undulating plains interrupted by scattered hills, and ridges in the structural Arkoma Basin. Streams have long, wide, deep pools that are occasionally interrupted by short, high gradient riffles. Riffles generally have gravel substrates. During protracted droughts and during most summers, streams typically have little or no flow. In streams that cease flowing, pool areas may be 0.4 miles long and over 10 feet deep.

Geology

Mantled by Quaternary alluvium, terrace deposits, and sandy loam to silty clay loam decomposition residuum (containing sandstone fragments and shale chips). The area is mostly underlain by Pennsylvanian-age shale and sandstone with intermixed coal seams.

Vegetation

The natural vegetation types include cross timbers, oak–hickory–shortleaf pine forest, and mosaic of tall grass prairie dominated by big bluestem, little bluestem, switchgrass, and Indiangrass, and oak–hickory forest. Native on fire-prone plains with moisture deficient soils: scattered prairies with a few large oaks. Wetland areas are present in upland depressions and on flats with impermeable, clay-rich soils or pans. Lush deciduous forests are native along streams. The undulating upland areas also exhibit extensive savanna and woodland composed of post oak, blackjack oak, southern red oak, hickory, and understory grasses are native. The rugged areas more are dominated by post oak, black oak, white oak, hickories, maple, beech, elm, shortleaf pine, planted loblolly pine, and increasingly, eastern redcedar occur. Floodplains forests generally contain eastern cottonwood, sycamore, southern red oak, green ash, hackberry, pecan, sweetgum, black willow, willow oak, white oak, and water oak.

Land Cover and Land Use

Since a large portion of this ecoregion has been converted to agriculture, the wooded areas are largely restricted to riparian areas, poorly-drained sites, and steepest slopes. Pastureland and hay land are extensive but cropland is limited. Poultry and livestock farming are important land uses. Soybeans, grain sorghum, wheat, and limited amounts of corn are typically the most frequently planted crops. Natural gas production, logging, and surface coal mining occur.

2.0 FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

The official list of threatened and endangered species potentially present within or adjacent to the action area was generated for the proposed project by the United States Fish and Wildlife Service's on-line Information, Planning, and Conservation (IPAC) decision support system (USFWS, 2019). The federally-listed species and associated habitat requirements identified that may be affected by the proposed project include the American burying beetle, least tern, red knot, piping plover, gray bat, Indiana bat, Ozark big-eared bat, and the Northern Long-eared Bat (NLEB) as shown in **Table 1**. The official species list was obtained from the USFWS and provided in *Appendix A*. The Oklahoma Biological Survey's Natural Heritage Inventory (ONHI) was also contacted to obtain any occurrence information on federal and state threatened, endangered or candidate species within or near the project area and is also provided in *Appendix A*. Two occurrences for the American burying beetle were identified in the vicinity of the project area. No other known species presence records within or near the proposed action area were provide or known.

Identification of the dominant plant species relative to the habitat requirements for each listed species was performed through random sampling within the dominant and homogenous vegetation areas. The primary homogenous habitats within the action area were documented and evaluated to determine if the habitat requirements exist for the respective threatened or endangered species as having the potential to be present in or migrate through Sequoyah County. No critical habitat for any of the listed species has been identified within or near the proposed project area.

3.0 ENVIRONMENTAL BASELINE

3.1 Ecological Processes and Conditions

Soils

The Natural Resources Conservation Service (NRCS) Web Soil Survey was used to identify soil units within the study area NRCS (2019). Three soil units identified were identified within the proposed action. The mapped soil series include Stigler silt loam, 0 to 1 percent slopes, Kanima very gravelly silty clay loam, 5 to 30 percent slopes, and Vian silt loam, 1 to 3 percent slopes.

Climate

The climate is and mesothermal (Oklahoma Climatological Survey, 2019). The average annual precipitation varies from 42 in the north and to 48 inches in the southern part of the county. Mean minimum temperatures in January is 26 degrees while mean maximum temperatures reach 91 degrees in July.

Vegetation

The NEPA study area is approximately 40 acres in size however the entire project area will not be affected. The dominant species identified included fescue (*Festuca pratensis*), Bermuda grass (*Cynodon dactylon*), white clover (*Trifolium repens*), annual ragweed (*Ambrosia artemisiifolia*), Johnson grass

(*Sorghum halapense*), yellow hop clover (*Trifolium aureum*), mare’s tail (*Conyza canadensis*), hedge parsley (*Torillis arvensis*), smartweed (*Persicaria hydropiper*), green flat sedge (*Cyperus virens*), late flowering boneset (*Eupatorium serotinum*), horse nettle (*Solanum carolinense*), thistle (*Cirsium sp.*), barnyard grass (*Echinochloa crus-galli*), Dallis grass (*Paspalum sp.*), chufa (*Carex esculantus*), Franks sedge (*Carex frankii*), water primrose (*Ludwigia decurrens*), creeping spikerush, (*Eleocharis palustris*), and flat-stemmed spikerush (*E. compressa*). The dominant woody and vine vegetation consisted of American elm (*Ulmus americana*) and sugarberry (*Celtis laevigata*).

3.2 Species Habitat Within the Action Area

The survey area was canvassed to identify and describe the habitat for the listed T&E species that could be present within the proposed action area. The federally listed species and their habitat requirements are provided below.

Table 1 - Federally Listed T&E Species			
Species/Critical Habitat	Listing Status	Habitat Requirements	Status within Action Area
American Burying Beetle (<i>Nicrophorus americana</i>)	Endangered	Breeding habitat: undisturbed, mature oak-hickory forests with substantial litter layers and deep, loose soils over grasslands or bottomland forests. Feeding habitat: undisturbed grasslands, grazed pasture, riparian zones, and oak-hickory forest, as well as a variety of various soil types.	Suitable habitat was identified within the project area. A presence/absence survey was conducted in Aug 2019. No ABB were captured.
Least Tern (<i>Sterna antillarum</i>)	Endangered	Islands or sandbars along large rivers, mostly clear of vegetation for nesting and loafing and with water nearby for fishing.	No suitable nesting or foraging areas were observed. Based on the planned construction activities, Least terns should not be affected.
Piping Plover (<i>Charadrius melodus</i>)	Threatened	Migratory stopover habitat includes sparsely vegetated sandy or gravelly shorelines and islands associated with the major river systems. Species does not nest in OK.	No suitable foraging habitat present within the project corridor.
Red Knot (<i>Calidris canutus rufa</i>)	Threatened	Coastal areas, mudflats on lakes or reservoirs, and may use sandbars along the major river systems for forage and resting areas. Species does not nest in OK.	No suitable habitat was identified within the project corridor.
Ozark Big-eared Bat (<i>Corynorhinus tomwensdii ingens</i>)	Endangered	The Ozark Big-eared Bat lives in limestone caves found in forested portions of the Ozark Highlands. Most of this bat population occurs in Adair, Cherokee and Delaware counties in Oklahoma, and in Arkansas, and historically in southwest Missouri. These bats feed above the tree canopy and in gaps and clearing within the forest, usually associated with oak and oak-hickory forest types.	Suitable habitat was not identified within the proposed action area.
Gray Bat (<i>Myotis grisescens</i>)	Endangered	Limestone caves. Forage on aquatic and terrestrial insects near streams and rivers.	The proposed project lies within the foraging habitat range for the gray bat. No caves are present in or near the project area.
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened	Forested areas containing live and dead trees with exfoliating, curling, or sloughing bark. Forages on primarily terrestrial insects among canopy and interior forest openings.	Potentially suitable roosting, maternity, and/or foraging habitat was not identified within or adjacent to the study area.
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	Forested areas containing live and dead trees with exfoliating, curling, or sloughing bark. Forages on aquatic and terrestrial insects near streams and rivers and forest openings.	Potentially suitable roosting, maternity, and/or foraging habitat was not identified within or adjacent to the study area.

USFWS, 2019

American Burying Beetle

The American Burying Beetle (ABB) is a large beetle with a shiny black appearance with four orange-red spots on the wing covers (elytra). A large red spot on the pronotum of the beetle is indicative of the species. The habitat requirements for this beetle are not fully known; however, the ABB is considered a habitat generalist and is known to occupy a diverse range of habitats. Habitats associated with the ABB include open grasslands, forests, as well as transitional areas. Suitable habitat was identified with the proposed action area. EEC performed a presence/absence survey in August 2019 during which no ABB were captured.

Least Tern

The least tern is a small migratory shorebird that breeds along inland river systems in Oklahoma. The least tern typically arrives in April and occupies breeding sites from June through August and forages on small fish in shallow water along sandbars associated within large rivers and reservoirs. Nesting habitat includes bare and sparsely vegetated sand and gravel bars. Currently, they occur as small remnant colonies throughout their former range. In Oklahoma, the least tern nests along the Red River, Arkansas River, Cimarron River, and Canadian River, as well as at the Salt Plains National Wildlife Refuge (USFWS, 1985). No suitable foraging habitat or nesting areas for the least tern were observed within the action area.

Piping Plover

The piping plover is a small, stocky, sandy-colored bird resembling a sandpiper. The habitat requirements for the piping plover include sandy shorelines on lakes and sandbars along the major river systems for forage and resting areas. The piping plover is migratory in Oklahoma in the spring and fall. They do not generally nest in Oklahoma. Plovers often gather in groups on undisturbed beaches prior to their southward migration. By mid-September, both adult and young plovers will have departed for their wintering areas (USFWS, 2011). No suitable habitat for the piping plover was observed within the action area.

Red Knot

The Red Knot is a rather large sandpiper that breeds in far northern Canada on tundra from May to June. Fall migrations typically begin in late July through mid-August where the species may travel as far as the coasts of South America. Migratory habitat requirements for the red knot include coastal areas, mudflats on lakes or reservoirs, and may use sandbars along the major river systems for forage and resting areas. This species is considered migratory in or through Oklahoma in the spring and fall. No potentially suitable habitat for this species was identified.

Gray Bat

The Gray bat is a small bat with grayish-brown fur and a slightly wooly appearance. Its body is approximately five inches in length and its wingspan is 11 to 13 inches. Gray Bats feed on a variety of small, night-flying insects. Gray bats live in colonies within limestone caves in the Ozark region and occupy caves throughout the year. However, different caves are occupied during the summer and winter months. Gray Bats forage over forested habitats, waterways, and wetlands and are known to forage up to a distance of 20 miles from caves. The Gray Bat is a migratory species present in Oklahoma during the late spring and summer months. In the summer, nine colonies of Gray Bats are known to occupy caves in forested habitats in Ottawa, Delaware, Cherokee and Adair counties. In the fall, these bats migrate to the east and hibernate within caves in Arkansas and Kentucky. No known caves or summer roost areas for this species are known present or near the project area. Suitable foraging habitat may be present within the proposed action area associated with the identified waterway and wetland areas. However, based on the lack of known species occurrence records, no identified or known caves or summer roost areas, and marginally suitable foraging habitat, no impacts to this species are anticipated.

Northern Long-eared Bat

The Northern long-eared bat (NLEB) is a small bat associated with mature, interior forest environments. Unlike most other bats, the northern long-eared forages along and within wooded hillsides and ridgelines. This species is also much more solitary in its roosting and hibernating habits than are other bats, preferring to hide in tight crevices and holes over hanging out in open areas within caves. Sometimes, only the nose and ears of northern long-eared bats are visible when it hibernates. Northern long-eared bats are a migratory species found in Oklahoma during the late spring, summer, and early fall months. Suitable roosting and/or foraging habitat was not observed within the proposed action area.

Indiana Bat

The Indiana bat is a small bat, less than 2 inches in length, with dark gray to brownish black fur. Characteristics that help distinguish it from similar species include a pinkish nose, small hind feet with sparse, short hairs that do not extend beyond the toes, and a calcar (the spur extending from the ankle) that has a slight keel. For hibernation, Indiana bats prefer limestone caves with stable temperatures of 39 to 46 degrees F. Few caves meet the specific roost requirements of the species. Summer habitat requirements are not completely known for the Indiana bat. Although floodplain and riparian forests are important habitats for both foraging and roosting, other habitats are used. Indiana bats typically roost in dead trees and/or under loose or furling bark during the summer. Traditional forage areas or features associated with this species include forested uplands, forested fence rows, open areas between forested areas, and riparian zones. are a migratory species found in Oklahoma during the late spring, summer, and early fall months. Similar to the NLEB, suitable roosting and/or foraging habitat was not observed within the proposed action area.

Ozark big-eared Bat

The Ozark big-eared bat is an obligate cave species associated with limestone karst features found in forested portions of the Ozark Highlands. Most of this bat population occurs in Adair, Cherokee and Delaware counties in Oklahoma, and in Arkansas, and historically in southwest Missouri. These bats feed above the tree canopy and in gaps and clearings within the forest, usually associated with oak and oak-hickory forest types. Potentially suitable habitat for this bat is not present adjacent to or within the project area. The presence of this species is not anticipated.

Bald Eagle

The Bald Eagle (*Haliaeetus leucocephalus*) is a raptor protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Activities that would disturb eagles are prohibited under the Bald and Golden Eagle Protection Act. "Disturb" means to agitate an eagle to the degree that causes or is likely to (1) cause injury, (2) interfere with breeding, feeding or sheltering behavior, or (3) nest abandonment. The bald eagle prefers large trees or high cliffs along large waterways for perching and nesting purposes. Fish is the preferred diet of eagles, but they also eat small mammals, waterfowl, turtles and dead animals. Preferred foraging areas include quiet coastal areas, rivers or lakeshores with large tall trees. Methods used to identify suitable habitat included investigations of waterbodies potentially used for foraging, large nesting or perching trees adjacent to such water features and other areas which Bald Eagles are known to use. Potential or suitable habitat was identified along the Arkansas River. However, no Bald Eagles or nests were observed during the site visit. This project is not expected to impact the Bald Eagle.

Migratory Birds

Migratory bird species are protected under the Migratory Bird Treaty Act (MBTA) as amended. The MBTA prohibits the take of any migratory bird without authorization for the USFWS. Marginally suitable

nesting habitat was present for structure nesting (trees) species and potentially suitable habitat for ground nesting species was considered present. However, no nests were observed within the study area.

Survey Area Assessment

On July 23, 2019, a field survey was conducted within the proposed action area. The habitats were evaluated using pedestrian transects to identify the different types of vegetative communities. Four habitat assessment sample sites (HASS) were utilized to identify and describe the dominant habitats within the action area to determine if any of the federally-listed T&E species or their habitat were present. The descriptions for each are provided below. Soil characteristics were also investigated for confirmation of accurate mapping. Photographs of the project area are provided at *Appendix C*. Habitat assessment sample site (HASS) locations are shown on *Figure 2 and Figure 3*.

HASS-1 and 4 are associated with an open field area utilized for livestock grazing. The range condition is described as poor associated with improved grasses rather than native species. The dominant plants included chufa (*Carex esculentus*), Bermuda grass (*Cynodon dactylon*), annual ragweed (*Ambrosia artemisiifolia*), fescue (*Festuca pratensis*), and Dallis grass (*Paspalum sp.*). Except for the ABB, no habitat for any of the listed species was observed.

HASS-2 was situated adjacent to an emergent, seasonally inundated, herbaceous wetland area dominated by smartweed (*Persicaria piperoides*) and barnyard grass (*Echinochloa crus-galli*). No habitat for any of the listed species was observed except for the ABB and possible Gray bat foraging.

HASS-3 was associated with an ephemeral, shallow, channelized and small waterway with no wooded riparian zone. The dominant plant species included water primrose, Franks sedge, creeping spike rush. Except for marginally suitable foraging habitat for the Gray bat, no suitable habitat for any of the listed species was observed at this location. Potential ABB habitat would be present along the waterway perimeter.

4.0 ANALYSIS OF EFFECTS

4.1 Direct Effects

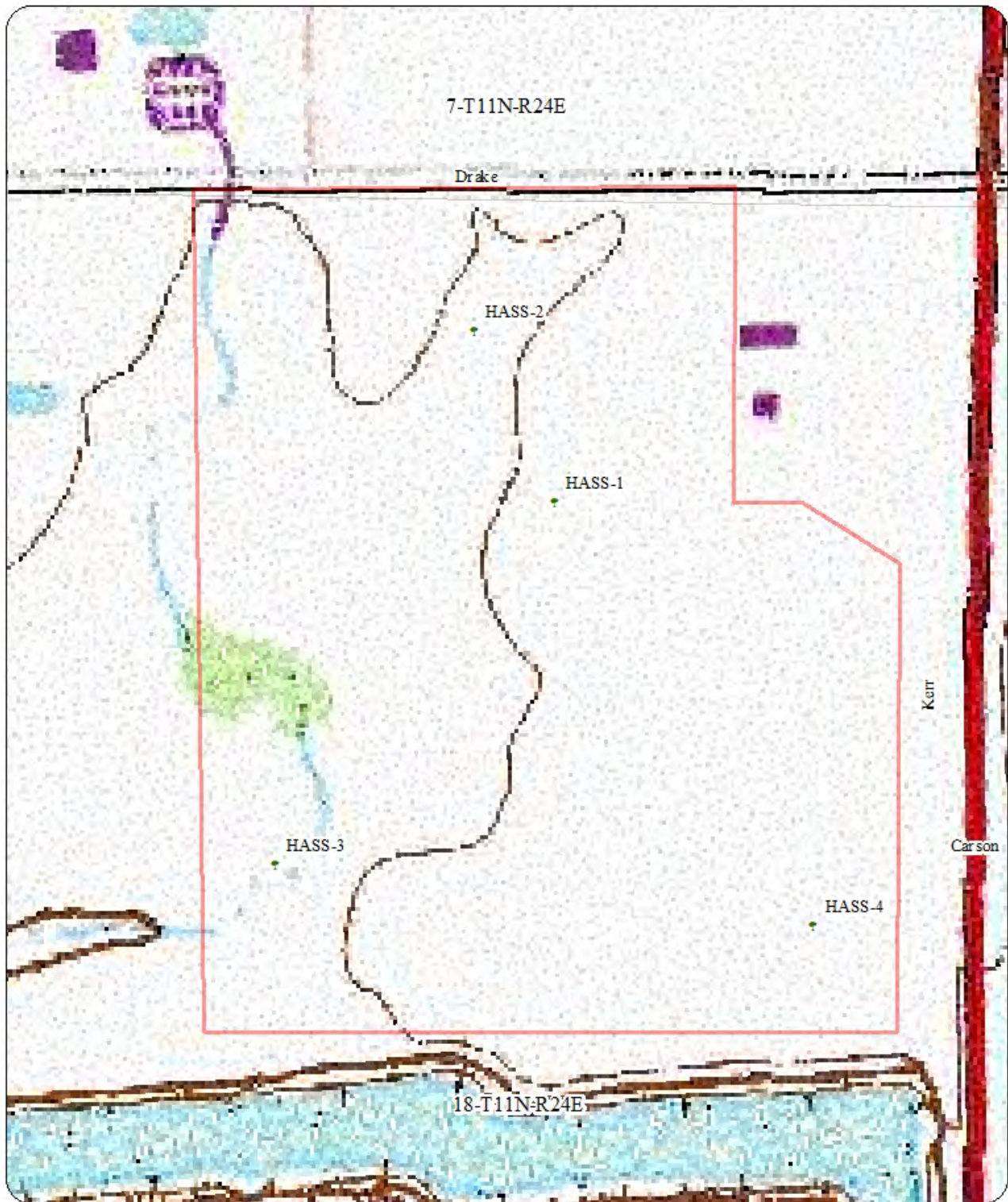
Direct effects within the action area would consist of permanent and temporary impacts. Permanent impacts would be associated with conversion of herbaceous habitat areas to paved surfaces, buildings, and associated landscaped areas. The primary habitat disturbance would be associated with site preparation activities in advance of roadway, parking area, building and associated infrastructure features. Temporary effects would occur may occur on the areas adjacent to permanent structures or features, however such areas would be graded to match existing adjacent ground surface contours, seeded and/or allowed to re-vegetate.

4.2 Indirect Effects

No other development associated with proposed project is expected. No uses or projects are anticipated that would be tangential to the proposed. Provided no additional habitat disturbances are undertaken, the proposed project should have no indirect effects on the listed species.

4.3 Interrelated and Interdependent Actions and Activities

No interrelated or interdependent actions are expected or planned as the result of the proposed project. The termini on either end of the proposed project area have already been constructed.





Legend
□ Project Boundary
● HASS Location



Figure 2
Habitat Assessment Sample
Site Location Map
Biological Assessment
Oklahoma Veterans Center
Sallisaw, Sequoyah County, OK



 Scale: 1 in = 1000 ft	<p>Legend</p> <ul style="list-style-type: none">Project BoundaryHASS Location	<p>Project Vicinity Map</p> 	<p>Figure 3 Habitat Assessment Sample Site Location Map</p> <p>Biological Assessment Oklahoma Veterans Center Sallisaw, Sequoyah County, OK</p>
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5.0 CONCLUSION

Threatened and Endangered Species

Suitable habitat is present for the American Burying Beetle (ABB) within the action area. The determination of effect will be May Affect, unlikely to adversely affect. Based on this determination, EEC conducted an ABB presence/absence survey in August 2019. The survey resulted in a negative collection of ABB. The USFWS proposed to down-list species from endangered to threatened in May 2019. The final decision is not expected until at least May 2020, until such time all survey protocols and consultation measures remain effective pursuant to the current guidance for the species.

Based on the lack of suitable habitat, the proposed action should have a no effect determination for the Least Tern, Piping Plover, Red Knot, Northern long-eared bat, Gray bat, and Ozark big-eared bat.

The Species Conclusion Table (*Table 2*) below provides the documentation and rationale relative to the potential affect to each of the federally-listed species:

Table 2 Species Conclusion Table			
Species/Critical Habitat	Habitat Determination	USFWS Consultation	ESA Determination
American Burying Beetle	Suitable Habitat	Concurrence with Determination of Effect Required	May Affect, not likely to adversely affect (No ABB Captured during Survey)
Least Tern	No Suitable Habitat Present	Not Required	No Effect
Piping Plover	No Suitable Habitat Present	Not Required	No Effect
Red Knot	No Suitable Habitat Present	Not Required	No Effect
Whooping Crane	No Suitable Habitat Present	Not Required	No Effect
Gray Bat	No Suitable Habitat Present	Not Required	No Effect
Northern Long eared Bat	No Suitable Habitat Present	Not Required	No Effect
Indiana Bat	No Suitable Habitat Present	Not Required	No Effect
Ozark big-eared Bat	No Suitable Habitat Present	Not Required	No Effect

Bald Eagle

Records for bald eagle presence at or near the project area have not been documented. No suitable habitat was identified within the action area for the bald eagle. No bald eagles or nests were observed during the site visit. This project is not expected to impact the bald eagle.

Migratory Birds

No effectively suitable nesting habitat is present within the project area. No bird nests were observed within the area planned for the proposed action. No active swallow nests were observed within the action area. Construction is encouraged to occur between September 15 and March 31 to avoid the nesting season to avoid potential impact to migratory birds. Provided construction can be conducted within the non-nesting season, no adverse effects are anticipated to migratory or non-migratory birds.

6.0 REFERENCES

Fagin, T. 2019. Written response from the Oklahoma Natural Heritage Inventory. July 2019.

Natural Resources Conservation Service. 2019. Web Soil Survey.

United States Fish and Wildlife Service. 2019. Information, Planning, and Conservation (IPAC) decision support system.

Woods, A.J., J.M. Omernik, D.R. Butler, J.G. Ford, J.E. Henley, B.W. Hoagland, D.S. Arndt, and B.C. Moran. 2005. Ecoregions of Oklahoma (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,250,000).

APPENDIX A

USFWS and ONHI Records



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, OK 74129-1428
Phone: (918) 581-7458 Fax: (918) 581-7467
<http://www.fws.gov/southwest/es/Oklahoma/>

In Reply Refer To:
Consultation Code: 02EKOK00-2019-SLI-2523
Event Code: 02EKOK00-2019-E-06113
Project Name: Proposed Oklahoma Veterans Center

June 28, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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, that may occur within the boundary of your proposed project and/or may be affected by 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.*).

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 ECOS-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 ECOS-IPaC system by completing the same process used to receive the enclosed list.

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 sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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 projects 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.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. 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>

Non-federal entities conducting activities that may result in take of listed species should consider seeking coverage under section 10 of the ESA, either through development of a Habitat Conservation Plan (HCP) or, by becoming a signatory to the General Conservation Plan (GCP) currently under development for the American burying beetle. Each of these mechanisms provides the means for obtaining a permit and coverage for incidental take of listed species during otherwise lawful activities.

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 (http://www.fws.gov/windenergy/eagle_guidance.html). 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: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

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 through our Project Review step-wise process <http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm>.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

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:

Oklahoma Ecological Services Field Office

9014 East 21st Street

Tulsa, OK 74129-1428

(918) 581-7458

Project Summary

Consultation Code: 02EKOK00-2019-SLI-2523

Event Code: 02EKOK00-2019-E-06113

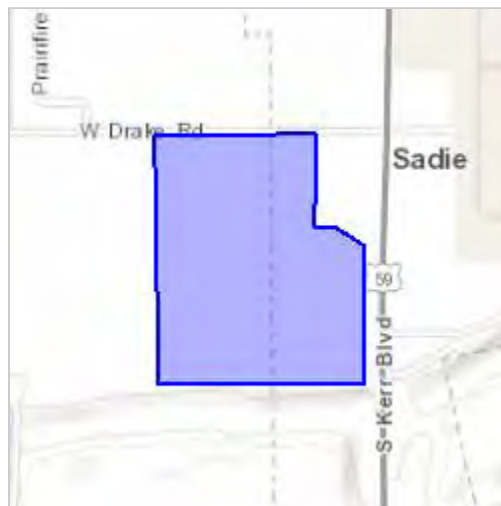
Project Name: Proposed Oklahoma Veterans Center

Project Type: DEVELOPMENT

Project Description: The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veterans Center will incorporate eleven residential wings arranged along a central “main street” promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/35.43207215900013N94.80858111748617W>



Counties: Sequoyah, OK

Endangered Species Act Species

There is a total of 8 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, 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.

Mammals

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened
Ozark Big-eared Bat <i>Corynorhinus (=Plecotus) townsendii ingens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7245	Endangered

Birds

NAME	STATUS
<p>Least Tern <i>Sterna antillarum</i> Population: interior pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8505</p>	Endangered
<p>Piping Plover <i>Charadrius melodus</i> 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. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039</p>	Threatened
<p>Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864</p>	Threatened

Insects

NAME	STATUS
<p>American Burying Beetle <i>Nicrophorus americanus</i> Population: Wherever found, except where listed as an experimental population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/66</p>	Endangered

Critical habitats

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

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 1 to Aug 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

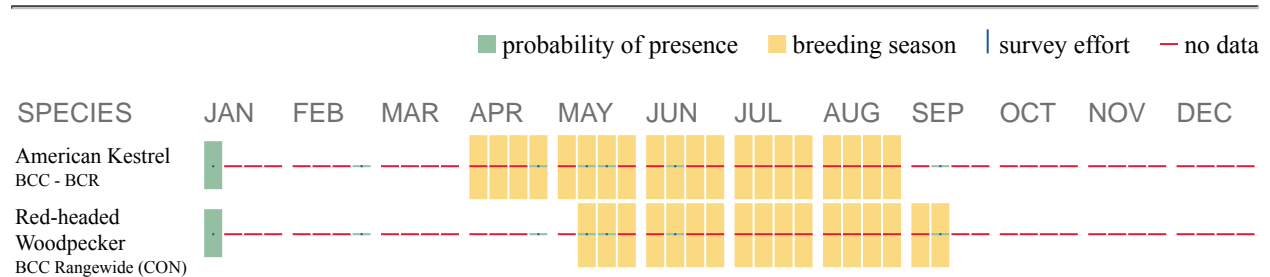
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as

occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC

species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location?”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- [R4SBC](#)
-

OBS Ref. 2019-332-BUS-EAG

Dear Mr. Bednar,

Jun. 25, 2019

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 13-T11N-R23E, Sequoyah County

We found 2 occurrence(s) of relevant species within the vicinity of the project location as described.

Species Name	Common Name	Federal Status
<i>Nicrophorus americanus</i>	American burying beetle	Endangered
County	TRS	Count
Sequoyah	Sec. 30-T11N-R24E	1
Sequoyah	Sec. 31-T11N-R24E	1

Additionally, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI, guide to ranking codes for endangered and threatened species:

http://vmpincol.ou.edu/heritage/ranking_guide.html

Information regarding the Oklahoma Natural Areas Registry:

http://www.oknaturalheritage.ou.edu/registry_faq.htm

Todd Fagin
Oklahoma Natural Heritage Inventory
(405) 325-4700
tfagin@ou.edu

APPENDIX B

REPRESENTATIVE HABITAT PHOTOS



HASS-1



HASS-3



HASS-2



HASS-3



HASS-2



HASS-4



HASS-4

APPENDIX C

ABB Survey Report

AMERICAN BURYING BEETLE SURVEY

**Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma**

Prepared for:



**2132 NE 36th
Oklahoma City, OK 73111
Phone: 405-523-4000**

Prepared by:



**P.O. Box 335
Vinita, Oklahoma 74301
918-272-7656**

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918-697-3936**

September 2019



**Steven R. Votaw
President**

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APPENDIX A	SURVEY DATA FORMS
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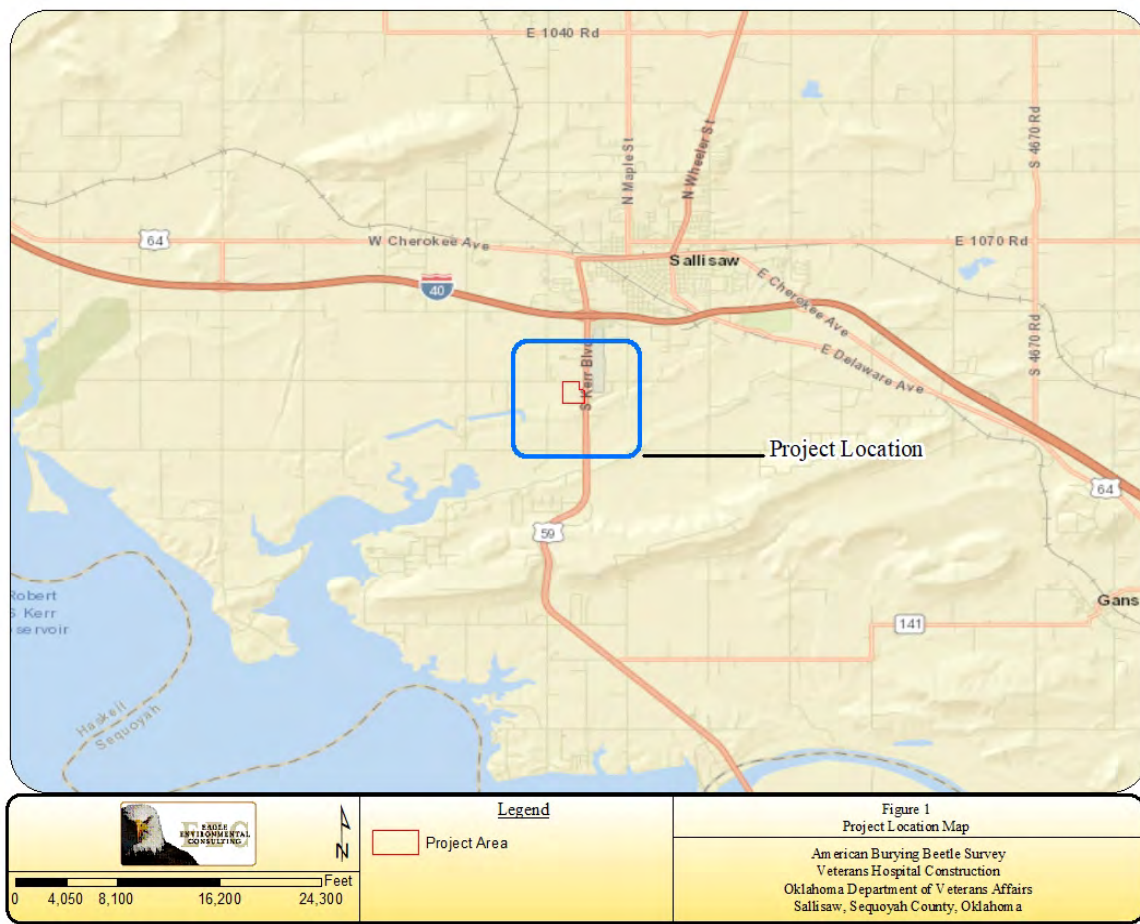
AMERICAN BURYING BEETLE SURVEY

Oklahoma Department of Veterans Administration Veterans Center Construction Sallisaw, Sequoyah County, OK

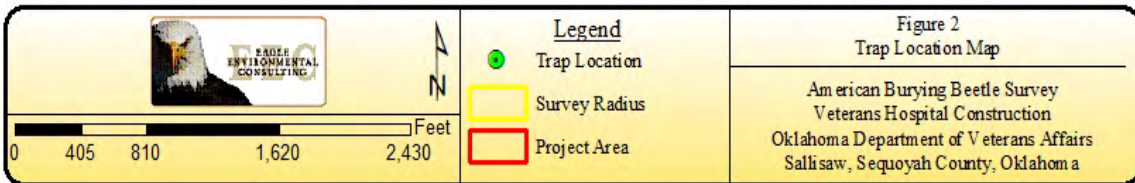
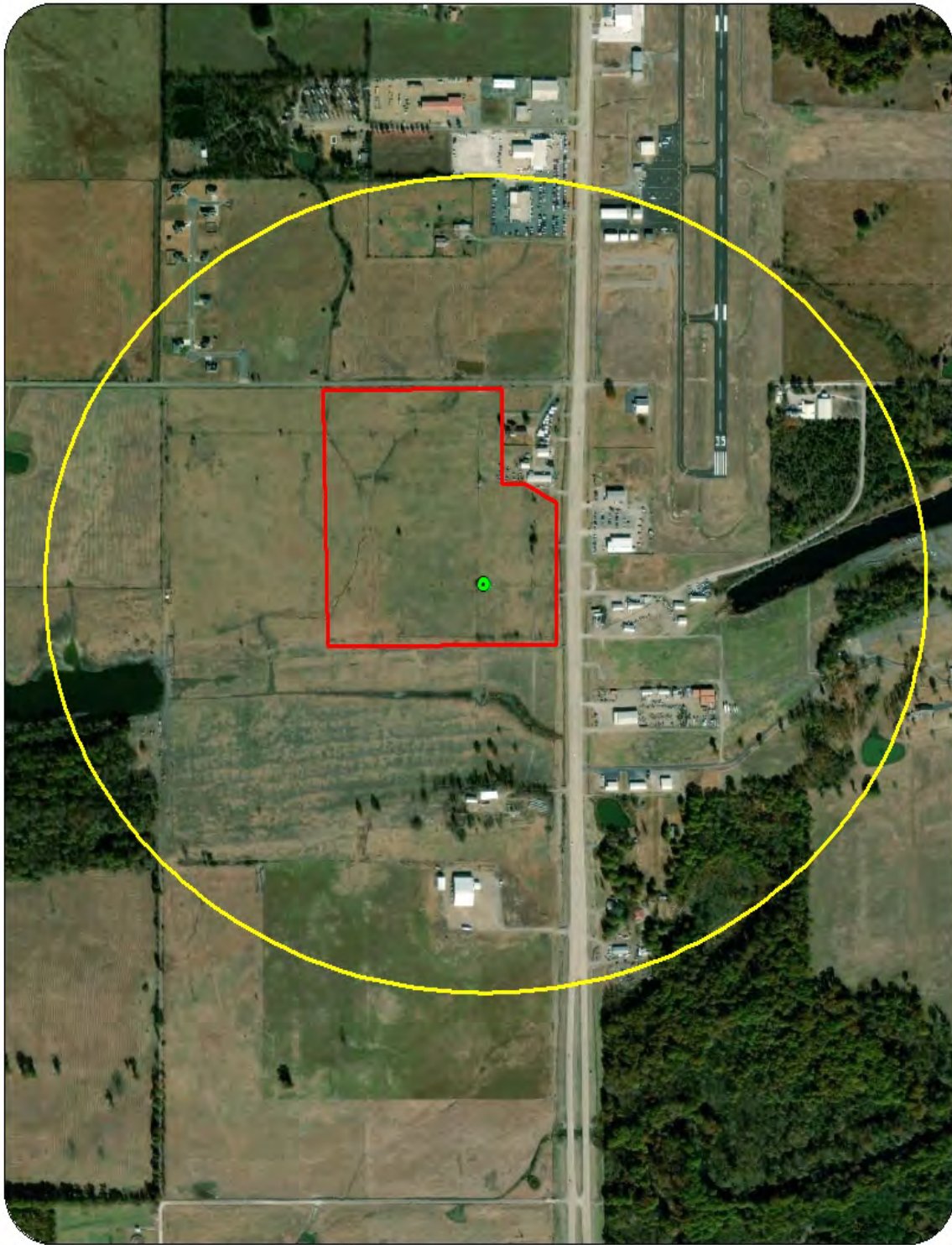
I. Introduction

The subject survey effort was conducted to identify the presence or absence of American Burying Beetles (*Nicrophorus americanus*) (ABB) associated with a proposed construction project for a new Veterans Center in Sallisaw, Sequoyah County, Oklahoma. The proposed project location is shown on (*Figure 1*).

Trapping began the night of August 24, 2019, and continued until the morning of August 30, 2019, during which no ABBs were captured. One trap transect was deployed and maintained for 6 nights and is shown on *Figure 2*. One additional trap nights were required. The ABB has been a federally listed endangered species since 1989 and is also recognized as endangered at the State level. Based on the potential for impact to individuals of ABB, these surveys were performed in compliance with the Endangered Species Act of 1973 (16 U.S.C. 1539, et seq.) and the U.S. Fish and Wildlife Service Regulations (50 C.F.R. 17.22) under Endangered Species permit number TE043399-0.



AMERICAN BURYING BEETLE SURVEY



AMERICAN BURYING BEETLE SURVEY

II. General Site Description

The survey area is located within the Arkansas Valley Plains ecoregion is underlain by Pennsylvanian-age shale, sandstone, and coal. It was once covered by a distinctive mosaic of savanna, woodland, forest, and prairie. Prairie was most extensive on fire-prone sites with moisture deficient soils derived from shale. Today, its undulating plains are mostly pastureland or hayland, whereas its scattered hills and ridges remain wooded; cropland is much less extensive than in the Arkansas River Floodplain (37b), and wooded areas are less extensive than in Ecoregions 36, 37a, and 38. Poultry farming and surface coal mining are other important land uses. Some of the larger streams in Ecoregion 37d still possess sufficient habitat and water quality to support exceptional assemblages of aquatic fauna. Flow in the Poteau River system varies widely; during droughts, tributaries stop or nearly stop flowing, but after heavy precipitation, both flow and turbidity increase, and flooding commonly occurs. The project area appears to be maintained ground that is used for cattle grazing and haying.

III. Sampling Methodology

The ABB is large (1-1.5 inches) and has a shiny black appearance with four orange-red spots on the wing covers (elytra). A large red spot on the pronotum of the beetle is indicative of the species. The habitat requirements for this beetle are not fully known; however, the ABB is considered a habitat generalist and is known to occupy a diverse range of habitats. Habitats associated with the ABB include open grasslands, forests, as well as transitional areas. The beetle is a carrion feeder and utilizes small vertebrate carcasses for food and reproductive purposes. The ABB occurs in a variety of habitat types and will exploit virtually any possibilities where suitable forage and soil conditions may be found. According to the U.S. Fish and Wildlife Service, a minimum of 5 successive trap-nights are required to establish a sampling effort. Temperatures cannot fall below 60°F and wind speed cannot exceed 10 miles per hour for greater than 20% of the trap night between 9 pm and 4 am (1 hour 24 minutes). Failure to meet such specified trapping effort criteria would result in an additional trap night or trap nights. Meteorological data for this ABB survey effort was obtained from Weather Underground. One transect was selected to ensure appropriate survey coverage of the anticipated area of disturbance. The trapping method for the ABB survey was performed according to the Draft American Burying Beetle Range Wide Presence/Absence Live-trapping Survey Guidance, updated May 2015. One five gallon bucket pitfall trap was used. Bait consisted of aged chicken quarters with no feathers and placed on 3 to 4 inches of soil. No additional trap nights were required to complete this survey.

IV. Survey Findings

No American Burying Beetles were captured during the survey effort. Twenty-three (23) American carrion beetle (*Necrophilia americana*) and ninety-four (94) Red-lined carrion beetles (*Necrodes surinamensis*) were captured and released, along with several species of

AMERICAN BURYING BEETLE SURVEY

crickets, arachnids, isopods, arthropods and various other insects were collected. Atmospheric conditions during the ABB survey were fair with normal temperatures and wind velocities ranging from calm to moderate (0 to less than 10 mph). Weather conditions were within acceptable thresholds during the survey. One additional trap nights were required due to excessive rainfall during the survey period. The field survey data forms and survey summary sheet are found in *Appendix A*.

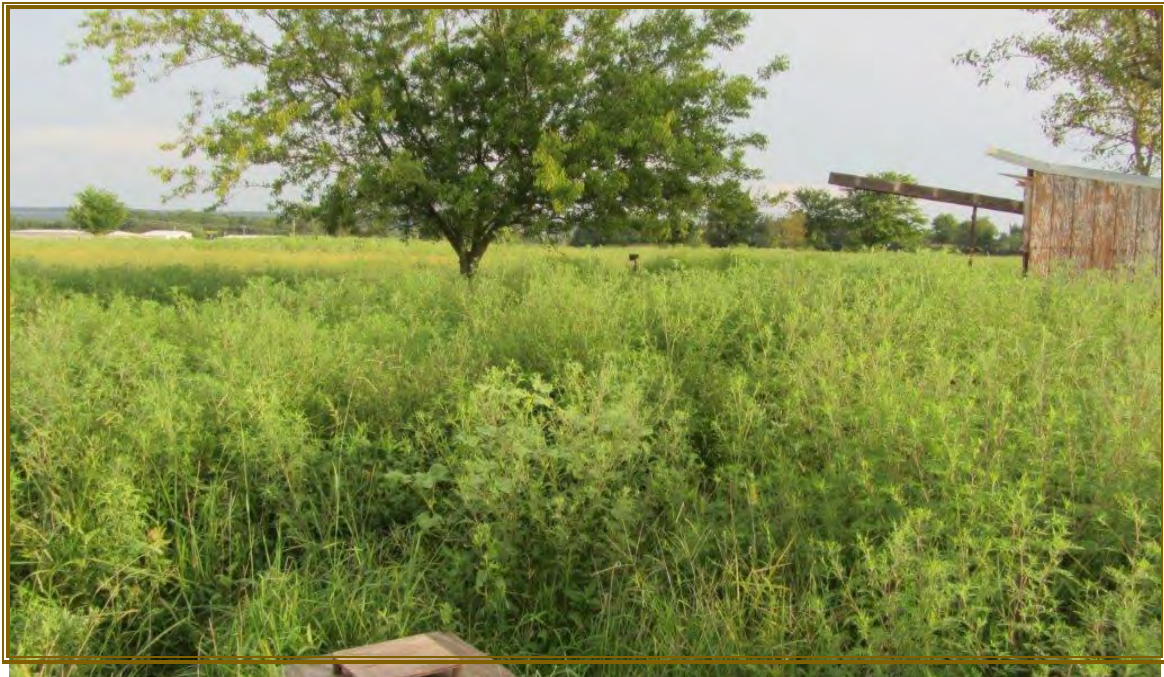


ABB Trap 1 and Representative Habitat

Survey Capture Data:

Trap No.	Disturbed (0/1)	<i>americanus</i>	<i>orbicollis</i>	<i>tomentosus</i>	<i>pustulatus</i>	<i>marginatus</i>	<i>carolinus</i>	<i>sayi</i>	<i>Necrophilia</i>	<i>Necrodes</i>
1	0	0	0	0	0	0	0	0	23	94
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	0	0	23	94

AMERICAN BURYING BEETLE SURVEY

Survey Weather Data:

Trap Night	Daytime Temp Range		Survey Period Temp Range		Daily Humidity Range	
	Min	Max	Min	Max	Min	Max
1	73.8	89.2	72.4	78.2	65	94
2	72.2	97.2	86.4	96.8	56	96
3	69.3	83.9	71	76.6	66	97
4	68.2	89.3	74.4	79.9	57	92
5	71	93.3	75.5	82.6	55	87
6	67.7	78.3	66.4	73	74	96
7	0	0	0	0	0	0
8	0	0	0	0	0	0

V. Conclusion

The subject survey was performed in an effort to identify the presence of American Burying Beetles at or near the proposed land acquisition area. One transect was deployed to ensure adequate coverage and maintained for 6 trap nights. The survey resulted in a negative presence of American Burying Beetles. Based on this negative collection, concurrence of the Tulsa Ecological Field Services Office of the U.S. Fish and Wildlife Service with a finding of May Affect Not Likely to Adversely Effect the ABB will be requested prior to project development.

AMERICAN BURYING BEETLE SURVEY

VI. References

United States Department of Agriculture. Natural Resources Conservation Service, Soil Survey Staff. Web Soil Survey: <http://websoilsurvey.nrcs.usda.gov/>.

United States Fish and Wildlife Service. 2015. American Burying Beetle *Nicrophorus americanus* Oklahoma Presence/Absence Live-trapping Survey Guidance. 15 pages.

United States Geological Survey. 7.5-Minute Topographic Map

Weather Underground. The Weather Channel, LLC, 1993. Web. August 2019.

Woods, et al 2005. Oklahoma (color poster with map, Ecoregions of descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,000,000).

Appendix A: Data Collection Forms*** American Burying Beetle *Nicrophorus americanus* Presence/Absence Live-trapping Survey Guidance

ENTER DATA IN COLOR-SHADED CELLS ONLY IN CELLS THAT REQUIRE DATA ENTRY - DO NOT ENTER DATA IN WHITE CELLS OR HEADER ROWS

AMERICAN BURYING BEETLE SURVEY DATA COLLECTION FORM (April 2017)

Project Name:	OK Veterans Center	No. of Transects Deployed:	1	Survey Night:	1
Project Description:	Construct Veterans Hospital	Trap Type:	Above Ground	Date Checked ¹ :	August 25, 2019
Action Agency/Proponent:	OK Department of Veterans Affairs	Bait Type:	Aged Chicken	Month:	August
Permittee:	Steve Votaw	Trap Cover Size:	24"	Date:	29
TE Permit #:	TE-043399	Set Date:	8/24/2019	Year:	2019
Survey Company:	Eagle Environmental Consulting, Inc.	Survey End Date:			

Trap Location Data

Trap No.	Trap Coordinates		Legal Description			Gen Location	County	State	Vegetation Type	Primary Soil Name	Soil Description	Area	Weather Station
	Latitude	Longitude	Township	Range	Section								
1	35.4309	-94.8077	11N	24E	18	Sallisaw	Sequoyah	OK	Pasture/Field	Vian silt loam	Silt Loam	48	KOKSALL12

Weather Data

Daytime Temps	73.8	89.2	Survey Period Temps	72.4	78.2	Humidity	65	94
	(min.)	(max.)		(min.)	(max.)		(min.)	(max.)
Wind-10mph ²	No		Heavy Rain ³	No		Soil Moisture ⁴	1.5005	
	(Yes/No)							

Capture Data

Trap No.	Disturbed (Y=1/N=0)	<i>Nicrophorus</i> species							<i>Necrophila americana</i>	<i>Necrodes surinamensis</i>	Trap Night Valid (No=0/Yes=1)	Time Checked ⁵ :
		<i>americanus</i>	<i>orbicollis</i>	<i>tomentosus</i>	<i>pustulatus</i>	<i>marginatus</i>	<i>carolinus</i>	<i>sayi</i>				
1	0	0	0	0	0	0	0	0	3	5	1	940
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	0	0	3	5	1	

No. of disturbed traps and/or bait (D): 0 Additional survey night required because of weather⁶: 0 # Valid Trap Nights: 1

(No=0/Yes=1)

List the individual ABB METRICS below and complete the appropriate columns. You will then COPY each row and PASTE into Individual ABB Capture Form BEGINNING at Cell A442 on Pg 6.

ABB Number	Caught in Trap No.	Male	Female	Unknown Sex	Male New ⁸	Male Old ⁹	Female New ⁸	Female Old ⁹	Male Unknown Age ⁸	Female Unknown Age ⁹	Dead	Pronotum Width (mm)	Picture (Yes=1/No=0)	Recapture ¹⁰	Newly Marked ¹¹
Automated Total	0	0	0	0	0	0	0	0	0	0	0	NA	0		

Comments: _____

No Additional survey night was required.

AMERICAN BURYING BEETLE SURVEY DATA COLLECTION FORM

Project Name:	OK Veterans Center	Trap Type:	Above Ground	Survey Night:	6
Project Description:	Construct Veterans Hospital	Bait Type:	Aged Chicken	Date Checked ¹ :	August 30, 2019
Action Agency/Proponent:	OK Department of Veterans Affairs	Trap Cover Size:	24"	Permittee:	Steve Votaw
				TE Permit #:	TE-043399
				Survey Company:	Eagle Environmental Consulting, Inc.

Weather Data

Daytime Temps	67.7 (min.) 78.3 (max.)	Survey Period Temps	66.4 (min.) 73 (max.)	Humidity	74 (min.) 96 (max.)
Wind-10mph ^{7a}	No (Yes/No)	Heavy Rain ^{7b}	No	Soil Moisture ⁴	1.5005

Capture Data

Trap No.	Disturbed (Y=1/N=0)	<i>Nicrophorus</i> species								<i>Necrophila americana</i>	<i>Necrodes surinamensis</i>	Trap Night (No=0/Yes=1)	Time Checked ¹ :
		<i>americanus</i>	<i>orbicollis</i>	<i>tomentosus</i>	<i>pustulatus</i>	<i>marginatus</i>	<i>carolinus</i>	<i>sayi</i>					
1	0	0	0	0	0	0	0	0	0	2	1	915	
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
Totals	0	0	0	0	0	0	0	0	0	2	1		

No. of disturbed traps and/or bait (D): 0 Additional survey night required because of weather^{2a}: 0 # Valid Trap Nights: 1

List the individual ABB METRICS below and complete the appropriate columns. You will then COPY each row and PASTE into Individual ABB Capture Form on Pg 6.

ABB Number	Caught in Trap No.	Male	Female	Unknown Sex	Male New ⁸	Male Old ⁸	Female New ⁸	Female Old ⁸	Male Unknown Age ⁸	Female Unknown Age ⁸	Dead	Pronotum Width (mm)	Picture (Yes=1/No=0)	Recapture ¹⁰	Newly Marked ¹¹
Automated Total		0	0	0	0	0	0	0	0	0	0	NA	0		

Comments: _____

ADD TEXT HERE IF: Additional survey night was not required.

AMERICAN BURYING BEETLE SURVEY DATA COLLECTION FORM

Project Name:	OK Veterans Center	Trap Type:	Above Ground	Survey Night:	7
Project Description:	Construct Veterans Hospital	Bait Type:	Aged Chicken	Date Checked ¹ :	August 31, 2019
Action Agency/Proponent:	OK Department of Veterans Affairs	Trap Cover Size:	24"	Permittee:	Steve Votaw
				TE Permit #:	TE-043399
				Survey Company:	Eagle Environmental Consulting, Inc.

Weather Data

Daytime Temps	(min.) (max.)	Survey Period Temps	(min.) (max.)	Humidity	(min.) (max.)
Wind-10mph ^{7a}	No (Yes/No)	Heavy Rain ^{7b}	No	Soil Moisture ⁴	1.5005

Capture Data

Trap No.	Disturbed (Y=1/N=0)	<i>Nicrophorus</i> species								<i>Necrophila americana</i>	<i>Necrodes surinamensis</i>	Trap Night (No=0/Yes=1)	Time Checked ¹ :
		<i>americanus</i>	<i>orbicollis</i>	<i>tomentosus</i>	<i>pustulatus</i>	<i>marginatus</i>	<i>carolinus</i>	<i>sayi</i>					
1	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
0	0	0	0	0	0	0	0	0	0	0	0		
Totals	0	0	0	0	0	0	0	0	0	0	0		

No. of disturbed traps and/or bait (D): 0 Additional survey night required because of weather^{2a}: 0 # Valid Trap Nights: 0

List the individual ABB METRICS below and complete the appropriate columns. You will then COPY each row and PASTE into Individual ABB Capture Form on Pg 6.

ABB Number	Caught in Trap No.	Male	Female	Unknown Sex	Male New ⁸	Male Old ⁸	Female New ⁸	Female Old ⁸	Male Unknown Age ⁸	Female Unknown Age ⁸	Dead	Pronotum Width (mm)	Picture (Yes=1/No=0)	Recapture ¹⁰	Newly Marked ¹¹
Automated Total		0	0	0	0	0	0	0	0	0	0	NA	0		

Comments: _____

DATA AUTOMATICALLY CALCULATED - DO NOT ENTER DATA IN BLOCKS 1, 3, OR 4

Total Number of Traps:

DATA ENTRY IS ONLY REQUIRED IN DATA BLOCK 2

BLOCK 1 - Individual Trap Capture Data Totals by Species

!!!!!!DATA ENTRY IN THIS BLOCK NOT REQUIRED!!!!!!												
Trap No.	Disturbed (0/1)	<i>americanus</i>	<i>orbicollis</i>	<i>tomentosus</i>	<i>pustulatus</i>	<i>marginatus</i>	<i>carolinus</i>	<i>sayi</i>	<i>Necrophilia</i>	<i>Necrodes</i>	Total Valid Trap Nights	
1	0	0	0	0	0	0	0	0	0	23	94	5
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	0	0	0	23	94	5

No. of disturbed traps and/or bait (D): Additional survey night required because of weather³:

BLOCK 2 - Individual ABB Capture Data - DATA ENTRY IS REQUIRED IN THIS BLOCK

COPY the INDIVIDUAL ABB Capture Data from Nightly Survey Forms and PASTE into the appropriate ROW BY ABB Number.

ABB Number	Caught in Trap No.	Male	Female	Unknown Sex	Male New ⁹	Male Old ⁹	Female New ⁹	Female Old ⁹	Male Unknown Age ⁹	Female Unknown Age ⁹	Dead	Pronotum Width (mm)	Picture (Yes=1/No=0)	Recapture ¹⁰	Newly Marked ¹¹
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
Total ABB	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	0
Comments:															

Total Number of Traps:

!!!!!!DO NOT ENTER ANY DATA IN THIS DATA BLOCK!!!!!!

BLOCK 3 - Total ABB Capture Data by Trap / Transect - Data from THIS BLOCK autopopulates into the Survey Summary Form

Trap No.	Total ABB	Male	Female	Unknown Sex	Male New ⁹	Male Old ⁹	Female New ⁹	Female Old ⁹	Male Unknown Age ⁹	Female Unknown Age ⁹	Dead	Total Trap/Bait Disturbed	Recapture ¹⁰	Newly Marked ¹¹
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0

BLOCK 4 - Cumulative Survey Period Weather Data Summary - NO DATA ENTRY REQUIRED IN THIS BLOCK

Trap Night	Daytime Temp Range		Survey Period Temp Range		Daily Humidity Range	
	Min	Max	Min	Max	Min	Max
1	73.8	89.2	72.4	78.2	65	94
2	72.2	97.2	96.8	86.4	96.8	86.4
3	69.3	83.9	71	76.6	66	97
4	68.2	89.3	74.4	79.9	57	92
5	71	93.3	75.5	82.6	55	87
6	67.7	78.3	66.4	73	74	96
7	0	0	0	0	0	0
8	0	0	0	0	0	0

***** - For surveys involving more than 10 transects, the surveyor should complete additional data forms. Project title information should remain the same, however the transect number(s) should continue in sequential order, i.e. Trap 11, 12...20.**

1. Date and time refer to when trap is checked;
 2. Check that legal description fits decimal degrees location. Lat/Long MUST be in decimal degrees, NAD 83
 3. Max/Min temp from 9 pm to 4 am prior to checking traps, must use data from www.wunderground.com
 4. Soil moisture must be obtained by obtaining the TR-05 report from http://www.mesonet.org/index.php/weather/daily_data_retrieval.
 5. Rain from 9 pm to 4 am, must use data from www.wunderground.com
 6. Wind exceeds 10 mph > than 20% of time between 9 pm to 4 am
 7. Additional trapping required if any metrics exceed the allowable thresholds.
 8. Determine total number of disturbed traps over all 5 survey nights. Any disturbance to 5-gallon traps requires an additional night of survey effort.
 9. OLD=breeding adult; NEW=newly enclosed adult; UNK=age cannot be determined.
 10. Recaptures refer to color and number of bee tag on beetles that have been previously marked.
 11. Newly marked males and females refers to color, number of bee tag, and age of beetle (e.g. RS4[old]).
 Heavy Rain is defined by the World Meteorological Organization (http://severe.worldweather.org/raindoc.html) as "Rainfall greater than or equal to 50 mm (1.9685 inches) in the past 24 hours."
 Last updated April 2017

Attachment 4 – Project Review Concurrence Letter

August 2015



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Ecological Services
9014 East 21st Street
Tulsa, Oklahoma 74129
918/581-7458 / (FAX) 918/581-7467



9/5/2019

Online Project Review Concurrence Letter

To: Christine Modovsky
VA Office of Construction & Facilities Management (003C2)
810 Vermont Street NW
Washington DC 20420
(202) 632-5352; christine.modovsky@va.gov

Project Name: Sallisaw State Veterans Home

Consultation Code: 02EKOK00-2019-SLI-3164

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Oklahoma Ecological Services Field Office (ESFO) online project review process. By providing this letter in conjunction with your complete project review package, you are certifying that you have accurately completed the online project review process for the referenced project in accordance with all instructions provided, using the best available information to reach your conclusions. Concurrence with “not likely to adversely affect” determinations does not provide any exemption for violations of section 9 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA) or “take” of federally-listed species. The Federal action agency is ultimately responsible for ensuring compliance with the ESA and any take that occurs due to your proposed action would be considered a violation under section 9 of the ESA.

This letter and the enclosed project review package complete the review of your project in accordance with the ESA. This letter also provides information for your project review under the National Environmental Policy Act (National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C.4321-4347, 83 Stat. 852), as amended.

A copy of this letter and the project review package must be emailed to **okprojectreview@fws.gov** for this certification to be valid. This letter and the project review package will be maintained in Service records. **Please allow the Oklahoma ESFO 45 days to review your information. If the Oklahoma ESFO determines that the package is not complete, or that additional coordination is necessary, we will contact your office. If, after 45 days from the date of your email submittal of your project review package, the Oklahoma ESFO has not contacted your office, consider your section 7 consultation complete.**

The proposed action consists of:

Construct and operate a 200,000-square-foot state Veterans home (SVH) at 2343 S. Kerr Blvd., Sallisaw, OK 74955. Approximately 17 acres would be disturbed to develop the SVH. A National Environmental Policy Act environmental assessment (EA) has been prepared and is available for public comment at [insert URL]. This EA provides details on the proposed project and evaluates potential impacts to all environmental resources.

Project start and completion dates:

Project construction is estimated to begin in approximately [early/mid/late, or season, year] and SVH operation would commence in approximately [early/mid/late, or season, year].

Federal agency or federal program providing a permit, funding, grant, authorization, loan, etc. associated with the proposed project and how that agency is associated with your project:

U.S. Department of Veterans Affairs would provide a grant that would fund a portion of the construction of the State Veterans Home at Sallisaw, OK, under the State Veterans Home Construction Grant Program.

Federal Agency/Program Point of contact (Name, phone, and email address):

Christine Modovsky
(202) 632-5352
christine.modovsky@va.gov

The species conclusions table in the enclosed project review package summarizes your ESA conclusions. These conclusions resulted in “not likely to adversely affect/modify” determinations for listed species and critical habitat in relation to potential effects of your proposed project. We certify that the use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with determinations of “not likely to adversely affect” for listed species and critical habitat reached by proper use of this process. For projects where this particular determination is reached, additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages efforts to avoid or minimize adverse impacts to them from project effects. Some federal agencies have standing policies that grant limited protections to candidate species. Conservation of candidate species now may preclude future needs to federally list them as endangered or threatened, at which point their legal protection would become required. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of listed species or critical habitat becomes available, this determination may be reconsidered. You should re-visit the Service's Information, Planning, and Conservation (IPaC) website at <http://ecos/fws.gov/ipac/> within 90 days of project initiation to ensure species information is correct. If new species or critical habitat is identified, this letter is no longer valid and a new project package should be submitted to the Oklahoma ESFO.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Oklahoma is available at our website: <<http://www.fws.gov/southwest/es/oklahoma/>>. If you have any questions, please call 918-581-7458 or send an email message to OKProjectReview@fws.gov.

Sincerely,
/s/ Jonna Polk
Field Supervisor
Oklahoma Ecological Services Field Office

Enclosures:

- 1) ENTIRE PROJECT REVIEW
 - PACKAGE: Species Conclusion Table
 - IPaC Species List and Action Area map
 - This letter (Online Concurrence Letter)
 - (Optional) Additional maps
- 2) Other relevant project data/documents

Biological Assessment (Attachment 3 to package)

From: laurence_levesque@fws.gov on behalf of [OK Project Review, FWS](#)
To: [Modovsky, Christine M. \(CFM\)](#)
Subject: Re: [EXTERNAL] Status requested: Request for concurrence: 02EKOK00-2020-SLI-0311
Date: Monday, January 13, 2020 2:51:14 PM

Christine,

We have reviewed your project and concurred with your findings. Your review letter is valid.

If you have any further questions, please do not hesitate to contact me.

Sincerely,
Laurence Levesque

On Mon, Jan 6, 2020 at 12:03 PM Modovsky, Christine M. (CFM)
<Christine.Modovsky@va.gov> wrote:

Dear Sir or Madam:

I am seeking an update on the status of the project review (see below and attached) submitted on 11/5/19 (62 days ago). Please call or email at your convenience.

Sincerely,

Christine Modovsky, M.S., P/PM-II

Environmental Engineer

U.S. Department of Veterans Affairs

Construction & Facilities Management

425 I Street NW

Washington DC 20001

(202) 632-5352

(202) 894-0988 (mobile)

From: OK Project Review, FW2 <okprojectreview@fws.gov>

Sent: Tuesday, November 5, 2019 10:16 AM

To: Modovsky, Christine M. (CFM) <Christine.Modovsky@va.gov>

Subject: OK Project Review Response Re: [EXTERNAL] Request for concurrence: 02EKOK00-2020-SLI-0311

Thank you for submitting your project through the U.S. Fish and Wildlife Service's Oklahoma Ecological Service Field Office project review website. This email serves as verification of your submission to OKprojectreview@fws.gov.

For future requests, please note the following Issues and Updates with the Project Review Webpage:

Project Review Website Known Issues

6/24/2014	Our email return receipt for okprojectreview@fws.gov can provide only one response per email address every four hours. If you submit multiple requests within a four hour window, you may use the return receipt email from your initial project request as proof of additional project submittals.
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DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
2488 EAST 81ST STREET
TULSA, OKLAHOMA 74137-4290

July 2, 2019

Regulatory Office

Mr. David Bednar, Jr
Eagle Environmental Consulting
Post Office Box 5446
Fort Smith, AR 72913

Dear Mr. Bednar:

Please reference your correspondence, dated June 21, 2019, regarding the proposed Veterans Center. The proposed project is located in Section 18, Township 11 North, Range 24 East County, in Sallisaw, Sequoyah County, Oklahoma.

If the proposed work would result in the discharge of any dredged or fill material into wetlands or other waters and you anticipate that the proposed work would meet the terms and conditions of Nationwide Permit (NWP) 39 for Commercial and Institutional Developments, please adhere to the applicable reporting or pre-construction notification requirements, as defined in the terms and conditions of the NWP, so that we may assure compliance with Section 404 of the Clean Water Act. You must access the following link to view and print the NWP and State Regional Conditions:
<http://www.swt.usace.army.mil/Missions/Regulatory/Nationwide-Permit-Program/>.

This project has been assigned Identification Number SWT-2019-00388. Please reference this number during any future correspondence with this office. If you have any questions, please contact Mr. Brett Adams at 918-669-7534.

Sincerely,

A handwritten signature in black ink, appearing to read "A. Commer".

For: Andrew R. Commer
Chief, Regulatory Office

cc: Ms. Sarah Galloway, OCC



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
2488 EAST 81ST STREET
TULSA, OKLAHOMA 74137-4290

January 8, 2020

Regulatory Office

Mr. Dorita Herd
Oklahoma Department of Veteran Affairs
2132 NE 36th Street
Oklahoma City, OK 73111

Dear Ms. Herd:

Please reference your correspondence dated October 25, 2019, concerning the construction of the Veterans Center by the Oklahoma Department of Veterans Affairs. The proposed project is located in Section 18, Township 11 North, Range 24 East, in Sallisaw, Sequoyah County, Oklahoma. We have reviewed the submitted data relative to Section 404 of the Clean Water Act.

The placement of fill material (0.108 acres), associated with the proposed project falls within the scope of Nationwide Permit (NWP) 39 for Commercial Developments, provided the conditions therein are met.

You must access the following link to view and print NWP 39 and State Regional Conditions <http://www.swt.usace.army.mil/Missions/Regulatory/Nationwide-Permit-Program/>. If you accept the obligations and requirements of the NWP and Activity-Specific Conditions listed below, sign and return the enclosed PERMITTEE CONSTRUCTION SCHEDULE (PCS). The NWP will be valid when the signed PCS is returned to this office.

Following completion of your activity, you must return the enclosed "PERMITTEE COMPLIANCE CERTIFICATION" form. This is the certification referred to in General Condition 30 of the NWP. (Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with these requirements you are subject to permit suspension, modification, or revocation.)


The NWP verification for this project is based on the proposed impacts to aquatic resources. No approved jurisdictional determination (AJD) is necessary unless jurisdictional questions arise. Should jurisdictional questions arise, you may request an AJD. Only an AJD, which may be appealed, may make a definitive, official determination that there are, or that there are not, jurisdictional aquatic resources on a parcel. Unless an AJD has been issued which identified applicable aquatic resources to be non-jurisdictional, undertaking any activity in reliance on any form of Corps permit authorization constitutes agreement that all aquatic resources in the review area, affected in any way by that activity, will be treated as jurisdictional.

This NWP is scheduled to expire on March 18, 2022. It is incumbent on you to remain informed of changes to the NWPs. The Corps will issue a public notice announcing the changes as they occur. Furthermore, if you commence, or are under contract to commence, the activity before the date the NWP is modified or revoked, you will have 12 months from the date of the modification or revocation to complete the activity under the present terms and conditions of this NWP.

If you desire to complete a "Customer Service Survey" on your experience with the Corps Regulatory Program, you are invited to visit http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey on the internet at your convenience and submit your comments.

Your project has been assigned Identification Number SWT-2019-00388. Please refer to this number during future correspondence. If further assistance is required, contact Brett Adams at (918) 669-7534.

Sincerely,



for: Andrew R. Commer
Chief, Regulatory Office

Enclosures

cc:
Mr. Steve Votaw, Eagle Environmental

PERMITTEE CONSTRUCTION SCHEDULE WORKSHEET

MAIL TO:

U.S. Army Corps of Engineers, Tulsa District
CESWT-RO
2488 East 81st Street
Tulsa, Oklahoma 74137

WITHIN 30 DAYS OF "DATE OF ISSUANCE"

PERMIT NO.: SWT-2019-00388

USACE PROJECT MANAGER: Brett Adams

PERMITTEE NAME: Ms. Dorita Herd

DATE OF ISSUANCE: January 8, 2020

Please provide the following information:

Anticipated/Known Construction Start Date: _____

Anticipated Completion Date: _____

I have read and understand the obligations and requirements of this authorization.

Ms. Dorita Herd

DATE

(FOR AGENCY USE ONLY - DO NOT WRITE BELOW THIS LINE)

RECEIVED IN CESWT-RO: _____

INSPECTION NEEDED: Y / N

CONSTRUCTION INSPECTION SCHEDULED: _____

FINAL INSPECTION SCHEDULED: _____

Sequoyah County, OK

PERMITTEE COMPLIANCE CERTIFICATION

Upon completion of the activity authorized by this permit and any mitigation required by this permit, sign and complete this certification form and return it to:

U.S. Army Corps of Engineers, Tulsa District
CESWT-RO
2488 East 81st Street
Tulsa, Oklahoma 74137

PERMIT NO.: SWT-2019-00388

USACE PROJECT MANAGER: Brett Adams

PERMITTEE NAME: Ms. Dorita Herd

DATE OF ISSUANCE: January 8, 2020

(Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.)

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Ms. Dorita Herd

DATE

DATE WORK COMPLETED: _____

(FOR AGENCY USE ONLY - DO NOT WRITE BELOW THIS LINE)

RECEIVED IN CESWT-RO: _____

INSPECTION NEEDED: Y/N

FINAL INSPECTION SCHEDULED: _____

Sequoyah County, OK

U. S. Department of Homeland Security
FEMA Region 6
800 North Loop 288
Denton, TX 76209-3698



FEMA

FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION 6
MITIGATION DIVISION

RE: Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma

NOTICE REVIEW/ENVIRONMENTAL CONSULTATION

We have no comments to offer. We offer the following comments:

WE WOULD REQUEST THAT THE COMMUNITY FLOODPLAIN ADMINISTRATOR BE CONTACTED FOR THE REVIEW AND POSSIBLE PERMIT REQUIREMENTS FOR THIS PROJECT. IF FEDERALLY FUNDED, WE WOULD REQUEST PROJECT TO BE IN COMPLIANCE WITH EO11988 & EO 11990.

City of Sallisaw
Keith Miller
Director Building Development
P.O. Box 525
Sallisaw, OK 74955-0525
kmiller@sallisawok.org
(918) 790-7116

Sequoyah County
Steve Rutherford
Emergency Management Director
117 South Oak Street, Suite 112
Sallisaw, OK 74955-4655
sequoyahcoem@yahoo.com
(918) 773-7594

REVIEWER:

Colleen Sciano
Floodplain Management and Insurance Branch
Mitigation Division
(940) 383-7257

DATE: July 1, 2019

Subject: Proposed Oklahoma Veterans Center near Sallisaw, Oklahoma
From: "Martinez, Eli" <martinez.eli@epa.gov>
Date: 7/10/2019, 2:18 PM
To: "david@eagle-env.com" <david@eagle-env.com>
CC: "Houston, Robert" <Houston.Robert@epa.gov>

Dear Mr. Bednar,

In regard to the attached letter, the U.S. Environmental Protection Agency, the Region 6 NEPA office, does not anticipate a significant adverse environmental impact from this project. We appreciate the opportunity to review this project. If you have any questions, please contact me at 214-665-2119 or by email at martinez.eli@epa.gov.

Eli Martinez
Office of Communities, Tribes and Environmental Assessment
U.S. Environmental Protection Agency
1201 Elm Street, Suite 500 (ORACN)
Dallas, Texas 75270-2102
Office: (214) 665-2119
Email: martine.eli@epa.gov

— Attachments: —

Sallisaw, Oklahoma - Solicitation of Views - Veterans Center - Construction of new 207,000 square-foot single story nursing facility next to Highway 59.pdf	421 KB
--	--------



Oklahoma Historical Society

Founded May 27, 1893

State Historic Preservation Office

Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7917
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

August 15, 2018

Ms. Debby Keith, Grants Administrator
City of Sallisaw
P.O. Box 525
Sallisaw, OK 74955

RE: File #2117-18; Sallisaw Proposed Site Selection for Relocation of Oklahoma Veterans Center,
W/2 Sec.18 T11N R24E, Sequoyah County

Dear Ms. Keith:

We have received and reviewed the documentation concerning the referenced project in Sequoyah County. Additionally, we have examined the information contained in the Oklahoma Landmarks Inventory (OLI) files and other materials on historic resources available in our office. We find that there are no historic properties affected by the referenced project.

Thank you for the opportunity to comment on this project. We look forward to working with you in the future.

If you have any questions, please contact Catharine M. Wood, Historical Archaeologist, at 405/521-6381.

Should further correspondence pertaining to this project be necessary, please reference the above underlined file number. Thank you.

Sincerely,

Lynda Ozan
Deputy State Historic
Preservation Officer

LO:pm



Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

July 30, 2018

Debby S. Keith
Grant Administrator
The City of Sallisaw
P.O. Box 525
Sallisaw, Oklahoma 74955

Re: City of Sallisaw Proposed Relocation of an Oklahoma Veterans Center.
Legal Description: SE ¼ NW ¼ NW ¼ of Section 18, T11N, R23E, Sequoyah County,
Oklahoma.

Dear Ms. Keith:

The Community Assistance Program staff of the Oklahoma Archeological Survey has reviewed the above referenced project in order to identify areas that may potentially contain prehistoric or historic archeological materials (historic properties). The location of your project has been crosschecked with the state site files containing approximately 26,500 archaeological sites, which are currently recorded for the state of Oklahoma. No Sites are listed as occurring within your project area, and based on the topographic and hydrologic setting, no archaeological materials are likely to be encountered. Thus, an archaeological field inspection is not considered necessary. Please contact this office at (405) 325-7211 if buried archaeological materials such as chipped stone tools, pottery, bone, historic crockery, glass, metal items or building materials are exposed during construction activities.

This environmental review and evaluation is done in cooperation with the State Historic Preservation Office, Oklahoma Historical Society. The responsible federal agency or their official delegate must also have a letter from that office to document consultation pursuant to Section 106 of the National Historic Preservation Act.

In addition to our review comments, under 36CFR Part 800.3 you are reminded of your responsibility to consult with the appropriate Native American tribe/groups to identify any concerns they may have pertaining to this undertaking and potential impacts to properties of traditional and/or ceremonial value.

Sincerely,

Christy L. Stewart
Staff Archaeologist

Kary L. Stackelbeck
State Archaeologist

: dkg
cc: SHPO





GWYŁ DĀP
CHEROKEE NATION®
P.O. Box 948 • Tahlequah, OK 74465-0948 • 918-453-5000 • cherokee.org

Office of the Chief

Bill John Baker
Principal Chief
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S. Joe Crittenden
Deputy Principal Chief
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ᑎᑦᑎᑎᑎᑎᑎ ᑎᑦᑎᑎᑎᑎᑎ

August 14, 2018

Debby S. Keith
Grant Administrator
City of Sallisaw
P.O. Box 525
Sallisaw, OK 74955

Re: City of Sallisaw, Proposed Relocation of an Oklahoma Veterans Center

Ms. Debby S. Keith:

The Cherokee Nation (Nation) is in receipt of your correspondence about **City of Sallisaw, Proposed Relocation of an Oklahoma Veterans Center**, and appreciates the opportunity to provide comment upon this project. Please allow this letter to serve as the Nation's interest in acting as a consulting party to this proposed undertaking.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office reviewed this project, cross referenced the project's legal description against our information, and found no instances where this project intersects or adjoins such resources. Thus, the Nation does not foresee this project imparting impacts to Cherokee cultural resources at this time.

However, the Nation requests that the City of Sallisaw halt all project activities immediately and re-contact our Offices for further consultation if items of cultural significance are discovered during the course of this project.

Additionally, the Nation requests that the City of Sallisaw conduct appropriate inquiries with other pertinent Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

If you require additional information or have any questions, please contact me at your convenience. Thank you for your time and attention to this matter.

Wado,

Elizabeth Toombs, Tribal Historic Preservation Officer
Cherokee Nation Tribal Historic Preservation Office
elizabeth-toombs@cherokee.org
918.453.5389



Osage Nation Historic Preservation Office

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Date: August 13, 2019

File: 1819-4454OK-6

RE: VA, Eagle Environmental Consulting, Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma

Eagle Environmental Consulting
Steven Votaw
P.O. Box 335
Vinita, OK 74301

Dear Mr. Votaw,

The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project listed as VA, Eagle Environmental Consulting, Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma. **The Osage Nation requests that a cultural resources survey be conducted for this project.**

In accordance with the National Historic Preservation Act, (NHPA) [54 U.S.C. § 300101 et seq.] 1966, undertakings subject to the review process are referred to in 54 U.S.C. § 302706 (a), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources. **The Osage Nation anticipates reviewing and commenting on the survey report for the proposed VA, Eagle Environmental Consulting, Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma.**

Should you have any questions or need any additional information please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Jackie Rodgers
Archaeologist



DEPARTMENT OF VETERANS AFFAIRS
WASHINGTON DC 20420

October 28, 2019

Ms. Jackie Rodgers
Osage Nation Historic Preservation Office
627 Grandview Avenue
Pawhuska, OK 74056

RE: Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma (1819-4454OK-6)

Dear Ms. Rodgers:

Thank you for your letter of August 13, 2019, to Mr. Steven Votaw, of Eagle Environmental Consulting, relating to the above referenced undertaking.

The U.S. Department of Veterans Affairs and the Oklahoma Division of Veterans Affairs, working with Eagle Environmental Consulting and Holt Consulting Services, has completed an Archaeological Investigation Report for the site of the proposed new Oklahoma Veterans Center in Sequoyah County. Please see the attached report.

Based on the results of this investigation, we have determined that the proposed undertaking will have no effect to historic properties. We request your concurrence with this determination.

If you have any questions, please email me at anna.gaug@va.gov.

Thank you,

A handwritten signature in black ink, appearing to read "Anna Gaug", is positioned above the typed name.

Anna Gaug, Program Manager
VA State Home Construction Grant Program



Osage Nation Historic Preservation Office

HAZAZA KOSN KAPPA

Date: December 10, 2019

File: 1920-1171OK-10

RE: VA, Eagle Environmental Consulting, Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma

Eagle Environmental Consulting
Steven Votaw
P.O. Box 335
Vinita, OK 74301

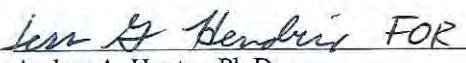
Dear Mr. Votaw,

The Osage Nation Historic Preservation Office has evaluated your submission regarding the proposed VA, Eagle Environmental Consulting, Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma and determined that the proposed project **most likely will not adversely affect any sacred properties and/or properties of cultural significance to the Osage Nation.** For direct effect, the finding of this NHPA Section 106 review is a determination of "No Properties" eligible or potentially eligible for the National Register of Historic Places.

In accordance with the National Historic Preservation Act, (NHPA) [54 U.S.C. § 300101 et seq.] 1966, undertakings subject to the review process are referred to in 54 U.S.C. § 302706 (a), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969). **The Osage Nation concurs that the fulfilled NHPA compliance by consulting with the Osage Nation Historic Preservation Office in regard to the proposed project referenced as VA, Eagle Environmental Consulting, Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma.**

The Osage Nation has vital interests in protecting its historic and ancestral cultural resources. We do not anticipate that this project will adversely impact any cultural resources or human remains protected under the NHPA, NEPA, the Native American Graves Protection and Repatriation Act, or Osage law. **If, however, artifacts or human remains are discovered during project construction, we ask that work cease immediately and the Osage Nation Historic Preservation Office be contacted.**

Should you have any questions or need any additional information please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.


✓ Andrea A. Hunter, Ph.D.
Director, Tribal Historic Preservation Officer


Jackie Rodgers
Archaeologist

Recommendations for General Construction, Safe Room and Storm Shelter Projects

The Oklahoma Department of Environmental Quality (DEQ) has completed its review of your general construction or safe room/storm shelter project and offers the following suggestions to ensure environmental compliance throughout the project.

- Removal or installation of water and/or sewer lines must conform to all relevant local and/or state plumbing codes.
- Removal of paint must conform to all relevant lead-based paint regulations.
- Handling and/or removal of asbestos must conform to all relevant asbestos regulations.
- Reasonable precautions should be taken to protect air quality by minimizing fugitive dust emissions.
- If the project will disturb more than one acre of land, a determination should be made as to whether an Oklahoma Pollutant Discharge Elimination System (OPDES) permit for storm water is required during the construction phase.
- Any solid or hazardous waste from the project must be recycled and/or disposed in accordance with all relevant solid waste and/or hazardous waste regulations.

If you need further assistance, please contact DEQ's Environmental Review Coordinator at EnvReviews@deq.ok.gov.



Subject: Environmental Impact Review
From: DEQ EnvReviews <EnvReviews@deq.ok.gov>
Date: 7/12/2019, 9:03 AM
To: "david@eagle-env.com" <david@eagle-env.com>

Dear Mr. Bednar:

In response to your request, we have completed an environmental review of air, land and water records for the project listed below.

Project

Letter dated June 21, 2019 – Proposed Veterans Center, Sallisaw, Sequoyah County, OK

Comment

While no environmental concerns under DEQ jurisdiction are anticipated, please be aware of the following regulatory requirement.

Prior to beginning any construction activity disturbing more than one acre, you must submit an NOI and obtain authorization under OKR10, construction stormwater.

Additional recommendations to consider may be found at (*strike the incorrect link*) <https://go.usa.gov/xnhCE>.

Future requests may be submitted electronically to EnvReviews@deq.ok.gov by attaching a single pdf file containing your request and any attachments.

Thank you for the opportunity to provide our comments. If you have any questions or need clarification, please contact me.

Regards,

Jon A. Roberts, Senior Manager
Office of External Affairs
Oklahoma Department of Environmental Quality
P. O. Box 1677
707 N. Robinson Ave.
Oklahoma City, OK 73101-1677
Ph: (405) 702-7111
<http://www.deq.state.ok.us/OEA/index.html>

APPENDIX C

WATERS OF THE US DELINEATION

WATERS OF THE US DELINEATION

Oklahoma Veterans Center
Sallisaw, Sequoyah County, Oklahoma

Prepared for:



2132 NE 36th
Oklahoma City, OK 73111
Phone: 405-523-4000

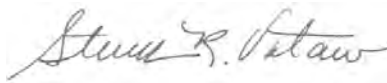
Prepared by:



P.O. Box 335
Vinita, Oklahoma 74301
918-272-7656

P.O. Box 5446
Fort Smith, Arkansas 72913
918-697-3936

July 2019



Steven R. Votaw
President

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1.0 Introduction

A wetland and waterway delineation survey was conducted for the proposed new 207,000 square-foot single story skilled nursing facility Veterans Center by the Oklahoma Department of Veterans Affairs (VA). The new facility will include construction of a 175-bed facility along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new Center will incorporate eleven residential wings arranged along a central “main street” promenade and each resident wing will contain 18 private residential rooms, serving, dining, and living areas with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive. The field survey was performed to collect and record physical characteristics of aquatic areas potentially considered jurisdictional by the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act. Each aquatic resource was identified and/or investigated according to the diagnostic field indicators used to confirm presence and determine the preliminary jurisdictional status. Observations of the property were made on July 22 and 23, 2019. The general location map for the proposed action area is shown on **Figure 1**.



2.0 General Survey Area Description

The property is located in the Arkansas Valley Plains ecoregion (37D) is underlain by Pennsylvanian-age shale, sandstone, and coal. It was once covered by a distinctive mosaic of savanna, woodland, forest, and prairie. Prairie was most extensive on fire-prone sites with moisture deficient soils derived from shale. Today, its undulating plains are mostly pastureland or hay land, whereas its scattered hills and ridges

remain wooded; cropland is much less extensive than in the Arkansas River Floodplain (37b), and wooded areas are less extensive than in Ecoregions 36, 37a, and 38. Poultry farming and surface coal mining are other important land uses. Some of the larger streams in Ecoregion 37d still possess sufficient habitat and water quality to support exceptional assemblages of aquatic fauna. Flow in the Poteau River system varies widely; during droughts, tributaries stop or nearly stop flowing, but after heavy precipitation, both flow and turbidity increase, and flooding commonly occurs.

Project Area Description

The project area is described as an open pasture used for livestock grazing. Very few trees were present within the surveyed area. The dominant vegetation consisted of fescue (*Festuca pratensis*), Bermuda grass (*Cynodon dactylon*), white clover (*Trifolium repens*), annual ragweed (*Ambrosia artemisiifolia*), Johnson grass (*Sorghum halapense*), yellow hop clover (*Trifolium aureum*), mare's tail (*Conyza canadensis*), hedge parsley (*Torilis arvensis*), smartweed (*Persicaria hydropiper*), green flat sedge (*Cyperus virens*), late flowering boneset (*Eupatorium serotinum*), horse nettle (*Solanum carolinense*), thistle (*Cirsium sp.*), barnyard grass (*Echinochloa crus-galli*), Dallis grass (*Paspalum sp.*), chufa (*Carex esculantus*), Franks sedge (*Carex frankii*), water primrose (*Ludwigia decurrens*), creeping spikerush, (*Eleocharis palustris*), and flat-stemmed spikerush (*E. compressa*). The dominant woody and vine vegetation consisted of American elm (*Ulmus americana*) and sugarberry (*Celtis laevigata*).

Project Location

The project is located approximately 2 miles south of Sallisaw, OK on the west side of U.S. Highway 59. The project area is situated on the Sallisaw 7.5-minute USGS topographic map in Section 8, Township 11 North, Range 24 East in Sequoyah County, Oklahoma.

3.0 Wetland and Waterway Delineation Methodology

The USACE Wetlands Delineation Manual (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (USACE 2010) were referenced in concert to identify wetlands. Wetland areas, if observed, would be identified using the routine on-site (level 2) method, as described in Section D of the 1987 USACE Wetlands Delineation Manual. The identification of wetlands consists of a three-parameter approach that involves determining the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Where differences in the two documents occur, the Regional Supplement takes precedence over the 1987 Corps Manual.

Hydrophytic plant communities are determined after species identification based on the wetland status indicators of the dominant plant species present within the sample plot. In accordance with the USACE delineation manual, plant species that have a wetland indicator status of facultative (FAC), facultative wetland (FACW), or obligate (OBL) represent hydrophytic vegetation. Wetland hydrology implies a hydrologic regime involving periodic inundation or saturation within the upper portions of the soil profile (for sufficient duration) during the growing season. Onsite indicators used as evidence of wetland hydrology include inundation, saturation, sediment deposition, drift lines, water marks, and scouring. Hydric soils are determined based on criteria established by the Soil Conservation Service (USDA, 2000) and described in the regional supplement. Indicators of hydric soils predominantly include soil color and redoximorphic (redox) concentrations (reddish mottles). Soil matrix and mottle color, when appropriate, are identified according to Munsell Soil Color Charts (Kollormorgen, 2000).

In most circumstances, all three parameters must be present for the area to be a wetland. Data sampling points are established in representative areas within the wetland areas and in the adjacent uplands. Vegetation, soils, and hydrology characteristics are recorded on data forms for each sampling point and boundaries are established based on the results of the individual sample plots, after further refining as necessary. Potentially jurisdictional waters of the United States, other than wetlands, were also to be defined if observed. These areas include creek channels, rivers, ponds, and/or lakes. These characteristics

include, but are not limited to, a line impressed on a bank, defined bed and bank, shelving, ordinary high water mark, changes in soil characteristics, destruction of terrestrial vegetation, and presence of debris (33 CFR Part 328). Waterways are identified and located according to size, flow patterns, watershed characteristics, presence of an ordinary high water mark, and drainage basin.

4.0 Survey Findings

Waters of the United States

The onsite survey was conducted to identify and locate those areas exhibiting the required wetland parameters and onsite characteristics for waters of the United States, if observed. Data were collected for each investigated area to characterize and describe the observed indicators. The descriptions for each identified area are provided below according to Field Site (FS) number. Twelve (12) aquatic areas were evaluated during the site survey which included 1 ephemeral waterway and 11 herbaceous wetlands. Photographs of the investigated areas are provided at *Appendix A*. The wetland data collection forms completed for each identified feature identify the diagnostic features confirmed onsite and are provided in *Appendix B*. The location and boundary of the identified aquatic features are depicted on the waters of the US location maps (**Figure 2** and **Figure 3**).

Field Site Descriptions

FS-1 was identified as a very small, 0.008-acre, herbaceous, depression wetland that appears to be affected by livestock. The dominant vegetation consisted of marsh pepper and green flatsedge. Indicators of hydric soils were evidenced as 2.5 YR 4/6 redoximorphic features with the 10 YR 4/2 silt loam matrix. Wetland hydrology was evidenced by algal mats, oxidized rhizospheres, and saturation. Although not associated with a mapped waterway, FS-1 may have a connection to a water of the US through the adjacent roadside ditch to a downstream water of the US and may be considered jurisdictional by the USACE.

FS-2 is characteristically very similar to FS-1 and encompasses 0.071 acres. The area is also disturbed by livestock which may have facilitated the development of this depression feature. The identified vegetation consisted of marsh pepper and barnyard grass. The hydrology and hydric soils indicators were nearly identical to FS-1. FS-2 is not associated with any USGS-mapped waterways, does not appear to have a connection to a water of the US and may not be considered jurisdictional.

FS-3 is another very small, 0.003-acre depression wetland that is affected by livestock. The observed vegetation included green flatsedge and Frank's sedge. The area was saturated, contained algal mats, evidence redoximorphic (redox) features within the soil profile. Hydric soils were confirmed based on the presence of redox in the depleted 10 YR 4/2 silt loam matrix. FS-3 does not appear to be influenced by any USGS-mapped waterway, appears to also be isolated, and may not be considered jurisdictional by the USACE.

FS-4 is a somewhat larger, livestock-disturbed, 0.159-acre, herbaceous wetland dominated by water primrose and little green flatsedge. Algal mats, surface soil cracking, aquatic fauna, and oxidized rhizospheres were observed as hydrology indicators. The soils were confirmed as hydric based on matrix coloration and the presence of redox features. FS-4 is not associated with a mapped waterway, appears to be isolated, and may not be considered jurisdictional by the USACE.

FS-5 was identified as a 0.015-acre, depression, herbaceous wetland situated near the southern survey area boundary. The identified vegetation consisted of marsh pepper, chufa, and Frank's sedge. Indicators of hydric soils were evidenced as 2.5 YR 4/6 redoximorphic features with the 10 YR 4/2 silt loam matrix. Wetland hydrology was evidenced by algal mats, oxidized rhizospheres, and saturation. Indicators of

wetland hydrology were consistent with other identified features and included algal mats, redox features, soil cracking and aquatic fauna. FS-5 is not associated with a USGS-mapped waterway but may be considered jurisdictional due to a potential nexus with a drainage feature that extends west and south and drains into an identifiable waterway associated with an abandoned mine reclamation area.

FS-6 is a 0.082-acre depressional herbaceous wetland situated in or near a section of formerly relocated waterway (identified on the USGS map). The dominant vegetation included Frank's sedge, creeping spikerush, and marsh pepper. Wetland hydrology indicators included redox features, soil cracking, algal mats, and aquatic fauna. The soils were verified as hydric based on the 10 YR 4/2 depleted matrix coloration and oxidized rhizospheres. FS-6 appears to have a nexus with FS-12 and will be considered jurisdictional.

FS-7 was identified as a 0.086-acre herbaceous wetland situated in a livestock-aggravated depression. Hydric soils were confirmed by the presence of redox features in the depleted silt loam matrix. Indicators of wetland hydrology included surface water, saturation, oxidized rhizospheres, algal mats, and aquatic fauna. The feature appears to be situated in a former course location of and is connected to FS-12. FS-7 will be considered jurisdictional.

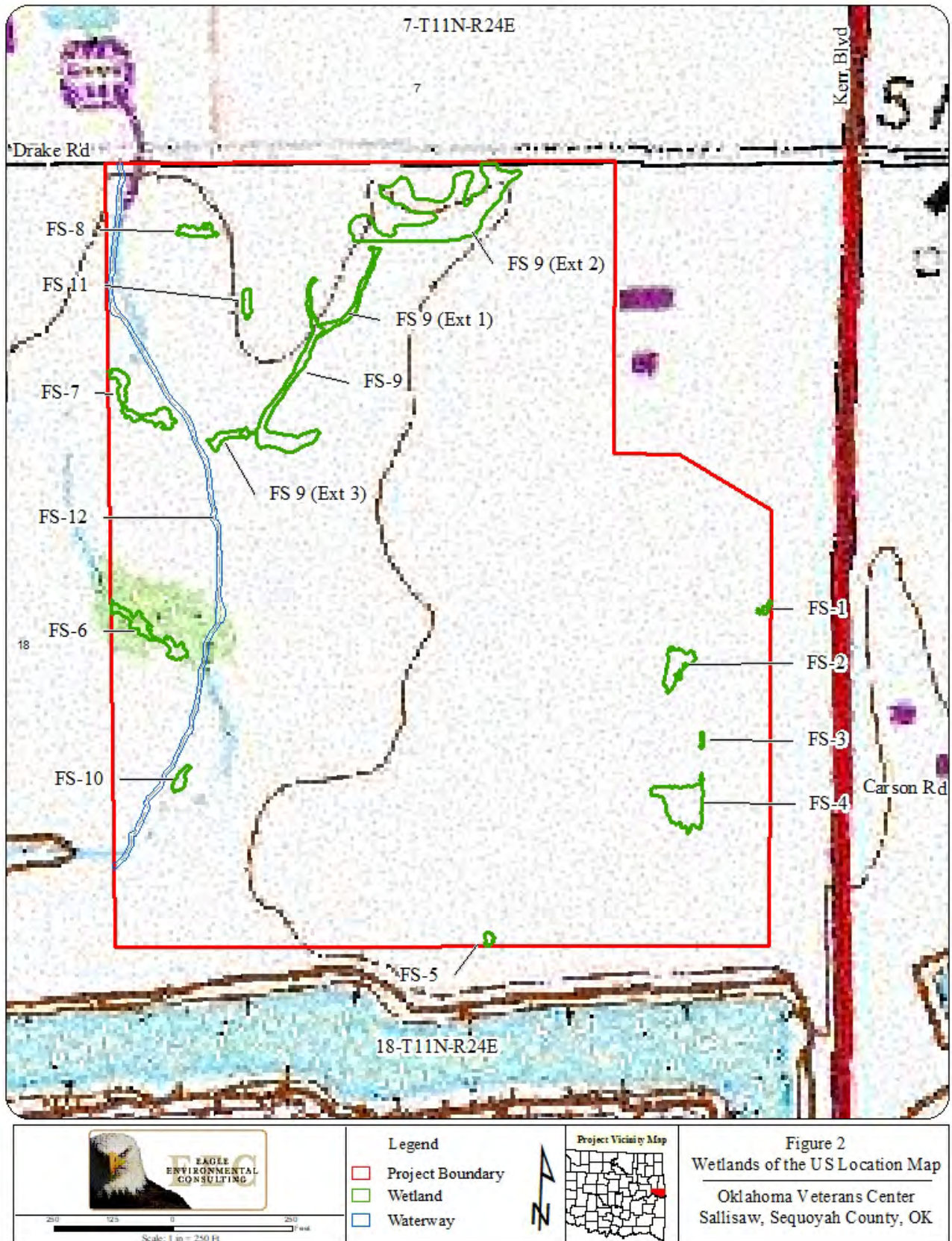
FS-8 is another very small herbaceous depression wetland 0.034 acres in size. The area is also disturbed by livestock. The identified vegetation consisted of late flowering boneset, chufa, green flatsedge, and flat stemmed spikerush. The indicators of hydrology included oxidized rhizospheres, crayfish burrows, and saturation on historic aerial imagery. The hydric soils indicators were consistent with other previously described features. FS-8 does not appear to exhibit a direct hydrologic connection to FS-12 but may indistinctly drain to the identified waterway. FS-8 may be considered jurisdictional by the USACE.

FS-9 is a rather large 0.823-acre herbaceous wetland that appears to be associated with an ephemeral drainage in the north central portion of the project area that is not identified on the USGS topographic map. Further, this feature is also affected by farm field roads that bisect the area and may artificially influence periods of standing water. The dominant vegetation included late flowering boneset, chufa, green flatsedge, and flat stemmed spikerush. Indicators of wetland hydrology included oxidized rhizospheres, crayfish burrows, and aerial imagery saturation. Hydric soils were evidenced by redox features described as concentrations and pore linings within the 10 YR 4/2 depleted silt loam matrix. FS-9 is connected to FS-12 and will likely be considered jurisdictional by the USACE.



FS-10 was identified as a 0.021-acre, depression, herbaceous wetland evidencing livestock disturbance. The dominant vegetation consisted of marsh pepper, creeping spikerush, and Frank's sedge. The area evidenced algal mats, oxidized rhizospheres, and soil cracking as indicators of wetland hydrology presence. The soils were confirmed as hydric based on the depleted silt loam matrix coloration and redox features therein. FS-10 is situated adjacent to and connected with FS-12 and may also be located in a former channel location. FS-10 will likely be considered jurisdictional by the USACE.

FS-11 is described as a 0.020-acre, depressional, herbaceous wetland dominated by Frank's sedge, barnyard grass, soft rush, and chufa. The area was partially inundated, saturated, and contained oxidized rhizospheres as primary indicators of hydrology. Hydric soils were evidenced by redox features in the depleted matrix. FS-11 appears isolated and not be considered jurisdictional.

FS-12 was identified as a 1,619-foot long ephemeral and partially relocated waterway that transitioned primary north to south along the western perimeter of the survey area. No wooded riparian zone was present. Channel dimensions ranged between 5 and 15 feet wide and generally 2 feet deep. The waterway evidenced a defined bed and bank and ordinary high-water mark. FS-12 will be considered jurisdictional by the USACE.





 <p>Scale: 1 in = 250 ft</p>	<p>Legend</p> <ul style="list-style-type: none"> □ Project Boundary □ Wetland □ Waterway 	<p>Project Vicinity Map</p> 	<p>Figure 3 Wetlands of the US Location Map Oklahoma Veterans Center Sallisaw, Sequoyah County, OK</p>
---	--	---	---

5.0 Conclusion

The wetland and waterway delineation effort was performed to identify the presence of jurisdictional waterways and/or wetlands within the proposed project corridor. The total linear footage of ephemeral streams within the project area was 1,619 feet. The total herbaceous wetland acreage within the surveyed area is 1.316 acres. The following table provides a summary of the identified aquatic resources delineated during the field survey.

Identified Aquatic Features						
FS Number	Feature Type	Footage	Acres	Latitude	Longitude	Jurisdictional Status
FS-1	Herbaceous Wetland	---	0.008	35.43176	-94.80630	Potential
FS-2	Herbaceous Wetland	---	0.071	35.43143	-94.80692	Not Apparent
FS-3	Herbaceous Wetland	---	0.003	35.43099	-94.80674	Not Apparent
FS-4	Herbaceous Wetland	---	0.159	35.43062	-94.80687	Not Apparent
FS-5	Herbaceous Wetland	---	0.010	35.42984	-94.80824	Not Apparent
FS-6	Herbaceous Wetland	---	0.082	35.43162	-94.80692	Yes
FS-7	Herbaceous Wetland	---	0.086	35.43294	-94.81070	Yes
FS-8	Herbaceous Wetland	---	0.034	35.43394	-94.81030	Yes
FS-9	Herbaceous Wetland	---	0.823	35.43295	-94.80965	Yes
FS-10	Herbaceous Wetland	---	0.021	35.43076	-94.81041	Yes
FS-11	Herbaceous Wetland	---	0.020	35.43352	-94.80995	Not Apparent
FS-12	Ephemeral Waterway	1,619	0.383	35.43226	-94.81050	Yes

6.0 References

Oklahoma Color Digital Ortho-Quadrangle Maps. 2018.

Title 33. Code of Federal Regulations. Part 328. *Definitions of Waters of the United States*.

U.S. Army Corps of Engineers. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, Environmental Laboratory, Vicksburg, MS.

U.S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region*.

U.S. Department of Agriculture. 2012. Field Indicators of Hydric Soils of the United States. Soil Conservation Service.

United States Department of Agriculture, Soil Conservation Service. 1981. Land Resource Regions and Major Land Resource Areas of the United States. Agriculture Handbook 296.

United States Fish and Wildlife Service. May 2019. National Wetland Inventory Map Electronic Data.

United States Geological Survey. 7.5-minute topographic map.

Woods, A.J., Omernik, J.M., Butler, D.R., Ford, J.G., Henley, J.E., Hoagland, B.W., Arndt, D.S., and Moran, B.C., 2005, Ecoregions of Oklahoma (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,250,000).

APPENDIX A

SITE PHOTOGRAPHS



FS-1



FS-3



FS-2



FS-4



FS-3



FS-5



FS-6



FS-9



FS-7



FS-10



FS-8



FS-11



FS-12



FS-12



FS-12

Appendix B

Wetland Data Collection Form

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-1 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43175648 Long: -94.80629528 Datum: NAD 83
 Soil Map Unit Name: Vian Silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) <u>X</u> Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) <u>X</u> Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
---	---

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>6</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-1 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Persicaria hydropiper</i>	80	Yes	OBL
2. <i>Cyperus virens</i>	6	No	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
86 =Total Cover			
50% of total cover: <u>43</u> 20% of total cover: <u>18</u>			

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>80</u>	x 1 = <u>80</u>
FACW species <u>6</u>	x 2 = <u>12</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>86</u> (A)	<u>92</u> (B)
Prevalence Index = B/A = <u>1.07</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-1 W

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	_____ = Total Cover			
	50% of total cover: _____	20% of total cover: _____		
Sapling Stratum (Plot size: _____)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	_____ = Total Cover			
	50% of total cover: _____	20% of total cover: _____		
Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	_____ = Total Cover			
	50% of total cover: _____	20% of total cover: _____		
Herb Stratum (Plot size: _____)				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	_____ = Total Cover			
	50% of total cover: _____	20% of total cover: _____		
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____ = Total Cover			
	50% of total cover: _____	20% of total cover: _____		

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FS-1 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	60	2.5YR 4/6	40	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No _____

Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-2 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43142561 Long: -94.80691721 Datum: NAD 83
 Soil Map Unit Name: Vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) <u>X</u> Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) <u>X</u> Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>6</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-2 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Persicaria hydropiper</i>	40	Yes	OBL
2. <i>Echinochloa crus-galli</i>	30	Yes	FAC
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
70 =Total Cover			
50% of total cover: <u>35</u>		20% of total cover: <u>14</u>	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>70</u> (A)	<u>130</u> (B)
Prevalence Index = B/A = <u>1.86</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-2 W

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	=Total Cover			Prevalence Index worksheet:																
50% of total cover: _____	20% of total cover: _____																			
Sapling Stratum (Plot size: _____)				<table style="width:100%; border:none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	=Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	=Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Herb Stratum (Plot size: _____)				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	=Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No _____																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
	=Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: FS-2 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	70	2.5YR 4/6	30	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-3 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43099436 Long: -94.80673891 Datum: NAD 83
 Soil Map Unit Name: Vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) <u>X</u> Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) <u>X</u> Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <u>x</u> Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <u>x</u> Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>8</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-3 W

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____ 20% of total cover: _____			

<u>Sapling/Shrub Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____ 20% of total cover: _____			

<u>Herb Stratum</u> (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Carex frankii</u>	75	Yes	OBL
2. <u>Cyperus virens</u>	10	No	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
85 =Total Cover			
50% of total cover: <u>43</u> 20% of total cover: <u>17</u>			

<u>Woody Vine Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____ 20% of total cover: _____			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>75</u>	x 1 = <u>75</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u> (A)	<u>95</u> (B)
Prevalence Index = B/A = <u>1.12</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-3 W

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
	_____ = Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: _____	20% of total cover: _____			
Sapling Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ____ 1 - Rapid Test for Hydrophytic Vegetation ____ 2 - Dominance Test is >50% ____ 3 - Prevalence Index is ≤3.0 ¹ ____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
	_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____			
Shrub Stratum (Plot size: _____)				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
	_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____			
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No _____
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
	_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____			
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
	_____ = Total Cover			
50% of total cover: _____	20% of total cover: _____			
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: FS-3 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	80	2.5YR 4/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> (outside MLRA 127, 147, 148)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	MLRA 136)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-4 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43099436 Long: -94.80673891 Datum: NAD 83
 Soil Map Unit Name: vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) <u>X</u> Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <u>x</u> Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <u>x</u> Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-4 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Ludwigia decurrens</i>	90	Yes	OBL
2. <i>Cyperus virens</i>	5	No	FACW
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
95 =Total Cover			
50% of total cover: <u>48</u>		20% of total cover: <u>19</u>	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>90</u>	x 1 = <u>90</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>95</u> (A)	<u>100</u> (B)
Prevalence Index = B/A = <u>1.05</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-4 W

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover			Prevalence Index worksheet:																
50% of total cover: _____	20% of total cover: _____																			
Sapling Stratum (Plot size: _____)				<table style="width:100%; border:none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Herb Stratum (Plot size: _____)				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No _____																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: FS-4 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	80	2.5YR 4/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-5 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43099436 Long: -94.80673891 Datum: NAD 83
 Soil Map Unit Name: Vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) <u>X</u> Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <u>x</u> Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <u>x</u> Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-5 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Persicaria hydropiper</i>	10	No	OBL
2. <i>Cyperus esculentus</i>	40	Yes	FACW
3. <i>Carex frankii</i>	50	Yes	OBL
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
100 =Total Cover			
50% of total cover: <u>50</u>		20% of total cover: <u>20</u>	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>60</u>	x 1 = <u>60</u>
FACW species <u>40</u>	x 2 = <u>80</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>140</u> (B)
Prevalence Index = B/A = <u>1.40</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-5 W

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover			Prevalence Index worksheet:																
50% of total cover: _____	20% of total cover: _____																			
Sapling Stratum (Plot size: _____)				<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Shrub Stratum (Plot size: _____)				<p>Hydrophytic Vegetation Indicators:</p> <p>____ 1 - Rapid Test for Hydrophytic Vegetation</p> <p>____ 2 - Dominance Test is >50%</p> <p>____ 3 - Prevalence Index is ≤3.0¹</p> <p>____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p>____ Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Herb Stratum (Plot size: _____)				<p>Definitions of Five Vegetation Strata:</p> <p>Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).</p> <p>Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p>Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p>Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p>Woody Vine – All woody vines, regardless of height.</p>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Woody Vine Stratum (Plot size: _____)				<p>Hydrophytic Vegetation Present? Yes _____ No _____</p>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: FS-5 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	80	2.5YR 4/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-6 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43161861 Long: 35.43161861 Datum: NAD 83
 Soil Map Unit Name: Vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) <u>X</u> Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <u>x</u> Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <u>x</u> Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
--	--

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-6 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Persicaria hydropiper</i>	10	No	OBL
2. <i>Eleocharis palustris</i>	40	Yes	OBL
3. <i>Carex frankii</i>	30	Yes	OBL
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
80 =Total Cover			
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>80</u>	x 1 = <u>80</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>80</u> (B)
Prevalence Index = B/A = <u>1.00</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-6 W

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ =Total Cover			Prevalence Index worksheet:																
	50% of total cover: _____	20% of total cover: _____																		
Sapling Stratum (Plot size: _____)				<table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:right">Total % Cover of:</td> <td style="width:50%; text-align:left">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ =Total Cover																			
	50% of total cover: _____	20% of total cover: _____																		
Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ =Total Cover																			
	50% of total cover: _____	20% of total cover: _____																		
Herb Stratum (Plot size: _____)				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	_____ =Total Cover																			
	50% of total cover: _____	20% of total cover: _____																		
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No _____																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
	_____ =Total Cover																			
	50% of total cover: _____	20% of total cover: _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: FS-6 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	80	2.5YR 4/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-7 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43293683 Long: -94.81070163 Datum: NAD 83
 Soil Map Unit Name: Vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input checked="" type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <u>x</u> No <u> </u> Depth (inches): <u>1</u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>4</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-7 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. <i>Eleocharis palustris</i>	10	No	OBL
3. <i>Carex frankii</i>	80	Yes	OBL
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
90 =Total Cover			
50% of total cover: <u>45</u>		20% of total cover: <u>18</u>	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>90</u>	x 1 = <u>90</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>90</u> (A)	<u>90</u> (B)
Prevalence Index = B/A = <u>1.00</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-7 W

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover			Prevalence Index worksheet:																
50% of total cover: _____	20% of total cover: _____																			
Sapling Stratum (Plot size: _____)				<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Shrub Stratum (Plot size: _____)				<p>Hydrophytic Vegetation Indicators:</p> <p>____ 1 - Rapid Test for Hydrophytic Vegetation</p> <p>____ 2 - Dominance Test is >50%</p> <p>____ 3 - Prevalence Index is ≤3.0¹</p> <p>____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p>____ Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Herb Stratum (Plot size: _____)				<p>Definitions of Five Vegetation Strata:</p> <p>Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).</p> <p>Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p>Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p>Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p>Woody Vine – All woody vines, regardless of height.</p>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Woody Vine Stratum (Plot size: _____)				<p>Hydrophytic Vegetation Present? Yes _____ No _____</p>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: FS-7 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	70	2.5YR 4/6	30	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-8 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43393938 Long: -94.81030392 Datum: NAD 83
 Soil Map Unit Name: Vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <u>x</u> Crayfish Burrows (C8) <u>X</u> Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-8 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Eupatorium serotinum</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>
2. <u><i>Eleocharis compressa</i></u>	<u>40</u>	<u>Yes</u>	<u>OBL</u>
3. <u><i>Cyperus virens</i></u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
4. <u><i>Cyperus esculentus</i></u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
=Total Cover			
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>130</u> (B)
Prevalence Index = B/A = <u>1.63</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-8 W

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	=Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: _____	20% of total cover: _____			
Sapling Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	=Total Cover			Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover: _____	20% of total cover: _____			
Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	=Total Cover			
50% of total cover: _____	20% of total cover: _____			
Herb Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	=Total Cover			
50% of total cover: _____	20% of total cover: _____			
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	=Total Cover			
50% of total cover: _____	20% of total cover: _____			

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FS-8 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	80	2.5YR 4/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-9 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.4329464 Long: -94.80965497 Datum: NAD 83
 Soil Map Unit Name: Vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <u>x</u> Crayfish Burrows (C8) <u>X</u> Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
--	--

Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-9 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u><i>Eupatorium serotinum</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>
2. <u><i>Eleocharis compressa</i></u>	<u>5</u>	<u>No</u>	<u>OBL</u>
3. <u><i>Cyperus virens</i></u>	<u>10</u>	<u>No</u>	<u>FACW</u>
4. <u><i>Cyperus esculentus</i></u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
65 =Total Cover			
50% of total cover: <u>33</u>		20% of total cover: <u>13</u>	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>5</u>	x 1 = <u>5</u>
FACW species <u>50</u>	x 2 = <u>100</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>65</u> (A)	<u>135</u> (B)
Prevalence Index = B/A = <u>2.08</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-9 W

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	_____ =Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
50% of total cover: _____	20% of total cover: _____			
Sapling Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	_____ =Total Cover			Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.
50% of total cover: _____	20% of total cover: _____			
Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
	_____ =Total Cover			
50% of total cover: _____	20% of total cover: _____			
Herb Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
	_____ =Total Cover			
50% of total cover: _____	20% of total cover: _____			
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	_____ =Total Cover			
50% of total cover: _____	20% of total cover: _____			

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: FS-9 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	80	2.5YR 4/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No _____

Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-10 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43161861 Long: 35.43161861 Datum: NAD 83
 Soil Map Unit Name: Vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) <u>X</u> Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) <u>X</u> Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <u>x</u> Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) <u>x</u> Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-10 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Persicaria hydropiper</i>	10	No	OBL
2. <i>Eleocharis palustris</i>	40	Yes	OBL
3. <i>Carex frankii</i>	30	Yes	OBL
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
80 =Total Cover			
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>80</u>	x 1 = <u>80</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>80</u> (B)
Prevalence Index = B/A = <u>1.00</u>	

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-10 W

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover			Prevalence Index worksheet:																
50% of total cover: _____	20% of total cover: _____																			
Sapling Stratum (Plot size: _____)				<table style="width:100%; border:none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align:center">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Herb Stratum (Plot size: _____)				Definitions of Five Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody Vine – All woody vines, regardless of height.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No _____																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
	_____ = Total Cover																			
50% of total cover: _____	20% of total cover: _____																			
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: FS-10 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	80	2.5YR 4/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

Project/Site: Oklahoma Veterans Center City/County: Sallisaw, Sequoyah Sampling Date: 7-22-19
 Applicant/Owner: OK Dept. Veterans Affairs State: OK Sampling Point: FS-11 W
 Investigator(s): STV, SRV Section, Township, Range: S8, T11N, R24E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N, MLRA 118A Lat: 35.43352171 Long: -94.80994898 Datum: NAD 83
 Soil Map Unit Name: Vian silt loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input checked="" type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>2</u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches): <u>4</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No <u> </u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: FS-11 W

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Carex frankii</u>	<u>80</u>	<u>Yes</u>	<u>OBL</u>
2. <u>Echinochloa crus-galli</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>
3. <u>Juncus effusus</u>	<u>15</u>	<u>No</u>	<u>FACW</u>
4. <u>Cyperus esculentus</u>	<u>15</u>	<u>No</u>	<u>FACW</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
<u>140</u> =Total Cover			
50% of total cover: <u>70</u>		20% of total cover: <u>28</u>	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>80</u>	x 1 = <u>80</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>140</u> (A)	<u>230</u> (B)
Prevalence Index = B/A = <u>1.64</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: FS-11 W

	Absolute % Cover	Dominant Species?	Indicator Status																	
Tree Stratum (Plot size: _____)				<p>Dominance Test worksheet:</p> <p>Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)</p> <p>Total Number of Dominant Species Across All Strata: _____ (B)</p> <p>Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)</p> <hr/> <p>Prevalence Index worksheet:</p> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table> <hr/> <p>Hydrophytic Vegetation Indicators:</p> <p>___ 1 - Rapid Test for Hydrophytic Vegetation</p> <p>___ 2 - Dominance Test is >50%</p> <p>___ 3 - Prevalence Index is $\leq 3.0^1$</p> <p>___ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)</p> <p>___ Problematic Hydrophytic Vegetation¹ (Explain)</p> <p>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</p> <hr/> <p>Definitions of Five Vegetation Strata:</p> <p>Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).</p> <p>Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.</p> <p>Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.</p> <p>Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, <u>and</u> woody plants, except woody vines, less than approximately 3 ft (1 m) in height.</p> <p>Woody Vine – All woody vines, regardless of height.</p> <hr/> <p>Hydrophytic Vegetation Present? Yes _____ No _____</p>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____	_____	_____	=Total Cover																
	50% of total cover: _____	20% of total cover: _____																		
Sapling Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____	_____	_____	=Total Cover																
	50% of total cover: _____	20% of total cover: _____																		
Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	_____	_____	_____	=Total Cover																
	50% of total cover: _____	20% of total cover: _____																		
Herb Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	_____	_____	_____	=Total Cover																
	50% of total cover: _____	20% of total cover: _____																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
	_____	_____	_____	=Total Cover																
	50% of total cover: _____	20% of total cover: _____																		
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: FS-11 W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 4/2	80	2.5YR 4/6	20	C	PL/M	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (MLRA 136)	<input type="checkbox"/> (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> (MLRA 136, 147)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> (outside MLRA 127, 147, 148)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Very Shallow Dark Surface (F22)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N,	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	MLRA 136)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 122, 136)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147, 148)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Remarks:

Nationwide Permit 39 - Commercial and Institutional Developments

Effective Date: March 19, 2017; Expiration Date: March 18, 2022

(NWP Final Notice, 82 FR 1860)

Nationwide Permit 39 - Commercial and Institutional Developments. Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of commercial and institutional building foundations and building pads and attendant features that are necessary for the use and maintenance of the structures. Attendant features may include, but are not limited to, roads, parking lots, garages, yards, utility lines, storm water management facilities, wastewater treatment facilities, and recreation facilities such as playgrounds and playing fields. Examples of commercial developments include retail stores, industrial facilities, restaurants, business parks, and shopping centers. Examples of institutional developments include schools, fire stations, government office buildings, judicial buildings, public works buildings, libraries, hospitals, and places of worship. The construction of new golf courses and new ski areas is not authorized by this NWP.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

Note: For any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission line, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

A. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/ or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. **Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation. (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States. (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those

species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. **Adverse Effects from Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. **Management of Water Flows.** To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the preconstruction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. **Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. **Removal of Temporary Fills.** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. **Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to

ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers.

(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre- construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. The permittee shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.

17. Tribal Rights. No NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

18. Endangered Species.

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. If preconstruction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity

or that utilize the designated critical habitat that might be affected by the proposed activity. The district engineer will determine whether the proposed activity “may affect” or will have “no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have “no effect” on listed species or critical habitat, or until ESA section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWP.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take” means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether “incidental take” permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of

the National Historic Preservation Act. If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the preconstruction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed.

(d) For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown

historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWP 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require preconstruction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require preconstruction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. Restored riparian areas should consist of native

species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWP, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2- acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee- responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee responsible mitigation may be environmentally preferable if there are no mitigation banks or in- lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3- acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will

continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

30. **Compliance Certification.** Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

- (a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
- (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
- (c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. **Activities Affecting Structures or Works Built by the United States.** If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a “USACE project”), the prospective permittee must submit a preconstruction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission is not authorized by NWP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. **Pre-Construction Notification.** (a) **Timing.** Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district

engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to

delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) All NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iv) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the

ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or email that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the preconstruction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of preconstruction notifications to expedite agency coordination.

B. District Engineer's Decision.

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the individual crossings of waters of the United States to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects. For those NWPs that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed and a 1/2-acre limit (i.e., NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52), the loss of intermittent and ephemeral stream bed, plus any other losses of jurisdictional waters and wetlands, cannot exceed 1/2- acre.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the

NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters (e.g., streams). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) That the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31, or to evaluate PCNs for activities authorized by NWPs 21, 49, and 50), with activity specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

C. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

D. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term “discharge” means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the acres or linear feet of stream bed that are filled or excavated as a result of the regulated activity. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Preconstruction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where preconstruction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Protected tribal resources: Those natural resources and properties of traditional or customary religious or cultural importance, either on or off Indian lands, retained by, or reserved by or for, Indian tribes through treaties, statutes, judicial decisions, or executive orders, including tribal trust resources.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Reestablishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: Reestablishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or

maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an NWP authorization. **Stormwater management:** Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: (1) Held in trust by the United States for the benefit of any Indian tribe or individual; or (2) held by any Indian tribe or individual subject to restrictions by the United States

against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States. If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of “waterbodies” include streams, rivers, lakes, ponds, and wetlands.

ADDITIONAL INFORMATION

Information about the U.S. Army Corps of Engineers regulatory program, including nationwide permits, may also be accessed at <http://www.swt.usace.army.mil/Missions/Regulatory.aspx> or <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx>

APPENDIX D

BIOLOGICAL ASSESSMENT

BIOLOGICAL ASSESSMENT

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Sallisaw, Sequoyah County, Oklahoma**

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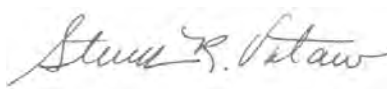
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July 2019



**Steven R. Votaw
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1.0 PROJECT OVERVIEW

1.1 Federal Nexus

A Biological Assessment (BA) was prepared to address the potential effects of the on the federally-listed threatened or endangered (T&E) species present in or known to migrate through Sequoyah County, Oklahoma. Section 7(c) of the Endangered Species Act (ESA) of 1973, as amended, requires that, through consultation with the U.S. Fish and Wildlife Service (USFWS), federal actions do not jeopardize the continued existence of any threatened, endangered, or proposed species or result in the destruction or adverse modification of critical habitat. The federal action agency associated with the proposed project is the U.S. Department of Veterans Affairs (VA). This BA evaluates the potential effects of the proposed project on species that are federally listed under the ESA. The general location map is provided on **Figure 1**.



1.2 Project Description

This BA was prepared to evaluate the potential impacts to federally-listed species which may be present within or utilize the existing habitats adjacent to the proposed project area. Some wildlife species afforded by protection under the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act and others are also addressed herein. The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads.

The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central “main street” promenade. Each resident household wing will contain 18 private residential rooms, serving, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

1.3 Project Area Setting

Project Location

The project is located approximately 2 miles south of Sallisaw, OK on the west side of U.S. Highway 59. The project area is situated on the Sallisaw 7.5-minute USGS topographic map in Section 8, Township 11 North, Range 24 East in Sequoyah County, Oklahoma.

Ecoregion

The property is located in the Arkansas Valley Plains ecoregion (37D) is underlain by Pennsylvanian-age shale, sandstone, and coal. It was once covered by a distinctive mosaic of savanna, woodland, forest, and prairie. Prairie was most extensive on fire-prone sites with moisture deficient soils derived from shale. Today, its undulating plains are mostly pastureland or hayland, whereas its scattered hills and ridges remain wooded; cropland is much less extensive than in the Arkansas River Floodplain (37b), and wooded areas are less extensive than in Ecoregions 36, 37a, and 38. Poultry farming and surface coal mining are other important land uses. Some of the larger streams in Ecoregion 37d still possess sufficient habitat and water quality to support exceptional assemblages of aquatic fauna. Flow in the Poteau River system varies widely; during droughts, tributaries stop or nearly stop flowing, but after heavy precipitation, both flow and turbidity increase, and flooding commonly occurs.

Physiography

Undulating plains interrupted by scattered hills, and ridges in the structural Arkoma Basin. Streams have long, wide, deep pools that are occasionally interrupted by short, high gradient riffles. Riffles generally have gravel substrates. During protracted droughts and during most summers, streams typically have little or no flow. In streams that cease flowing, pool areas may be 0.4 miles long and over 10 feet deep.

Geology

Mantled by Quaternary alluvium, terrace deposits, and sandy loam to silty clay loam decomposition residuum (containing sandstone fragments and shale chips). The area is mostly underlain by Pennsylvanian-age shale and sandstone with intermixed coal seams.

Vegetation

The natural vegetation types include cross timbers, oak–hickory–shortleaf pine forest, and mosaic of tall grass prairie dominated by big bluestem, little bluestem, switchgrass, and Indiangrass, and oak–hickory forest. Native on fire-prone plains with moisture deficient soils: scattered prairies with a few large oaks. Wetland areas are present in upland depressions and on flats with impermeable, clay-rich soils or pans. Lush deciduous forests are native along streams. The undulating upland areas also exhibit extensive savanna and woodland composed of post oak, blackjack oak, southern red oak, hickory, and understory grasses are native. The rugged areas more are dominated by post oak, black oak, white oak, hickories, maple, beech, elm, shortleaf pine, planted loblolly pine, and increasingly, eastern redcedar occur. Floodplains forests generally contain eastern cottonwood, sycamore, southern red oak, green ash, hackberry, pecan, sweetgum, black willow, willow oak, white oak, and water oak.

Land Cover and Land Use

Since a large portion of this ecoregion has been converted to agriculture, the wooded areas are largely restricted to riparian areas, poorly-drained sites, and steepest slopes. Pastureland and hay land are extensive but cropland is limited. Poultry and livestock farming are important land uses. Soybeans, grain sorghum, wheat, and limited amounts of corn are typically the most frequently planted crops. Natural gas production, logging, and surface coal mining occur.

2.0 FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

The official list of threatened and endangered species potentially present within or adjacent to the action area was generated for the proposed project by the United States Fish and Wildlife Service's on-line Information, Planning, and Conservation (IPAC) decision support system (USFWS, 2019). The federally-listed species and associated habitat requirements identified that may be affected by the proposed project include the American burying beetle, least tern, red knot, piping plover, gray bat, Indiana bat, Ozark big-eared bat, and the Northern Long-eared Bat (NLEB) as shown in **Table 1**. The official species list was obtained from the USFWS and provided in *Appendix A*. The Oklahoma Biological Survey's Natural Heritage Inventory (ONHI) was also contacted to obtain any occurrence information on federal and state threatened, endangered or candidate species within or near the project area and is also provided in *Appendix A*. Two occurrences for the American burying beetle were identified in the vicinity of the project area. No other known species presence records within or near the proposed action area were provide or known.

Identification of the dominant plant species relative to the habitat requirements for each listed species was performed through random sampling within the dominant and homogenous vegetation areas. The primary homogenous habitats within the action area were documented and evaluated to determine if the habitat requirements exist for the respective threatened or endangered species as having the potential to be present in or migrate through Sequoyah County. No critical habitat for any of the listed species has been identified within or near the proposed project area.

3.0 ENVIRONMENTAL BASELINE

3.1 Ecological Processes and Conditions

Soils

The Natural Resources Conservation Service (NRCS) Web Soil Survey was used to identify soil units within the study area NRCS (2019). Three soil units identified were identified within the proposed action. The mapped soil series include Stigler silt loam, 0 to 1 percent slopes, Kanima very gravelly silty clay loam, 5 to 30 percent slopes, and Vian silt loam, 1 to 3 percent slopes.

Climate

The climate is and mesothermal (Oklahoma Climatological Survey, 2019). The average annual precipitation varies from 42 in the north and to 48 inches in the southern part of the county. Mean minimum temperatures in January is 26 degrees while mean maximum temperatures reach 91 degrees in July.

Vegetation

The NEPA study area is approximately 40 acres in size however the entire project area will not be affected. The dominant species identified included fescue (*Festuca pratensis*), Bermuda grass (*Cynodon dactylon*), white clover (*Trifolium repens*), annual ragweed (*Ambrosia artemisiifolia*), Johnson grass

(*Sorghum halapense*), yellow hop clover (*Trifolium aureum*), mare’s tail (*Conyza canadensis*), hedge parsley (*Torillis arvensis*), smartweed (*Persicaria hydropiper*), green flat sedge (*Cyperus virens*), late flowering boneset (*Eupatorium serotinum*), horse nettle (*Solanum carolinense*), thistle (*Cirsium sp.*), barnyard grass (*Echinochloa crus-galli*), Dallis grass (*Paspalum sp.*), chufa (*Carex esculantus*), Franks sedge (*Carex frankii*), water primrose (*Ludwigia decurrens*), creeping spikerush, (*Eleocharis palustris*), and flat-stemmed spikerush (*E. compressa*). The dominant woody and vine vegetation consisted of American elm (*Ulmus americana*) and sugarberry (*Celtis laevigata*).

3.2 Species Habitat Within the Action Area

The survey area was canvassed to identify and describe the habitat for the listed T&E species that could be present within the proposed action area. The federally listed species and their habitat requirements are provided below.

Table 1 - Federally Listed T&E Species			
Species/Critical Habitat	Listing Status	Habitat Requirements	Status within Action Area
American Burying Beetle (<i>Nicrophorus americana</i>)	Endangered	Breeding habitat: undisturbed, mature oak-hickory forests with substantial litter layers and deep, loose soils over grasslands or bottomland forests. Feeding habitat: undisturbed grasslands, grazed pasture, riparian zones, and oak-hickory forest, as well as a variety of various soil types.	Suitable habitat was identified within the project area. A presence/absence survey may be required.
Least Tern (<i>Sterna antillarum</i>)	Endangered	Islands or sandbars along large rivers, mostly clear of vegetation for nesting and loafing and with water nearby for fishing.	No suitable nesting or foraging areas were observed. Based on the planned construction activities, Least terns should not be affected.
Piping Plover (<i>Charadrius melodus</i>)	Threatened	Migratory stopover habitat includes sparsely vegetated sandy or gravelly shorelines and islands associated with the major river systems. Species does not nest in OK.	No suitable foraging habitat present within the project corridor.
Red Knot (<i>Calidris canutus rufa</i>)	Threatened	Coastal areas, mudflats on lakes or reservoirs, and may use sandbars along the major river systems for forage and resting areas. Species does not nest in OK.	No suitable habitat was identified within the project corridor.
Ozark Big-eared Bat (<i>Corynorhinus townsendii ingens</i>)	Endangered	The Ozark Big-eared Bat lives in limestone caves found in forested portions of the Ozark Highlands. Most of this bat population occurs in Adair, Cherokee and Delaware counties in Oklahoma, and in Arkansas, and historically in southwest Missouri. These bats feed above the tree canopy and in gaps and clearing within the forest, usually associated with oak and oak-hickory forest types.	Suitable habitat was not identified within the proposed action area.
Gray Bat (<i>Myotis grisescens</i>)	Endangered	Limestone caves. Forage on aquatic and terrestrial insects near streams and rivers.	The proposed project lies within the foraging habitat range for the gray bat. No caves are present in or near the project area.
Northern Long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened	Forested areas containing live and dead trees with exfoliating, curling, or sloughing bark. Forages on primarily terrestrial insects among canopy and interior forest openings.	Potentially suitable roosting, maternity, and/or foraging habitat was not identified within or adjacent to the study area.
Indiana Bat (<i>Myotis sodalis</i>)	Endangered	Forested areas containing live and dead trees with exfoliating, curling, or sloughing bark. Forages on aquatic and terrestrial insects near streams and rivers and forest openings.	Potentially suitable roosting, maternity, and/or foraging habitat was not identified within or adjacent to the study area.

USFWS, 2019

American Burying Beetle

The American Burying Beetle (ABB) is a large beetle with a shiny black appearance with four orange-red spots on the wing covers (elytra). A large red spot on the pronotum of the beetle is indicative of the species. The habitat requirements for this beetle are not fully known; however, the ABB is considered a habitat generalist and is known to occupy a diverse range of habitats. Habitats associated with the ABB include open grasslands, forests, as well as transitional areas. Suitable habitat was identified with the proposed action area. A presence/absence survey was conducted in June 2019 during which no ABB were captured. The report of survey is provided in **Appendix B**.

Least Tern

The least tern is a small migratory shorebird that breeds along inland river systems in Oklahoma. The least tern typically arrives in April and occupies breeding sites from June through August and forages on small fish in shallow water along sandbars associated within large rivers and reservoirs. Nesting habitat includes bare and sparsely vegetated sand and gravel bars. Currently, they occur as small remnant colonies throughout their former range. In Oklahoma, the least tern nests along the Red River, Arkansas River, Cimarron River, and Canadian River, as well as at the Salt Plains National Wildlife Refuge (USFWS, 1985). No suitable foraging habitat or nesting areas for the least tern were observed within the action area.

Piping Plover

The piping plover is a small, stocky, sandy-colored bird resembling a sandpiper. The habitat requirements for the piping plover include sandy shorelines on lakes and sandbars along the major river systems for forage and resting areas. The piping plover is migratory in Oklahoma in the spring and fall. They do not generally nest in Oklahoma. Plovers often gather in groups on undisturbed beaches prior to their southward migration. By mid-September, both adult and young plovers will have departed for their wintering areas (USFWS, 2011). No suitable habitat for the piping plover was observed within the action area.

Red Knot

The Red Knot is a rather large sandpiper that breeds in far northern Canada on tundra from May to June. Fall migrations typically begin in late July through mid-August where the species may travel as far as the coasts of South America. Migratory habitat requirements for the red knot include coastal areas, mudflats on lakes or reservoirs, and may use sandbars along the major river systems for forage and resting areas. This species is considered migratory in or through Oklahoma in the spring and fall. No potentially suitable habitat for this species was not identified.

Gray Bat

The Gray bat is a small bat with grayish-brown fur and a slightly wooly appearance. Its body is approximately five inches in length and its wingspan is 11 to 13 inches. Gray Bats feed on a variety of small, night-flying insects. Gray bats live in colonies within limestone caves in the Ozark region and occupy caves throughout the year. However, different caves are occupied during the summer and winter months. When foraging for their insect food, Gray Bats hunt over forested habitats, waterways, and wetlands. Gray bats are known to forage up to a distance of 20 miles from caves. The Gray Bat is a migratory species that is found in Oklahoma only during the late spring and summer months (April through September). In the summer, nine colonies of Gray Bats are known to occupy caves in forested habitats in Ottawa, Delaware, Cherokee and Adair counties. In the fall, these bats migrate to the east and hibernate within caves in Arkansas and Kentucky. No known caves or summer roost areas for this species are known present or near the project area. Suitable foraging habitat may be present within the proposed

action area and primarily associated with the identified waterway and wetland areas. However, based on the lack of known species occurrence records, no identified or known caves or summer roost areas, possibly winter construction period, and marginally suitable foraging habitat, no impacts to this species are anticipated.

Northern Long-eared Bat

The Northern long-eared bat (NLEB) is a small bat associated with mature, interior forest environments. Unlike most other bats, the northern long-eared forages along and within wooded hillsides and ridgelines. This species is also much more solitary in its roosting and hibernating habits than are other bats, preferring to hide in tight crevices and holes over hanging out in open areas within caves. Sometimes, only the nose and ears of northern long-eared bats are visible when it hibernates. Northern long-eared bats are a migratory species found in Oklahoma during the late spring, summer, and early fall months. Suitable roosting and/or foraging habitat was not observed within the proposed action area.

Indiana Bat

The Indiana bat is a small bat, less than 2 inches in length, with dark gray to brownish black fur. Characteristics that help distinguish it from similar species include a pinkish nose, small hind feet with sparse, short hairs that do not extend beyond the toes, and a calcar (the spur extending from the ankle) that has a slight keel. For hibernation, Indiana bats prefer limestone caves with stable temperatures of 39 to 46 degrees F. Few caves meet the specific roost requirements of the species. Summer habitat requirements are not completely known for the Indiana bat. Although floodplain and riparian forests are important habitats for both foraging and roosting, other habitats are used. Indiana bats typically roost in dead trees and/or under loose or furling bark during the summer. Traditional forage areas or features associated with this species include forested uplands, forested fence rows, open areas between forested areas, and riparian zones. are a migratory species found in Oklahoma during the late spring, summer, and early fall months. Similar to the NLEB, suitable roosting and/or foraging habitat was not observed within the proposed action area.

Ozark big-eared Bat

The Ozark big-eared bat is an obligate cave species associated with limestone karst features found in forested portions of the Ozark Highlands. Most of this bat population occurs in Adair, Cherokee and Delaware counties in Oklahoma, and in Arkansas, and historically in southwest Missouri. These bats feed above the tree canopy and in gaps and clearings within the forest, usually associated with oak and oak-hickory forest types. Potentially suitable habitat for this bat is not present adjacent to or within the project area. The presence of this species is not anticipated.

Bald Eagle

The Bald Eagle (*Haliaeetus leucocephalus*) is a raptor protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Activities that would disturb eagles are prohibited under the Bald and Golden Eagle Protection Act. "Disturb" means to agitate an eagle to the degree that causes or is likely to (1) cause injury, (2) interfere with breeding, feeding or sheltering behavior, or (3) nest abandonment. The bald eagle prefers large trees or high cliffs along large waterways for perching and nesting purposes. Fish is the preferred diet of eagles, but they also eat small mammals, waterfowl, turtles and dead animals. Preferred foraging areas include quiet coastal areas, rivers or lakeshores with large tall trees. Methods used to identify suitable habitat included investigations of waterbodies potentially used for foraging, large nesting or perching trees adjacent to such water features and other areas which Bald Eagles are known to use. Potential or suitable habitat was identified along the Arkansas River. However, no Bald Eagles or nests were observed during the site visit. This project is not expected to impact the Bald Eagle.

Migratory Birds

Migratory bird species are protected under the Migratory Bird Treaty Act (MBTA) as amended. The MBTA prohibits the take of any migratory bird without authorization for the USFWS. Marginally suitable nesting habitat was present for structure nesting (trees) species and potentially suitable habitat for ground nesting species was considered present. However, no nests were observed within the study area.

Survey Area Assessment

On July 23, 2019, a field survey was conducted within the proposed action area. The habitats were evaluated using pedestrian transects to identify the different types of vegetative communities. Four habitat assessment sample sites (HASS) were utilized to identify and describe the dominant habitats within the action area to determine if any of the federally-listed T&E species or their habitat were present. The descriptions for each are provided below. Soil characteristics were also investigated for confirmation of accurate mapping. Photographs of the project area are provided at *Appendix C*. Habitat assessment sample site (HASS) locations are shown on *Figure 2 and Figure 3*.

HASS-1 and 4 are associated with an open field area utilized for livestock grazing. The range condition is described as poor associated with improved grasses rather than native species. The dominant plants included chufa (*Carex esculentus*), Bermuda grass (*Cynodon dactylon*), annual ragweed (*Ambrosia artemisiifolia*), fescue (*Festuca pratensis*), and Dallis grass (*Paspalum sp.*). Except for the ABB, no habitat for any of the listed species was observed.

HASS-2 was situated adjacent to an emergent, seasonally inundated, herbaceous wetland area dominated by smartweed (*Persicaria piperoides*) and barnyard grass (*Echinochloa crus-galli*). No habitat for any of the listed species was observed except for the ABB and possible Gray bat foraging.

HASS-3 was associated with an ephemeral, shallow, channelized and small waterway with no wooded riparian zone. The dominant plant species included water primrose, Franks sedge, creeping spike rush. Except for marginally suitable foraging habitat for the Gray bat, no suitable habitat for any of the listed species was observed at this location. Potential ABB habitat would be present along the waterway perimeter.

4.0 ANALYSIS OF EFFECTS

4.1 Direct Effects

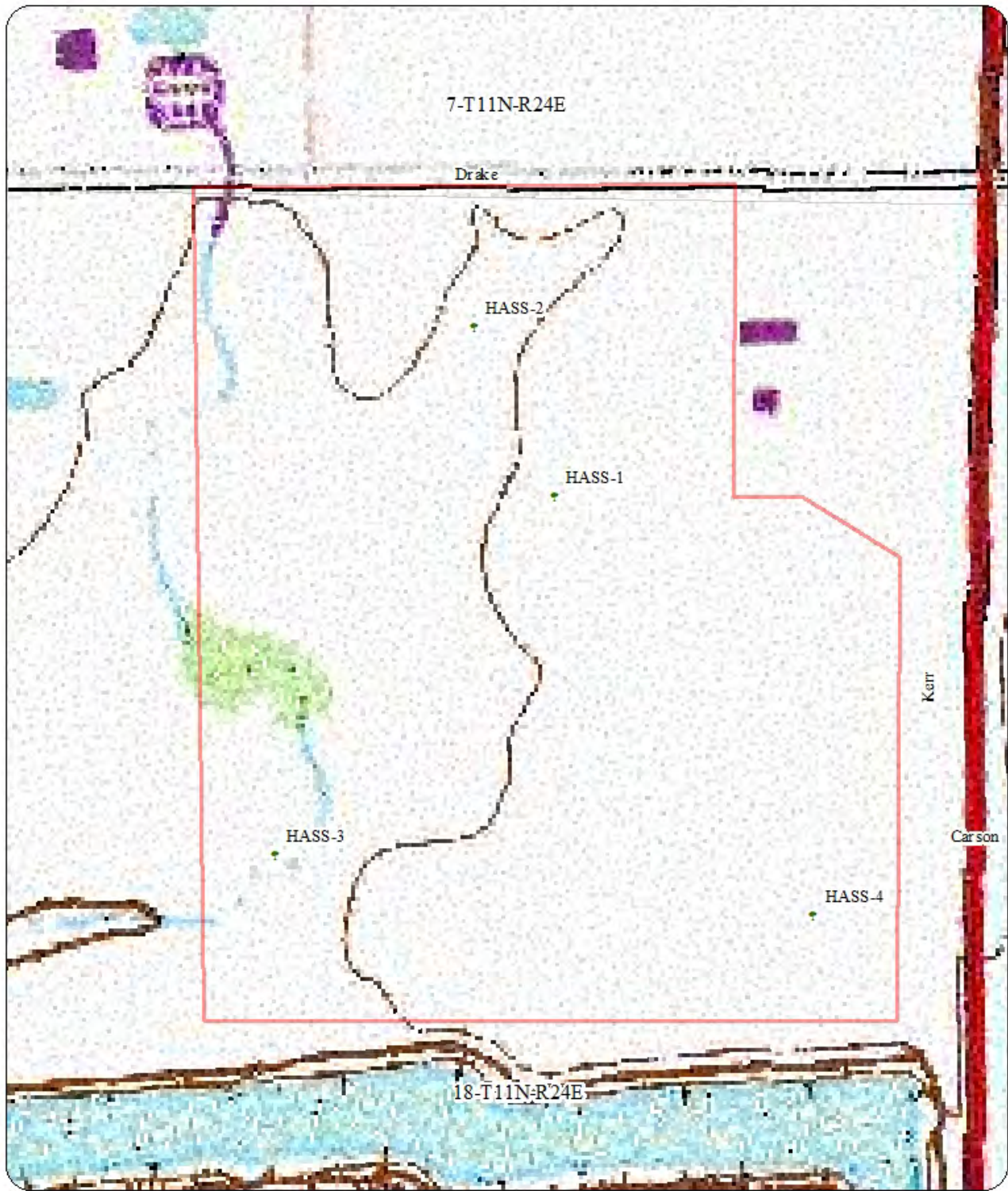
Direct effects within the action area would consist of permanent and temporary impacts. Permanent impacts would be associated with conversion of herbaceous habitat areas to paved surfaces, buildings, and associated landscaped areas. The primary habitat disturbance would be associated with site preparation activities in advance of roadway, parking area, building and associated infrastructure features. Temporary effects would occur may occur on the areas adjacent to permanent structures or features, however such areas would be graded to match existing adjacent ground surface contours, seeded and/or allowed to re-vegetate.

4.2 Indirect Effects

No other development associated with proposed project is expected. No uses or projects are anticipated that would be tangential to the proposed. Provided no additional habitat disturbances are undertaken, the proposed project should have no indirect effects on the listed species.

4.3 Interrelated and Interdependent Actions and Activities

No interrelated or interdependent actions are expected or planned as the result of the proposed project. The termini on either end of the proposed project area have already been constructed.

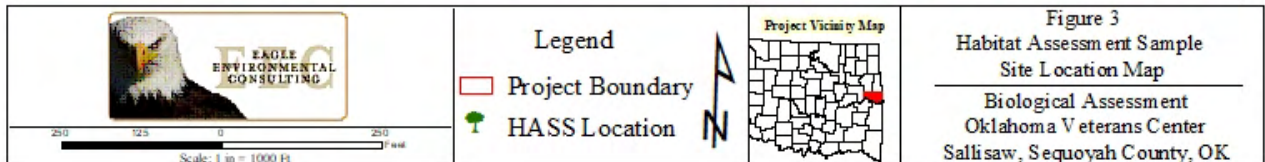


Legend

- Project Boundary
- HASS Location



Figure 2
Habitat Assessment Sample Site Location Map
Biological Assessment
Oklahoma Veterans Center
Sallisaw, Sequoyah County, OK



5.0 CONCLUSION

Threatened and Endangered Species

Suitable habitat is present for the American Burying Beetle (ABB) within the action area. The determination of effect will be May Affect, unlikely to adversely affect. Based on the anticipated construction start date, an ABB survey may be required. The USFWS proposed to down-list species from endangered to threatened in May 2019. The final decision is not expected until May 2020, until such time all survey protocols and consultation measures remain effective pursuant to the current guidance for the species.

Based on the lack of suitable habitat, the proposed action should have a no effect determination for the Least Tern, Piping Plover, Red Knot, Northern long-eared bat, Gray bat, and Ozark big-eared bat.

The Species Conclusion Table (*Table 2*) below provides the documentation and rationale relative to the potential affect to each of the federally-listed species:

Table 2 Species Conclusion Table			
Species/Critical Habitat	Habitat Determination	USFWS Consultation	ESA Determination
American Burying Beetle	Suitable Habitat	Not Required	May Affect, not likely to adversely affect
Least Tern	No Suitable Habitat Present	Not Required	No Effect
Piping Plover	No Suitable Habitat Present	Not Required	No Effect
Red Knot	No Suitable Habitat Present	Not Required	No Effect
Whooping Crane	No Suitable Habitat Present	Not Required	No Effect
Gray Bat	No Suitable Habitat Present	Not Required	No Effect
Northern Long eared Bat	No Suitable Habitat Present	Not Required	No Effect
Indiana Bat	No Suitable Habitat Present	Not Required	No Effect
Ozark big-eared Bat	No Suitable Habitat Present	Not Required	No Effect

Bald Eagle

Records for bald eagle presence at or near the project area have not been documented. No suitable habitat was identified within the action area for the bald eagle. No bald eagles or nests were observed during the site visit. This project is not expected to impact the bald eagle.

Migratory Birds

No effectively suitable nesting habitat is present within the project area. No bird nests were observed within the area planned for the proposed action. No active swallow nests were observed within the action area. Construction is encouraged to occur between August 15 and March 31 to avoid the nesting season to avoid potential impact to migratory birds. Provided construction can be conducted within the non-nesting season, no adverse effects are anticipated to migratory or non-migratory birds.

6.0 REFERENCES

Fagin, T. 2019. Written response from the Oklahoma Natural Heritage Inventory. July 2019.

Natural Resources Conservation Service. 2019. Web Soil Survey.

United States Fish and Wildlife Service. 2019. Information, Planning, and Conservation (IPAC) decision support system.

Woods, A.J., J.M. Omernik, D.R. Butler, J.G. Ford, J.E. Henley, B.W. Hoagland, D.S. Arndt, and B.C. Moran. 2005. Ecoregions of Oklahoma (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,250,000).

APPENDIX A

USFWS and ONHI Records



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Oklahoma Ecological Services Field Office
9014 East 21st Street
Tulsa, OK 74129-1428
Phone: (918) 581-7458 Fax: (918) 581-7467
<http://www.fws.gov/southwest/es/Oklahoma/>

In Reply Refer To:
Consultation Code: 02EKOK00-2019-SLI-2523
Event Code: 02EKOK00-2019-E-06113
Project Name: Proposed Oklahoma Veterans Center

June 28, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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, that may occur within the boundary of your proposed project and/or may be affected by 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.*).

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 ECOS-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 ECOS-IPaC system by completing the same process used to receive the enclosed list.

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 sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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 projects 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.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. 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>

Non-federal entities conducting activities that may result in take of listed species should consider seeking coverage under section 10 of the ESA, either through development of a Habitat Conservation Plan (HCP) or, by becoming a signatory to the General Conservation Plan (GCP) currently under development for the American burying beetle. Each of these mechanisms provides the means for obtaining a permit and coverage for incidental take of listed species during otherwise lawful activities.

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 (http://www.fws.gov/windenergy/eagle_guidance.html). 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: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

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 through our Project Review step-wise process <http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm>.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

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:

Oklahoma Ecological Services Field Office

9014 East 21st Street

Tulsa, OK 74129-1428

(918) 581-7458

Project Summary

Consultation Code: 02EKOK00-2019-SLI-2523

Event Code: 02EKOK00-2019-E-06113

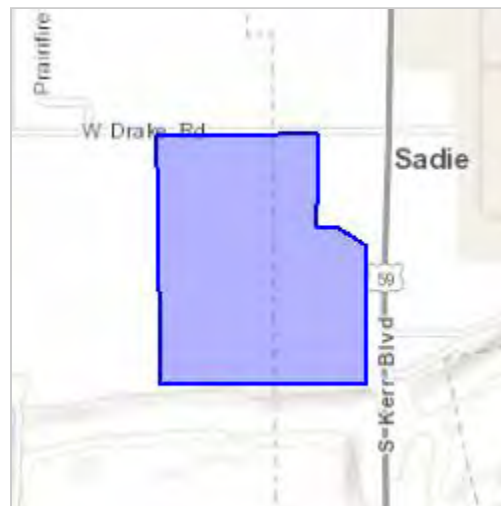
Project Name: Proposed Oklahoma Veterans Center

Project Type: DEVELOPMENT

Project Description: The proposed project would involve the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veterans Center will incorporate eleven residential wings arranged along a central “main street” promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/35.43207215900013N94.80858111748617W>



Counties: Sequoyah, OK

Endangered Species Act Species

There is a total of 8 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, 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.

Mammals

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened
Ozark Big-eared Bat <i>Corynorhinus (=Plecotus) townsendii ingens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7245	Endangered

Birds

NAME	STATUS
Least Tern <i>Sterna antillarum</i> Population: interior pop. No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8505	Endangered
Piping Plover <i>Charadrius melodus</i> 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. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Insects

NAME	STATUS
American Burying Beetle <i>Nicrophorus americanus</i> Population: Wherever found, except where listed as an experimental population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/66	Endangered

Critical habitats

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

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 1 to Aug 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

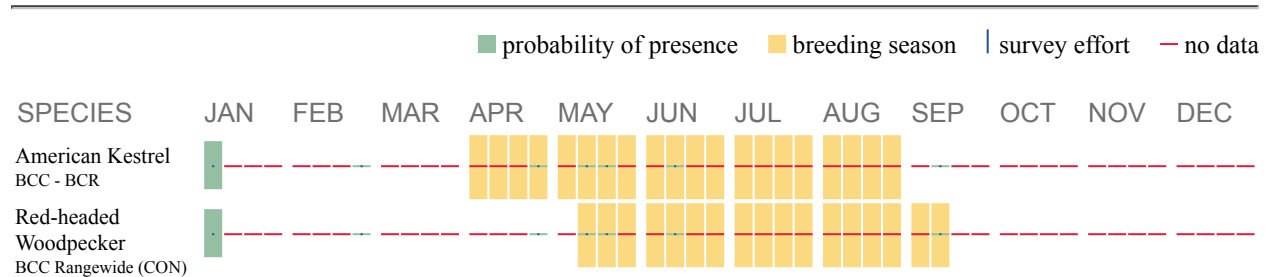
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as

occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC

species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location?”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- [R4SBC](#)
-

OBS Ref. 2019-332-BUS-EAG

Dear Mr. Bednar,

Jun. 25, 2019

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 13-T11N-R23E, Sequoyah County

We found 2 occurrence(s) of relevant species within the vicinity of the project location as described.

Species Name	Common Name	Federal Status
<i>Nicrophorus americanus</i>	American burying beetle	Endangered
County	TRS	Count
Sequoyah	Sec. 30-T11N-R24E	1
Sequoyah	Sec. 31-T11N-R24E	1

Additionally, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI, guide to ranking codes for endangered and threatened species:

http://vmpincel.ou.edu/heritage/ranking_guide.html

Information regarding the Oklahoma Natural Areas Registry:

http://www.oknaturalheritage.ou.edu/registry_faq.htm

Todd Fagin
Oklahoma Natural Heritage Inventory
(405) 325-4700
tfagin@ou.edu

APPENDIX B

REPRESENTATIVE HABITAT PHOTOS



HASS-1



HASS-3



HASS-2



HASS-3



HASS-2



HASS-4



HASS-4

APPENDIX E

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Oklahoma Veterans Center
Sallisaw, Sequoyah County, OK



Prepared for:

Oklahoma Department of Veterans
Affairs

Prepared by:



*P.O. Box 335
Vinita, Oklahoma 74301*

*P.O. Box 5446
Fort Smith, Arkansas 72913*

July 2019

Handwritten signature of Steven R. Votaw in cursive script.

**Steven R. Votaw
President**



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PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

Oklahoma Veterans Center Sallisaw, Sequoyah County, Oklahoma

EXECUTIVE SUMMARY

- On June 25, 2019, Environmental Data Resources provided the current environmental regulatory database information in accordance with ASTM 1527-13 search distances.
- On July 8, 2019, a field survey was conducted by David Bednar of Eagle Environmental Consulting (EEC).
- This assessment revealed no evidence of a recognized environmental condition at this property.
- The results of environmental records search identified within the federal/state databases are provided below:

MAP FINDINGS SUMMARY								
Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LAST	0.500		0	0	0	NR	NR	0
LUST	0.500		0	0	1	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		1	1	NR	NR	NR	2
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<i>State and tribal institutional control / engineering control registries</i>								
INST CONTROL	0.500		0	0	0	NR	NR	0
<i>State and tribal voluntary cleanup sites</i>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<i>State and tribal Brownfields sites</i>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
<i>Local Brownfield lists</i>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Landfill / Solid Waste Disposal Sites</i>								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Hazardous waste / Contaminated Sites</i>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<i>Local Lists of Registered Storage Tanks</i>								
HIST UST	0.250		0	1	NR	NR	NR	1
<i>Local Land Records</i>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
<i>Records of Emergency Release Reports</i>								
HMIRS	TP		NR	NR	NR	NR	NR	0
OK COMPLAINT	TP		NR	NR	NR	NR	NR	0
<i>Other Ascertainable Records</i>								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	1	0	0	NR	1
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

MAP FINDINGS SUMMARY

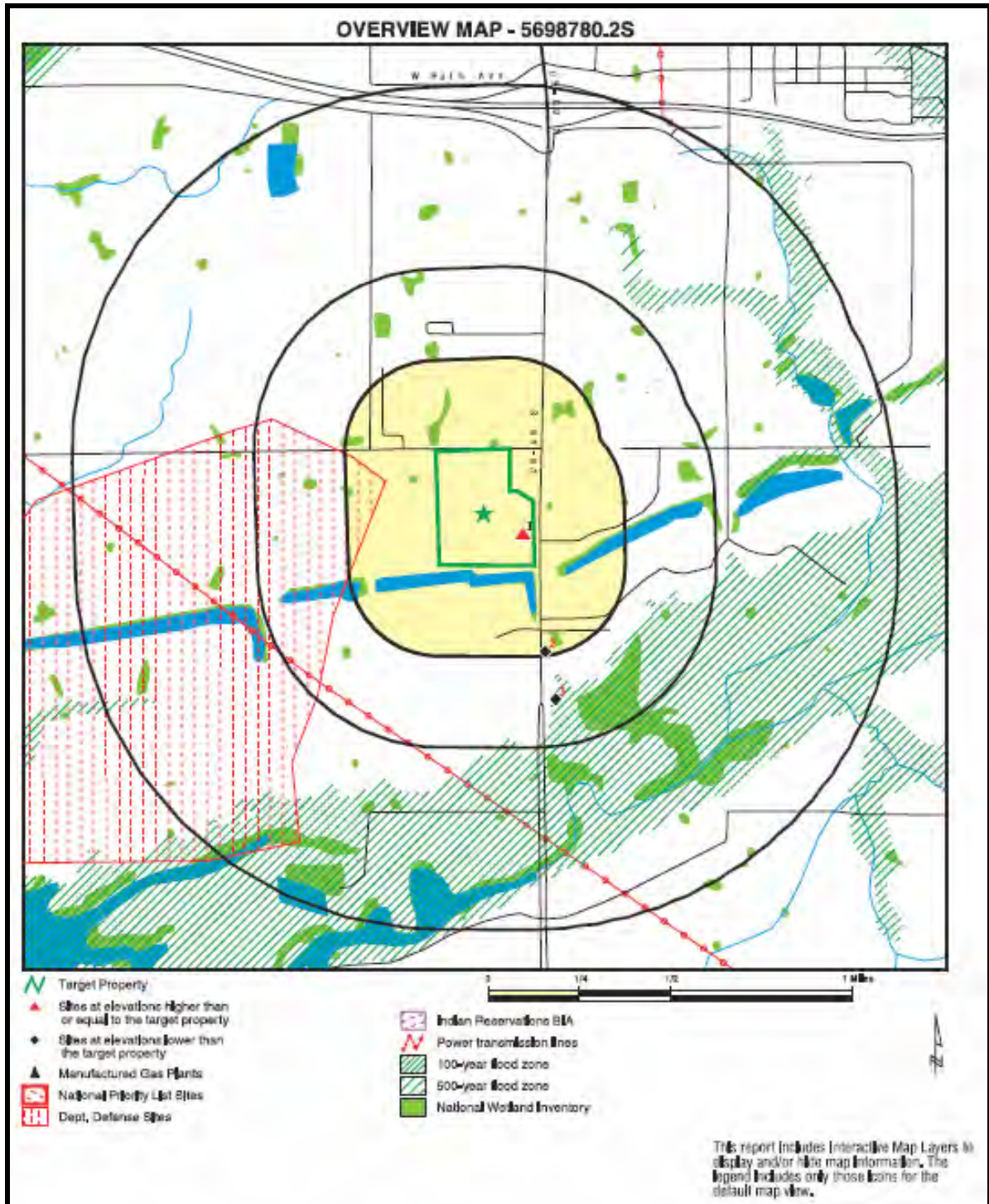
Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
TIER 2	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
<u>EDR HIGH RISK HISTORICAL RECORDS</u>								
<i>EDR Exclusive Records</i>								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
<u>EDR RECOVERED GOVERNMENT ARCHIVES</u>								
<i>Exclusive Recovered Govt. Archives</i>								
RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

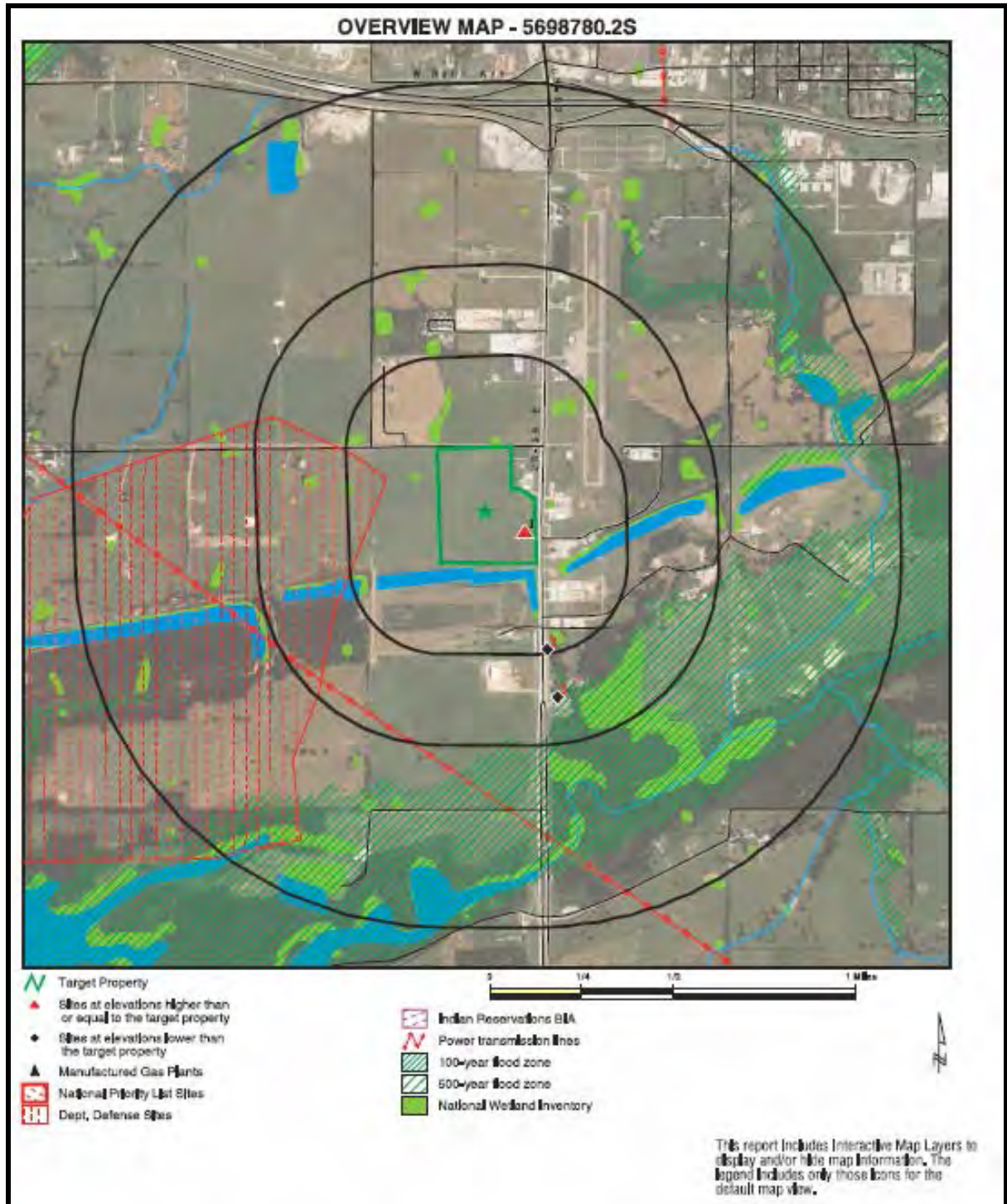
MAP FINDINGS SUMMARY								
Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals -		0	1	3	1	0	0	5

NOTES:
 TP - Target Property
 NR - Not Requested at this Search Distance
 Sites may be listed in more than one database

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

1.0 INTRODUCTION

1.1 Purpose

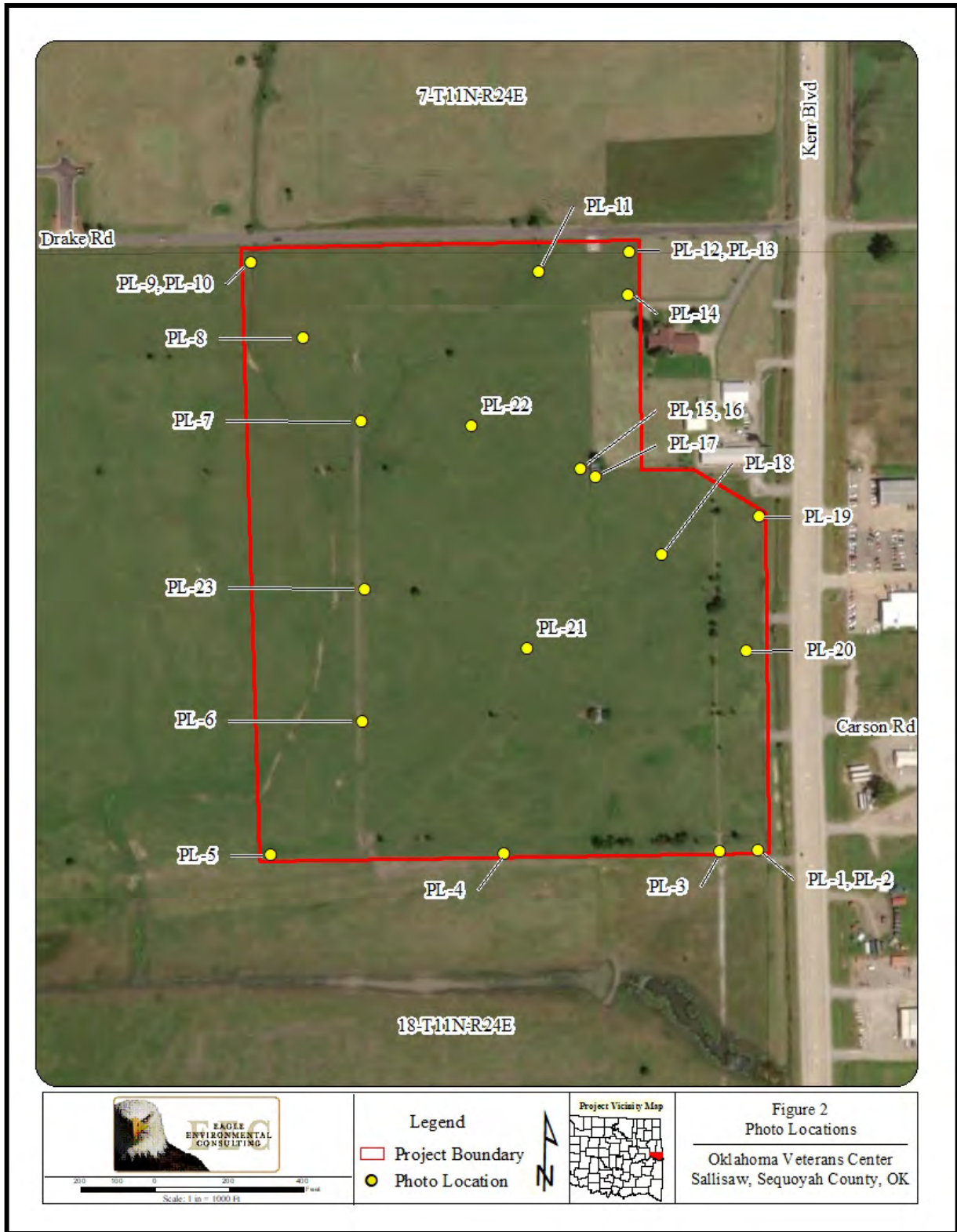
The purpose of the Phase I Environmental Site Assessment (ESA) was to identify any recognized environmental conditions present on or adjacent to the subject property which may pose a potential liability. The term recognized environmental conditions (REC) means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to any release to the environment under conditions indicative of a release to the environment or under conditions that pose a material threat of a future release to the environment. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not considered recognized environmental conditions. The intent of the assessment was to satisfy one of the requirements necessary to qualify for the innocent landowner defense against liability under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) constituting all appropriate inquiry.

1.2 Terms and Conditions

Eagle Environmental Consulting, (EEC) performed a Phase I ESA on approximately 40 acres of undeveloped land located on the west side of State Highway 59 in Sallisaw, Sequoyah County, Oklahoma. The property is located in Section 18, Township 11 North, Range 24 East. **Figure 1** shows the general property location. **Figure 2** shows the target property, perimeter boundary and photo locations.



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT



PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

The ASTM Standard Practice E 1527-13, entitled, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, was used as guidance to conduct the Phase I ESA for the property and adjacent areas to identify areas of environmental concern. The use of ASTM E 1527-13 is in compliance with the Environmental Protection Agency (EPA) All Appropriate Inquiries Final Rule. The Phase I ESA was conducted and a report prepared for the sole use by the Client. EEC will keep confidential and not disclose to any person or entity, without prior written consent of the Client, any data or information generated in conjunction with the performance of the Phase I ESA. Provisions of confidentiality shall not apply to data or information obtained from the public domain or acquired from third parties not under obligation to the Client for confidentiality.

1.3 Limitations and Exceptions

This Phase I ESA is not a comprehensive property characterization and should not be construed as such. The findings and opinions conveyed via this Phase I ESA are based on information obtained from a variety of sources identified herein, which EEC believes to be reliable. However, EEC has no control over regulatory databases, agency information releases, testing and analysis services, interviewed personnel response, or third party generated information, and therefore, disclaims any responsibility for errors and omissions arising therefrom. The conclusions set forth in this report are limited by the data presented in this report and the limited investigation performed by EEC under the Phase I ESA. Since the development of this Phase I ESA did not involve the sampling of soil, rock, groundwater, surface water, or air; it is, therefore, not possible to confirm the presence or absence of toxic or hazardous substances, waste or materials in the environments associated with the property. The photographs and maps included within this Phase I ESA are presented for the purpose of assisting the reader in visualizing the property. The findings of this report are valid as of the date of the investigation. However, changes in the conditions of the property can occur with the passage of time, whether due to natural processes or anthropogenic activities on this or adjacent properties. In addition, changes in applicable appropriate standards may occur resulting from legislation, broadening of knowledge, or other reasons.

EEC assumes no responsibility to monitor any changes at the property or to advise if there are any changes as to what constitute hazardous materials substances or petroleum products. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside of EEC control. EEC does not claim responsibility for any incorrect information that may have been supplied by agencies, organizations or individuals that may be included in the findings of this report. EEC cannot be held liable due to remote and rugged property setting, complete visibility of all portions of said property could not be observed and any REC's that may not be visible.

This Phase I ESA does not address the other environmental concerns that do not fall within the ASTM's definition of recognized environmental conditions. Examples of other environmental concerns that do not fall under ASTM recognized environmental conditions include:

- Asbestos-containing materials (ACM) in structures on the property.
- Lead-based paint on structures on the property.
- Regulatory restrictions related to wetlands, aquifer recharge zones, endangered species habitats, or other environmentally sensitive settings.
- Health and Safety.
- Cultural and historic resources.

1.4 Assessment Methods

The Phase I ESA consisted of the following components:

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- **Records Review** - Review of records that are a matter of public record regarding facilities associated with the Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the EPA Emergency Response Notification System (ERNS), Toxic Release Inventory System (TRIS), underground storage tanks (USTs), leaking underground storage tanks (LUSTs) and permitted solid waste disposal and processing facilities.
- **Site Reconnaissance** - Property visit to document the present surface conditions, physical characteristics and general appearance of the property and to examine all outdoor areas of the subject property looking for evidence of environmental impact, degradation and potential environmental hazards.
- **Interviews** – Interviews with present owners, past owners, and occupants of a property, in addition to state and/or local government officials is required by this standard practice to obtain information indicating recognized environmental conditions in connection with the property.
- **Assessment Report** – The preparation of a Phase I ESA report that documented observations and information collected about the property and to present findings and recommendations. This study did not include a subsurface investigation.

2.0 GENERAL SITE SETTING

2.1 Current Use of the Property

The property under assessment includes approximately 40 acres of land used for pasture. Representative photographs of the property are provided in **Appendix A**.

2.2 Past Use of the Property

2.2.1 Historical Aerial Photography

Aerial photography was reviewed and provided by Environmental Data Resources (EDR) for dates provided below. Historical photographs are provided in **Appendix B**.

Photo Year	Land Use	Comments/Remarks/Changes
1963	Pastureland	The property is not developed and appears to consist of pastureland. One stream channel meanders through the northwest portion of the property. No structures were observed.
1971	Pastureland	The property appears to consist of pastureland. No other obvious changes in land use have occurred in the last 8 years.
1984	Pastureland	The property appears to consist of pastureland. Two structures were observed along the eastern property line. No other obvious changes in land use have occurred in the last 13 years.
1995	Pastureland	The property appears to consist of pastureland. Five white structures are visible on the eastern portion of the property. No other obvious changes in land use have occurred in the last 11 years.
2006	Pastureland	The property appears to consist of pastureland. Two white structures are visible in the eastern portion. No other obvious changes in land use have occurred in the last 11 years.
2010	Pastureland	The property appears to consist of pastureland. No other obvious changes in land use have occurred in the last 4 years.
2013	Pastureland	The property appears to consist of pastureland. No other obvious changes in land use have occurred in the last 3 years.
2017	Pastureland	No obvious changes in land use have occurred in the last 4 years.

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2.2.2 City Directories

A city directory search was not conducted for the property by EDR due to limitation of data usage.

2.2.3 Sanborn Maps

The Sanborn library collection was searched for fire insurance map coverage. The property was not found within the holdings of the Sanborn Library collection. Sanborn map documentation is provided in **Appendix C**.

2.3 Current Uses of the Adjoining Property

Land use to the south and west is used for pastureland. Land use to the north is mixed and consists of pastureland and commercial use. Land use to the immediate east consists of the right-of-way of Highway 59 and business development on the east side of the highway.

2.4 Past Uses of the Adjoining Property and Surrounding Areas

Aerial photography was obtained from EDR and provided in **Appendix B**.

Photo Year	Land Use	Comments/Remarks/Changes
1963, 1971, 1984	Pasture/Residential	Surrounding property to the west, north and east predominantly consist of pastureland. Strip mine tailings are visible to the south
1995	Pasture	Surrounding properties to the west, and north consist of pastureland. Land to the south consists of strip mines and reclamation is visible. Business development is observed to the east along Highway 59.
2006, 2013, and 2017	Pasture	Changes in adjacent land use include more business development to the east along Highway 59 and reclamation to the south of past coal strip mines

2.5 General Description of Structures

No residential or commercial structures were observed at the target property. One wind shed was observed at the property that is used to protect livestock from the wind and rain.

2.6 Roads

No paved roadways were observed at the target property.

2.7 Potable Water Supply

- No potable water supply is connected to the property.
- Potable water supply provided by rural water district.
- Potable water supply provided by private water well.

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2.8 Sewage Disposal System

No sewage disposal is connected to a regulated municipal sanitary waste collection system.

Sewage disposal is connected to a septic system. See Section 5.3.7.

No sewage disposal system is associated with the evaluated property.

3.0 USER PROVIDED INFORMATION

3.1 Title Records

At the time the Phase 1 ESA began, the City of Sallisaw was the owner of the property, therefore, the most knowledgeable about the property. No title records were obtained from the City of Sallisaw.

3.2 Environmental Liens or Activity and Use Limitations

The City of Sallisaw was not aware of any environmental liens or use limitations of the property. Based on the search of state and federal environmental database records conducted by EDR, no liens or use limitations were identified associated with the property (**See Appendix E**).

3.3 Specialized Knowledge

The City of Sallisaw advised that they have no specialized knowledge of the property.

3.4 Commonly Known or Reasonably Ascertainable Information

The user provided no other known or reasonably ascertainable additional information about the property.

3.5 User Provided Response to Questionnaire

The All Appropriate Inquiries user questionnaire was sent to and completed by the City of Sallisaw representative and received by the environmental professional on July 5, 2019. The completed questionnaire is provided in **Appendix D**.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

On June 25, 2019, Environmental Data Resources, Inc. (EDR) conducted a search of state and federal environmental database records. The searches met the specific requirements of ASTM Standard Practice for Environmental Site Assessments. The target property was not listed in any of the databases searched by EDR. The information obtained from the EDR database search is found in **Appendix E**.

4.1.1 Federal CERCLIS/ SEMS List

The Superfund Enterprise Management System (SEMS) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The Superfund program was created to protect citizens from the dangers posed by abandoned or uncontrolled hazardous waste sites. In 1980, Congress established the Superfund program by passing the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Information System (CERCLIS) which provides the Federal government the authority to respond to hazardous substance emergencies, and to develop long-term solutions for the nation's most serious hazardous waste problems. The CERCLIS database contains information on hazardous

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waste sites, potentially hazardous waste sites and remedial activities conducted across the nation.

No SEMS sites were identified within ½ mile of the property.

SEMS site was identified within ½ mile of the property.

4.1.2 National Priorities List (NPL)

The National Priorities List identifies “Superfund” sites that have had documented contamination. The CERCLIS database includes sites that are on the NPL or being considered for the NPL.

No NPL sites were identified within ½ mile of the property.

NPL sites were identified within ½ mile of the property.

4.1.3 Delisted NPL Sites

The Delisted National Priorities List identifies “Superfund” sites with documented contamination that have been satisfactorily resolved, cleaned, removed, and/or closed according to specified state/federal regulatory requirements.

No Delisted NPL sites were identified within ½ mile of the property.

Delisted NPL sites were identified within ½ mile of the property.

4.1.4 CERCLIS No Further Remedial Action Planned Site

This section include potential hazardous waste sites that have been assessed and require no further remedial action planned (NFRAP) have been removed from CERCLIS.

No CERCLIS NFRAP sites were identified within ½ mile of the property.

CERCLIS NFRAP sites were identified within ½ mile of the property.

4.1.5 Resource Conservation and Recovery Act (RCRA) CORRACTS Facilities

Facilities that store, treat, or dispose of hazardous waste are responsible for investigating and cleaning their facilities. The EPA refers to this clean-up requirement as corrective action. The USEPA Corrective Action Report (CORRACTS) identifies hazardous waste handlers with RCRA corrective action activity.

No RCRA CORRACTS Facilities were identified within ½ mile of the property.

RCRA CORRACTS Facilities were identified within ½ mile of the property.

4.1.6 RCRA Non-CORRACTS Treatment, Storage, and Disposal Facilities

This database includes selective information on sites which transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act. TSD’s are facilities that treat, store, or dispose of hazardous waste.

No RCRA Non-CORRACTS Facilities were identified within ½ mile of the property.

RCRA Non-CORRACTS Facilities were identified within ½ mile of the property.

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4.1.7 RCRA Generators List

RCRAInfo is the Environmental Protection Agency's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

- No RCRA Generators were identified within ½ mile of the property.
- RCRA Generators were identified within ½ mile of the property.

4.1.8 Federal, State, and Tribal Institutional Controls/Engineering Control Registries

Institutional controls are legal or administrative measures that limit human exposure to hazardous waste or hazardous constituents. Examples include use control areas, easements, zoning restrictions, and deed notices. They are intended to bolster the integrity of remedies and minimize the potential exposure to contamination by limiting land or resource use. Institutional controls are typically used any time contaminants are left in place at cleanup levels that are based on restricted site uses. In addition, institutional controls may be required during implementation of a remedy that will eventually achieve unrestricted site use cleanup levels but will take a long time, for example, for sites undergoing long term groundwater remediation and sites where a monitored natural attenuation remedy is approved. Institutional controls are generally used in conjunction with, rather than in lieu of, engineering measures, such as waste treatment or containment.

- No sites with institutional or engineering controls were identified on the property.
- Sites with institutional or engineering controls were identified on the property.

4.1.9 Emergency Response Notification System (ERNS) List

The U.S. EPA Emergency Response Notification System (ERNS) is a computer database containing information on release notifications of oil and hazardous substances that have occurred throughout the United States and have been reported to the National Response Center (NRC). The NRC is the sole federal point of contact for reporting oil and chemical spills. Releases are recorded when they are initially reported to the federal government by any party.

- No known reported releases of oil or hazardous substances were identified for this property.
- Reported releases of oil or hazardous substances were identified for this property.

4.1.10 State and Tribal Equivalent NPL and CERCLIS

- No state or Tribal NPL equivalent sites were identified within 1 mile of the property and no CERCLIS equivalent sites were identified within ½ mile of the property.
- State or Tribal NPL equivalent sites were identified within 1 mile of the property.

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4.1.11 Tribal Landfills or Solid Waste Disposal Sites

- No Tribal permitted solid waste disposal or processing facilities were located on or within a ½ mile radius of the property.
- Tribal permitted solid waste disposal or processing facilities were located on or within a ½ mile radius of the property.

4.1.12 State Landfill or Solid Waste Disposal Sites

- No State landfill or solid waste disposal or processing facilities were located on or within a ½ mile radius of the property.
- State landfill or solid waste disposal or processing facilities were located on or within a ½ mile radius of the property.

4.1.13 State and Tribal Registered Underground Storage Tanks (UST)

One UST location was identified by the database search. The Petroleum Storage Tank Division of the Oklahoma Corporation Commission (OCC) enforces state and federal regulations and administers certain assistance programs applicable to the storage, quality, and delivery of refined petroleum products (i.e., gasoline and other fuels) and records information on the release of petroleum products. The facility identification number obtained from the database search (6810081) was matched to records through use of the Oklahoma Corporation Commission's Petroleum Storage Tank Portal. The Tank Portal was used to obtain information about the location of any underground (UST), aboveground (AST) or leaking underground storage tanks (LUST). Based on the Tank Portal, a facility named South Big D, contained four UST that included two 11,000-gallon gasoline tanks, one 11,000-gallon diesel tank, and one 4,000-gallon gasoline tank. The owner of the tanks was identified as Big D Enterprises, Inc., 21 N. 2nd Street, Fort Smith, Arkansas 72901. Officials at the City of Sallisaw were asked about at the facility. They were not aware of any UST location at the target property. A Google search was performed and the owner of Big D Enterprises was contacted. An email response from the owner indicated that his late father owned a station called Big D's but their tanks were above ground. He stated his father had a station named Sallisaw South but was located on the opposite side of State Highway 59. He does not recall the target property being associated with his family. No petroleum storage tanks were identified or verified as being present on the target property. Documentation is provided in Appendix E.

Date of Regulatory Agency Inquiry:	7/12/2019	Source:	PST Portal	Agency:	OCC
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Owner Name	Tank Number	Capacity (gal)	Contents	Installed	Closed	Identified Issues	Current Status
Big D Enterprise, Inc.	Unknown	11,000	Gasoline	Unknown	Unknown	Unknown	Unknown
Big D Enterprise, Inc.	Unknown	11,000	Gasoline	Unknown	Unknown	Unknown	Unknown
Big D Enterprise, Inc.	Unknown	11,000	Diesel	Unknown	Unknown	Unknown	Unknown
Big D Enterprise, Inc.	Unknown	4,000	Gasoline	Unknown	Unknown	Unknown	Unknown

Monitoring Wells Observed	Location	Identified Issues	Current Status
None			

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Monitoring Wells Observed	Location	Identified Issues	Current Status

4.1.14 State and Tribal Leaking Underground Storage Tanks (LUST)

The Oklahoma Corporation Commission's website was searched to identify the location of any leaking underground storage tanks.

No LUST's were located on or within the subject property.

LUST's were located on or within the subject property.

The following table provides the LUST information obtained through database records evaluation (if present):

Owner	Number	Capacity (gal)	Contents	Installed	Removed	Identified Issues	Current Status

Date of Regulatory Agency Inquiry:		Source:		Agency:	
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4.1.15 State and Tribal Voluntary Cleanup (VCP) Sites

The voluntary cleanup program provides an opportunity for private parties and government entities to clean up properties that may be contaminated. Sites within the program can range in size and contain single or multiple sources of contamination.

No VCP sites were identified within a ½ mile of the subject property.

VCP sites were identified within a ½ mile of the subject property.

4.1.16 State and Tribal Brownfields Sites

Brownfields are defined by Oklahoma law as abandoned, idle or underused industrial or commercial facilities or other real property at which expansion or redevelopment of the real property is complicated by environmental contamination caused by regulated substances. Documentation provided by EDR is located in **Appendix E**.

No Brownfields sites were identified within a ½ mile of the subject property.

Brownfields sites were identified within a ½ mile of the subject property.

4.2 Physical Setting Sources

4.2.1 Topographic/Hydrologic/Geologic/Hydrogeologic Conditions

The property is located on the Sallisaw 7.5-minute USGS topographic map. Elevation at the property approximately 520 feet above mean sea level. Surface water runoff generally flows to the south. The property is underlain by Quaternary terrace deposits composed of clay, silt, sand and gravel. No major aquifers were identified beneath the property.

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5.0 SITE RECONNAISSANCE

5.1 Property Observations

On July 8, 2019, David Bednar of EEC performed the site reconnaissance survey at the target property. No structures were observed at the property. No residential or commercial structure were identified. No out buildings were observed. One shed was observed on the eastern portion of the property that was used as a wind shield for cattle. Near the wind shed, a solar powered electric powered fence charge was observed and an underground barrel used to heat water during the winter for livestock. The property is used as pastureland and there were no improved roadways. The majority of the property is covered with herbaceous vegetation. The vegetation across the property was homogeneous with no evidence of distressed vegetation. No petroleum storage tanks were observed. No REC's were identified.

5.1.1 Hazardous Substances and Petroleum Products in Connection with Identified Uses

- No petroleum products or hazardous substances were observed at the subject property.
- Petroleum products or hazardous substances were observed at the subject property. See Section 5.1.

5.1.2 Other Storage Tanks

The following information is provided relative to the storage tank identification within the subject property:

Tank Type	Number	Capacity (gal)	Contents	Installed	Removed	Identified Issues	Current Status
None							

Regulatory Agency Interview Conversation Record:

Not required. No records identified in database searches.

Other Tanks	Tank Type	Location	Contents	Current Status
NA				

Tank Purpose and Use: None

NA

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5.1.3 Odors

- No odors or vapors were identified at the subject property.
- Odors or vapors were identified at the subject property adjacent to the used oil drums.

5.1.4 Pools of Liquid

- No pools of liquid or hazardous or petroleum substances were observed at the subject property.
- Pools of liquid or hazardous or petroleum substances were observed at the subject property.

5.1.5 Drums

- No drums were identified within the subject property.
- Drums were identified within the subject property. See Section 5.1.

5.1.6 Hazardous Substance and Petroleum Products Containers

- No hazardous substances or containers were observed at the subject property.
- Hazardous substances or containers were observed at the subject property. Used motor oil was identified at the property.

5.1.7 Unidentified Substance Containers

- No unidentified substance containers were observed at the subject property.
- Unidentified substance containers were observed at the subject property.

5.1.8 PCB's WAITING ON RESPONSE

Polychlorinated Biphenyls (PCBs) were used as a dielectric fluid in transformers, capacitors, and ballasts prior to the Toxic Substance Control Act of 1976. The EPA banned further manufacture of equipment containing PCB's in 1979.

- No transformers, capacitors, or ballasts were observed at the subject property.
- Transformers were observed at the property.

5.2 Interior Observations

5.2.1 Heating/Cooling

- No structures were observed at the property.
- The energy source used to heat or cool buildings at the property is electric.

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The energy source used to heat or cool buildings at the property is provided by generator.

5.2.2 Stains or Corrosion

No obvious areas of staining and/or corrosion were observed at the subject property.

Staining was observed at the property.

5.2.3 Drains and Sumps

No drains, sumps, or storm drains were observed at the subject property.

Drains, sumps, or storm drains were observed at the subject property.

5.3 Exterior Observations

5.3.1 Pits, Ponds, or Lagoons

No pits or lagoons were observed at the subject property.

Pits or lagoons were observed at the subject property.

5.3.2 Stained Soil or Pavement

No stained soils or pavement was observed at the subject property.

Stained soils or pavement was observed at the subject property adjacent to the used oil drums.

5.3.3 Stressed Vegetation

No stressed vegetation was observed at the subject property.

Stressed vegetation was observed at the subject property. Stressed vegetation was identified near the petroleum residue observed at the referenced concrete pad area.

5.3.4 Solid Waste

No trash and/or refuse receptacles were observed at the subject property. See Section 5.1.

Solid waste was observed at the property.

5.3.5 Wastewater

No wastewater was observed at the subject property.

Wastewater was observed at the property.

5.3.6 Wells

The Oklahoma Water Resources Board groundwater wells standards and protection interactive mapping was accessed on July, 12, 2019. No water well locations were identified at the property on interactive mapping. The

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Oklahoma Corporation Commission Website Data Miner was used to search for oil and gas locations at the property. No wells were observed that related to the property. No oil and gas wells were observed at the property. The EDR radius report did not report any water wells or oil and gas wells at the property.

- Water wells were identified at the property associated with the UST detection system.
- Water wells were identified at the property.
- No water wells were identified at the property.
- No oil and gas wells were identified within the subject property.
- Oil and gas wells were identified within the subject property.

Comments/Remarks:

5.3.7 Septic System

Since 1992, the Oklahoma Department of Environmental Quality (ODEQ) has been the reservoir for records pertaining to septic systems that was transferred from the Department of Health.

- No septic systems were identified within the subject property
- A septic system was identified at the property.

Comments/Remarks:

None.

5.3.8 Asbestos Containing Material

Asbestos is a generic name given to a variety of fibrous minerals that have been used in commercial products. The term asbestos is a commercial designation for mineral products that possess high tensile strength, flexibility, resistance to chemical and thermal degradation, and high electrical resistance. Asbestos has been designated as a hazardous substance pursuant to CERCLA section 102 (42 U.S.C. 9602). Many building materials such as structural steel fireproofing, acoustic finishes, ceiling tile, suspended ceiling panels, textured and elastomeric paints, window putty, flexible duct connectors, rubbery pipe insulation tape, building wiring insulation, pipe, boiler, and vessel insulation, interior plaster, and duct insulation commonly contained asbestos until the late 1970s. Other types of ACM were commonly used until the middle to late 1980's such as drywall joint, compound, exterior stucco, sheet vinyl flooring, vinyl flooring products, flooring and other mastics (adhesives), roof tiles and coatings, asbestos-cement products and flues. Under the Toxic Substance Control Act (TSCA), EPA banned the use of asbestos in many products in 1993. However, several categories of building products were not subject to the ban. Thus, existing and even new buildings may lawfully contain Asbestos containing building material. The following types of building materials may still contain asbestos: vinyl-asbestos tile, roofing felt, roofing coatings, plastic roof cement, caulking putties, construction mastics, textured coatings,

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asbestos-cement items (shingles, corrugated sheets, flat sheets, pipes, flues), pipeline wrap and millboard. No buildings were identified at the property.

5.3.9 Lead Based Paint

Lead is a soft, bluish metallic element that has been used in a wide variety of products. According to EPA, paint manufacturers frequently used lead as a primary ingredient in many oil-based interior and exterior house paints through the 1940s and gradually decreased its use in the 1950s and 1960s as latex paints became more widespread. The federal Department of Housing and Urban Development (HUD) estimated that 75 % of the houses built in the United States before 1978 contain some lead-based paint. Lead from paint, chips, and dust can pose health hazards if not properly managed. The Consumer Product Safety Commission (CPSC) prohibited use of lead in paint for residential use in 1978 in concentrations greater than 0.06 percent lead by weight. It should be noted that the use of LBP in commercial and industrial buildings and has not been prohibited. No buildings were identified at the property.

6.0 INTERVIEWS

6.1. Current Owner

The current owner of the property is the Oklahoma Department of Veterans Affairs. The City of Sallisaw conveyed the property to the state in July 2019. Mr. George Bormann, Director of Economic Development, and Mr. Keith Miller, Director of Building Development, for the City of Sallisaw were interviewed by telephone to discuss the property. Based on their knowledge, the target property has been used as pastureland since the 1990's. Mr. Bormann and Mr. Randy Sizemore were asked about whether there was any facility that contained underground storage tanks or the name of South Big D. Neither men were aware of any facility using UST's at the target property. The target property, based on their knowledge, has always been used as farmland.

Current Owner	Approximate Period of Ownership	Approximate Time of Possession
	Years	Years
OK Department of Veterans Affairs	< 1 Year	< 1 Year
City of Sallisaw	< 1 Year	< 1 Year
Mr. Barry Spyres	18 Months	18 Months

6.2 Past Owner

Mr. Barry Spyres owned the property for 18 months before it was sold to the City of Sallisaw. Mr. Spyres said he used the property as pastureland for raising cattle. To his knowledge, the property was previously used as pastureland. Mr. Spyres was not aware of any other use of the property than for agricultural use.

Past Owner	Approximate Period of Ownership	Approximate Time of Possession
Mr. Barry Spyres	18 Months	

6.3 State and Local Agency Coordination

Oklahoma Department of Environmental Quality

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On June 28, 2019, an email request was sent to Central Records for information concerning any spills of hazardous waste, petroleum products, or septic systems at the property. A response was received on June 28, 2019 indicated no facilities were identified for the property due to the lack of a facility or site name, or a facility number or permit number. This request was sent to DEQ's ECLS Division to search their database for citizen complaints/spill reports and septic tank documentation. Documentation is provided in **Appendix E**.

7.0 DATA GAP AND DATA FAILURE

A data gap is defined as a lack or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information and that the data gap impacts the environmental professional to identify recognized environmental conditions. Data gaps were encountered in association with the assessment of the property. It was not possible to confirm land use within the property for each 5-year interval of time back to 1940. However, based on review of historical photography and topographic mapping the property appears to have been used for agricultural purposes from 1963 to the present.

Data failure is a failure to achieve the historical research objectives in Section 8 of the standard practice that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap. Data failure was not encountered during this assessment.

8.0 FINDINGS

Described below are the findings obtained by the Phase 1 ESA.

- Results from the June 25, 2019 database search indicated one UST location at the target property owned by Big D Enterprises.
- Representatives at the City of Sallisaw were asked about the land use at the target property and their knowledge of any underground storage tanks at the property. There was no knowledge or any UST's. The target property was used for agricultural purposes.
- One of the past owners was asked about land use of property. To his knowledge the property was always used for agricultural purposes.
- The owner of Big D Enterprises was contacted by phone and email to inquire about the facility that was identify by the database search. Based on database records and coordination with the previous landowners, including the purported Big D station owners family; the database records for the Big D location coordinates appear to have been entered incorrectly. The owner indicated that his late father owned a station called Big D's in Sallisaw, but their store was not situated on the target property and the tanks associated with the station were above ground. The OCC records indicated the tanks mapped in their database were underground. He stated his father had a station named Sallisaw South but was on the opposite side of Highway 59. He does not recall the target property being associated with his family.
- A site reconnaissance performed on July 8, 2019 and that no REC's were identified at the target property.

9.0 OPINION

Based on the review of historical aerial photography from 1963, 1971, 1984, 1995, 2006, 2010, 2013, and 2017, views of the target property show consistent land use and that past and current land use consisted as pastureland for the purpose of raising cattle. Officials at the City of Sallisaw and a past owner stress that the property has been used as pastureland based on their memories back to the 1980's. Aerial photography substantiates this. Although the coordinates of a database search place a UST location on the target property, based on interviews

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conducted with Sallisaw city officials, a past owner, and the owner of the company that owned the UST facility, it is the opinion of the environmental professional that the coordinates provided in database search are in error. The owner of Big D Enterprises does not recall that the target property was associated with his family's business. Furthermore, five documents were obtained from the OCC's Tank Portal with reference to the Big D Facility with the Facility ID of 6810081.

10.0 CONCLUSIONS

We have performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-13 of Phase I ESA on approximately 40 acres of land located in Section 18, Township 11 North, Range 24 East, in Sallisaw, Sequoyah County, Oklahoma.

The purpose of the Phase 1 ESA was to identify any recognized environmental conditions. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to release to the environment under conditions indicative of a release to the environment or under conditions that pose a material threat of a future release to the environment.

This assessment revealed no evidence of recognized environmental conditions at this property.

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11.0 REFERENCES

- ASTM International. 2013. Standard Practice for Environmental Site Assessments: Phase 1 Site Assessment Process, E 1527-13. 47 pages.
- Bormann, George. 2019. Telephone interview with George Boremann, City of Sallisaw, Director of Economic Development.
- Dooley, L. 2019. Telephone interview with Lucy Dooley of Big D Enterprises.
- Dooley, W. 2019. Email communication from Win Dooley of Big D Enterprises.
- Environmental Data Records, Inc. (EDR). 2019. The EDR Radius Map Report. 62 pages.
- Environmental Data Records, Inc. (EDR). 2019. EDR Aerial Photo Decade Package. 10 pages.
- Environmental Data Records, Inc. (EDR). 2019. Certified Sanborn Map Report. 2 pages.
- Google Earth Pro. Imagery 2018.
- Miller Keith, 2019. Telephone interview with Keith Miller, City of Sallisaw Director of Building Development.
- Oklahoma Water Resources Board Website. 2019. Interactive Maps and GIS, Groundwater Wells, Standards, and Protection. <http://www.owrb.ok.gov/maps/index.php>
- Oklahoma Water Resources Board Website. 2019. Interactive Maps and GIS, Groundwater in Oklahoma. Accessed at <http://www.owrb.ok.gov/maps/index.php>
- Oklahoma Corporation Commission Website. 2019. Well Browse Database. Accessed at <http://occpermit.com/wellbrowse/>
- Oklahoma Corporation Commission Website. 2019. Petroleum Storage Tank Portal Database. Accessed at <http://www.occeweb.com/ps/PSTPortal.htm>
- Spyres, B. 2019. Telephone interview with past land owner Barry Spyres.

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT

12.0 ENVIRONMENTAL PROFESSIONAL STATEMENT

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 CFR 312 and 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 Part 312. Qualifications of the environmental professionals are provided in **Appendix F**.



July 2019

Steven R. Votaw
President



July 2019

David Bednar, Jr.
Environmental Specialist

Appendix A

Representative Photos



Photo Location 1



Photo Location 4



Photo Location 2



Photo Location 5



Photo Location 3



Photo Location 6



Photo Location 7



Photo Location 10



Photo Location 8



Photo Location 11



Photo Location 9



Photo Location 12



Photo Location 13



Photo Location 16



Photo Location 14



Photo Location 17



Photo Location 15



Photo Location 18



Photo Location 19



Photo Location 22



Photo Location 20



Photo Location 23



Photo Location 21



Appendix B

Historical Photography



Oklahoma Veterans Center

S. Kerr Blvd

Sallisaw, OK 74955

Inquiry Number: 5698780.5

June 26, 2019

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

06/26/19

Site Name:

Oklahoma Veterans Center
S. Kerr Blvd
Sallisaw, OK 74955
EDR Inquiry # 5698780.5

Client Name:

Eagle Env. Consulting Inc.
438638 E. 220 Rd.
Vinita, OK 74301
Contact: David Bednar, Jr.



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2017	1"=500'	Flight Year: 2017	USDA/NAIP
2013	1"=500'	Flight Year: 2013	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1995	1"=500'	Acquisition Date: March 23, 1995	USGS/DOQQ
1984	1"=1000'	Flight Date: July 22, 1984	USGS
1971	1"=500'	Flight Date: February 15, 1971	USGS
1963	1"=500'	Flight Date: April 07, 1963	USGS

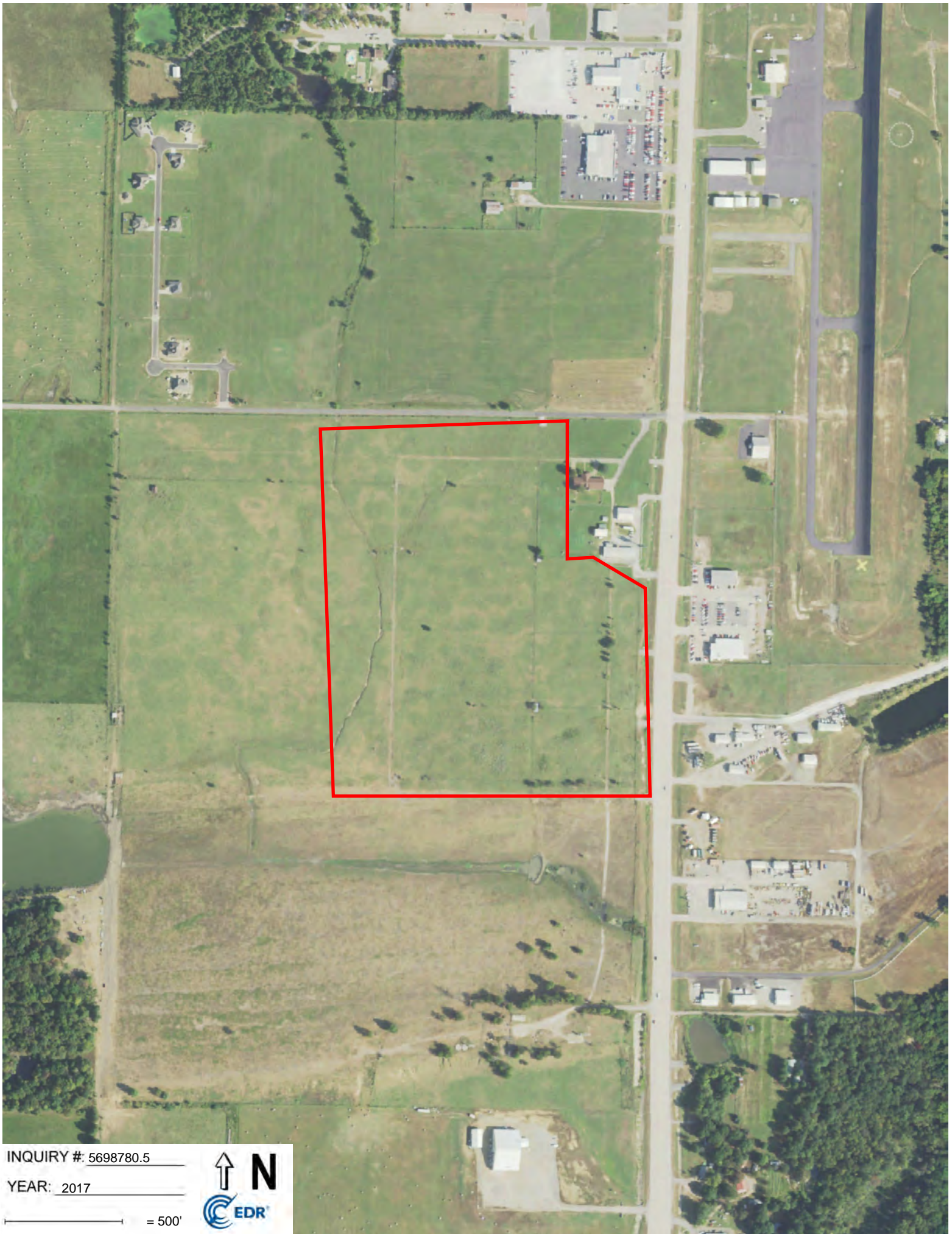
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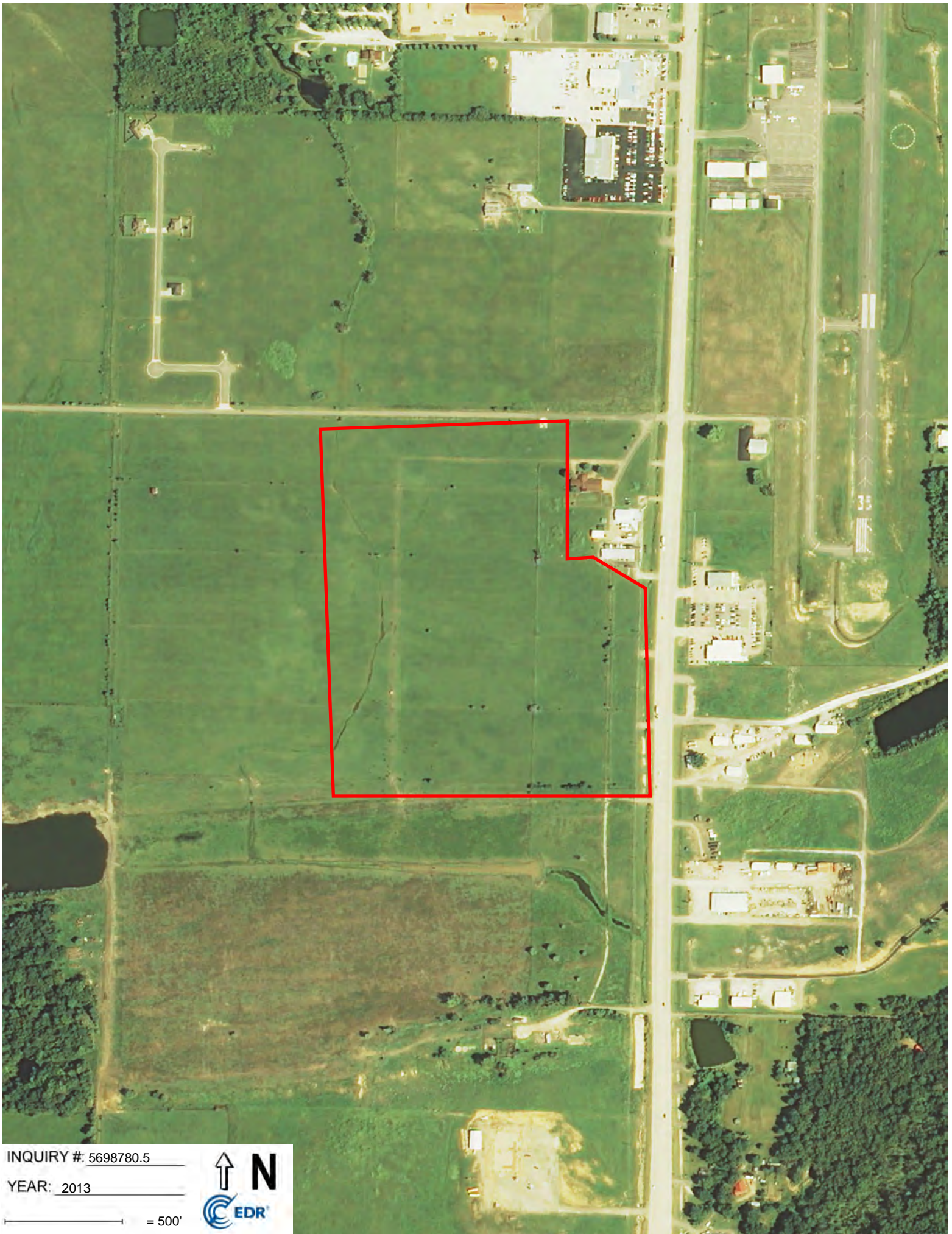


INQUIRY #: 5698780.5

YEAR: 2017

— = 500'



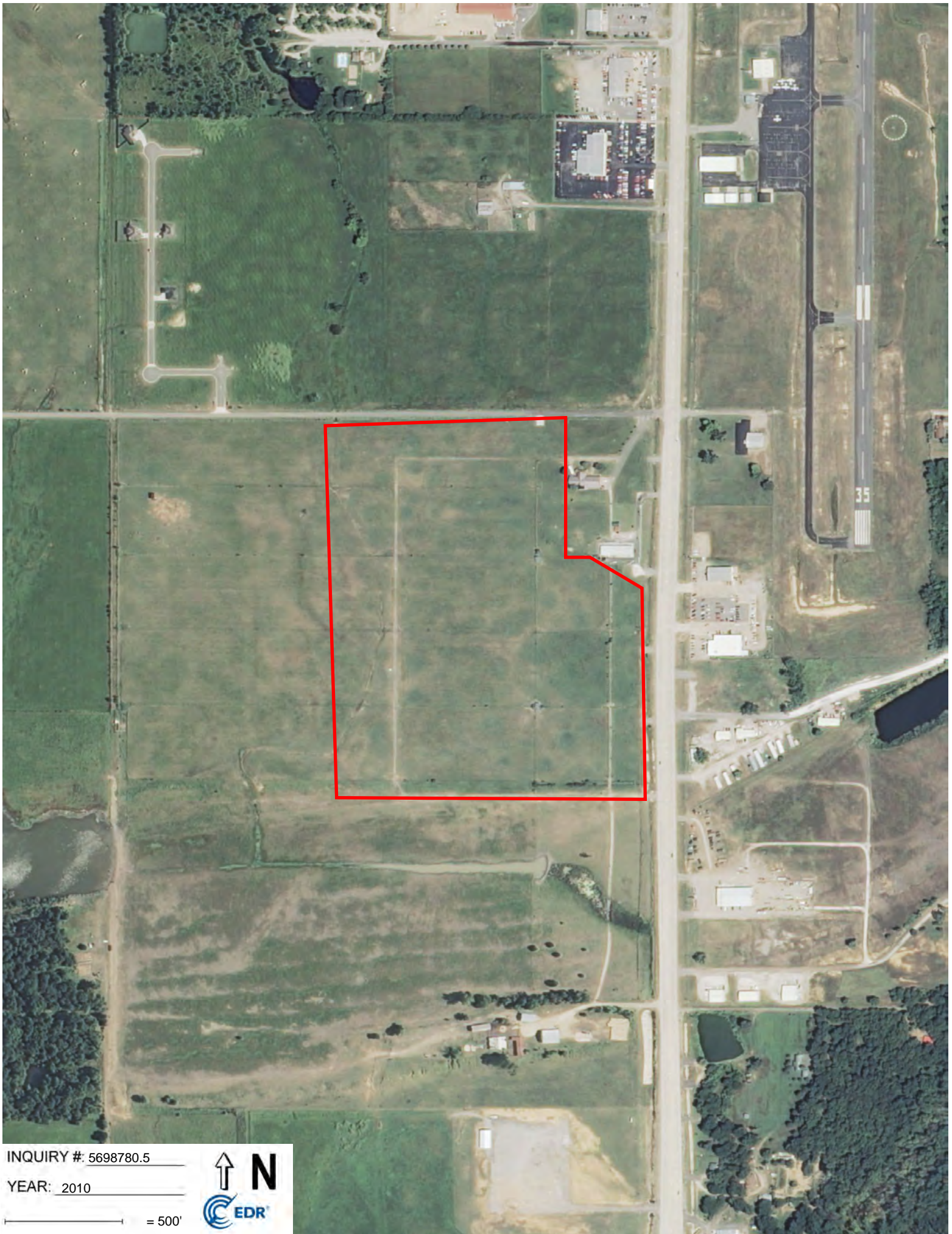


INQUIRY #: 5698780.5

YEAR: 2013

— = 500'





INQUIRY #: 5698780.5

YEAR: 2010

— = 500'





INQUIRY #: 5698780.5

YEAR: 2006

— = 500'



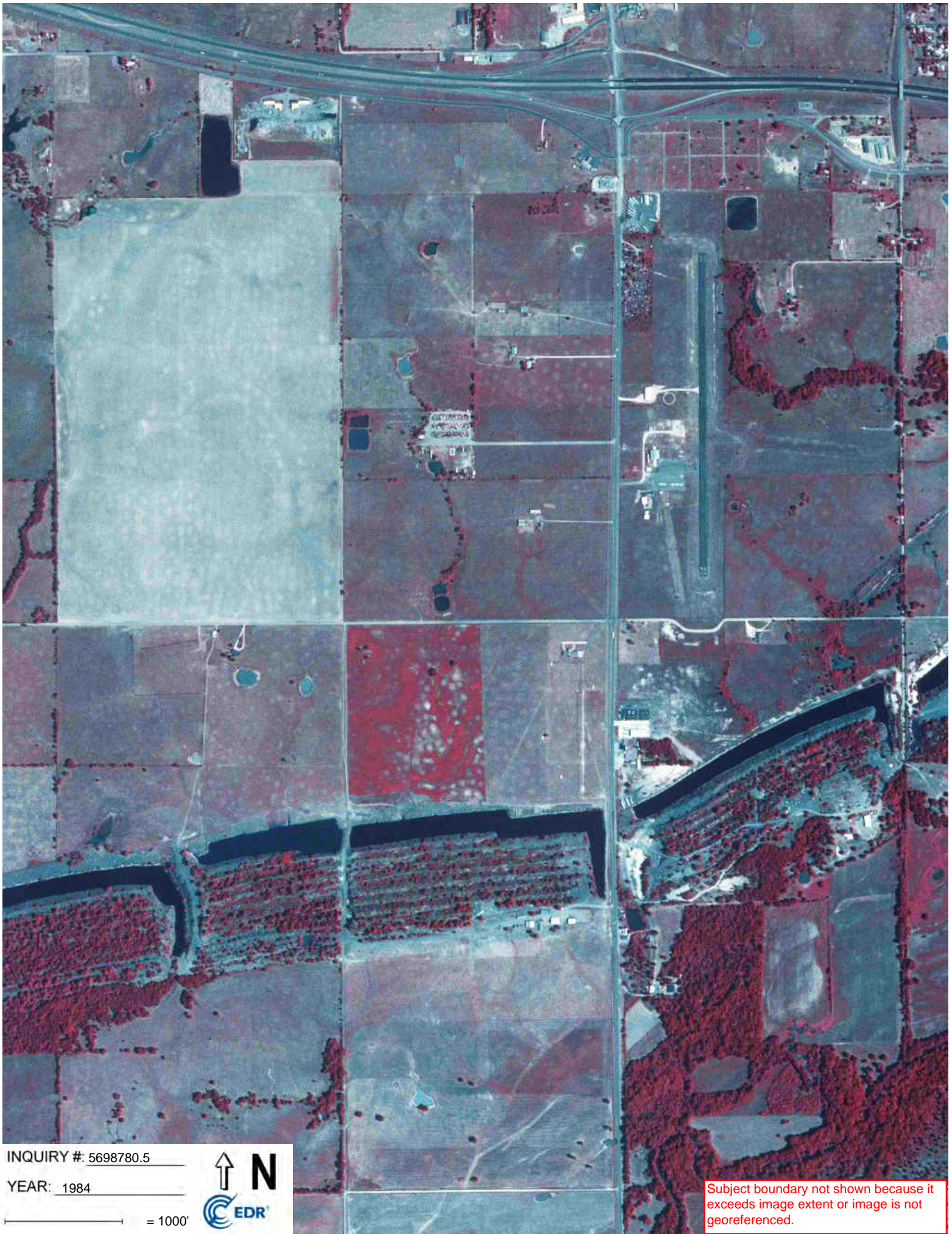


INQUIRY #: 5698780.5

YEAR: 1995

— = 500'





INQUIRY #: 5698780.5

YEAR: 1984

— = 1000'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.



INQUIRY #: 5698780.5

YEAR: 1971

— = 500'





INQUIRY #: 5698780.5

YEAR: 1963

— = 500'



Appendix C

Sanborn Map(s)



Oklahoma Veterans Center

S. Kerr Blvd

Sallisaw, OK 74955

Inquiry Number: 5698780.3

June 25, 2019

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

06/25/19

Site Name:

Oklahoma Veterans Center
S. Kerr Blvd
Sallisaw, OK 74955
EDR Inquiry # 5698780.3

Client Name:

Eagle Env. Consulting Inc.
438638 E. 220 Rd.
Vinita, OK 74301
Contact: David Bednar, Jr.



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Eagle Env. Consulting Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 8303-47C5-9FA5
PO # NA
Project Oklahoma Veterans Center

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: 8303-47C5-9FA5

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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Eagle Env. Consulting Inc. (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

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Appendix D

User Inquiry Questionnaire

ASTM E1527-13 USER QUESTIONNAIRE

Site Name: Oklahoma Veterans Center

In order to qualify for one of the Landowner Liability Protections, or LLPs ¹⁸⁷ offer by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (The "Brownfields Amendments")¹⁸⁸ the user must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30 and 212.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The user should provide the following information to the environmental professional. Failure to conduct these inquiries could result in a determination that "all appropriate inquiries" is not complete.

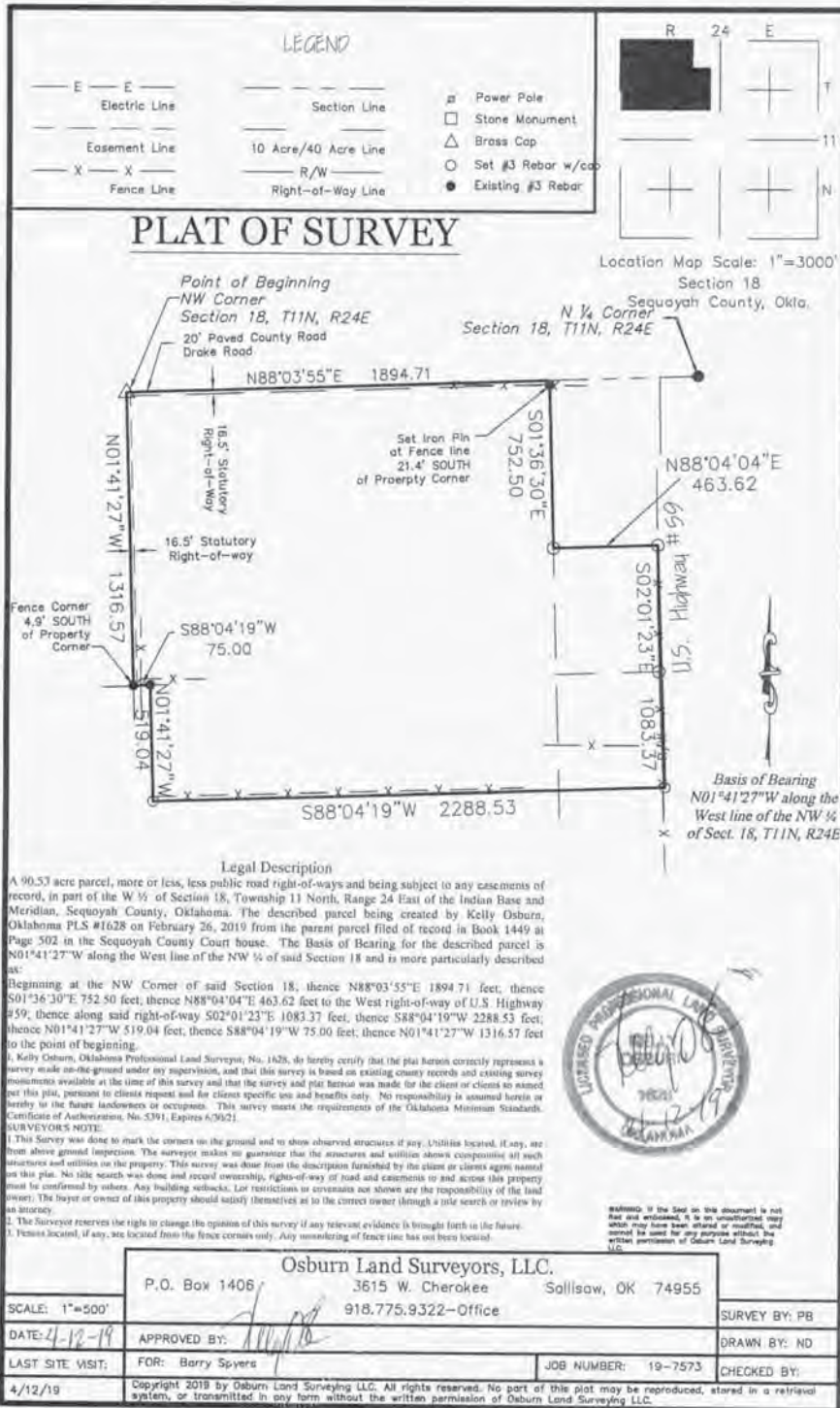
Part A. Please answer the following questions	
1) Are you aware of any environmental liens against the <i>property</i> that are filed or recorded under federal, tribal, state or local law?	No
2) Are you aware of any Activity and Use Limitations (AULs), such as <i>engineering controls</i> , land use restrictions or <i>institutional controls</i> that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?	No
3) As the <i>user</i> of this <i>ESA</i> do you have any specialized knowledge or experience related to the <i>property</i> or nearby properties? For example, are you involved in the same line of business as the current or former <i>occupants</i> of the <i>property</i> or an adjoining <i>property</i> so that you would have specialized knowledge of the chemicals and processes used by this type of business?	No
4) Does the purchase price being paid for this <i>property</i> reasonably reflect the fair market value of the <i>property</i> ? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the <i>property</i> ?	Yes
5) Are you aware of commonly known or <i>reasonably ascertainable</i> information about the <i>property</i> that would help the <i>environmental professional</i> to identify conditions indicative of releases or threatened releases? For example, as <i>user</i> ,	No

(a.) Are you aware of any past uses of the <i>property</i> ?	Yes, Agriculture
(b.) Are you aware of specific chemicals that are present or once were present at the <i>property</i> ?	No
(c.) Do you know of spills or other chemical releases that have taken place at the <i>property</i> ?	No
(d.) Do you know of any environmental cleanups that have taken place at the <i>property</i> ?	No
Part B	
Does the User have any of the following documents concerning the property? IF so, please provide.	
Environmental Site Assessment Reports	Phase 1 Environmental conducted by the City of Sallisaw
Environmental Compliance Audit Reports	No
Environmental Permits, for example solid waste disposal permit, hazardous waste disposal permit, wastewater permit, NPDES Permit.	No
Registration and/or Compliance Testing Records for Underground Storage Tanks	No
Registration and/or Compliance Testing Records for Above Ground Storage Tanks	No
Material Safety Data Sheets	
Safety Plan, Spill Prevention Plan, Facility Response Plans, Any Plans.	No
Notices of any government agency related to past of current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property.	No
Hazardous Waste Generators Notices or Reports	No
Part C	
Please answer the following questions.	
Are there any water wells at the property?	No
Are there or have there been underground or above ground storage tanks at the property?	No
Are there any oil and gas wells at the property?	No
Provide the legal description of the property.	(See Attached)
Provide the physical addresses of buildings at the property.	N/A
What is the current zoning of the property?	Commercially Zoned
What are the construction dates of all buildings at the property?	N/A
What are the dates of the sewer lines from the buildings on the property?	N/A
If the property is on septic system, please provide size of tank and date installed.	N/A

Prepared By:

Signature and Date of Person Completing Questionnaire

 Date 07/05/19



Appendix E

EDR Database Records/Agency Coordination/Documentation

Oklahoma Veterans Center

S. Kerr Blvd

Sallisaw, OK 74955

Inquiry Number: 5698780.2s

June 25, 2019

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

S. KERR BLVD
SALLISAW, OK 74955

COORDINATES

Latitude (North): 35.4317450 - 35° 25' 54.28"
Longitude (West): 94.8086080 - 94° 48' 30.98"
Universal Transverse Mercator: Zone 15
UTM X (Meters): 335820.2
UTM Y (Meters): 3922227.2
Elevation: 510 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 5693450 SALLISAW, OK
Version Date: 2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20150809
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:
 S. KERR BLVD
 SALLISAW, OK 74955

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	ROBERT S. KERR LAKE		DOD	Same	739, 0.140, West
1	SOUTH BIG D	HWY 59 S	UST	Higher	1 ft.
2	007 RANCH	U.S. HWY 59 S SEC 18	UST, HIST UST	Lower	1257, 0.238, SSE
3	GENTRY'S SPORTING GO	HWY 59 S (2 MI)	LUST	Lower	1963, 0.372, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS..... The Land Report

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Permitted Solid Waste Disposal & Processing Facilities

State and tribal leaking storage tank lists

LAST..... Leaking Aboveground Storage Tanks List

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

AST..... Aboveground Storage Tanks

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

INST CONTROL..... Institutional Control Sites

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Site Inventory

INDIAN VCP..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS..... Brownfield Sites

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY..... Recycling Facilities

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

ODI..... Open Dump Inventory

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

EXECUTIVE SUMMARY

US CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System

OK COMPLAINT..... Oklahoma Complaint System Database

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated

FUDS..... Formerly Used Defense Sites

SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing

US FIN ASSUR..... Financial Assurance Information

EPA WATCH LIST..... EPA WATCH LIST

2020 COR ACTION..... 2020 Corrective Action Program List

TSCA..... Toxic Substances Control Act

TRIS..... Toxic Chemical Release Inventory System

SSTS..... Section 7 Tracking Systems

ROD..... Records Of Decision

RMP..... Risk Management Plans

RAATS..... RCRA Administrative Action Tracking System

PRP..... Potentially Responsible Parties

PADS..... PCB Activity Database System

ICIS..... Integrated Compliance Information System

FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

MLTS..... Material Licensing Tracking System

COAL ASH DOE..... Steam-Electric Plant Operation Data

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

PCB TRANSFORMER..... PCB Transformer Registration Database

RADINFO..... Radiation Information Database

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

DOT OPS..... Incident and Accident Data

CONSENT..... Superfund (CERCLA) Consent Decrees

INDIAN RESERV..... Indian Reservations

FUSRAP..... Formerly Utilized Sites Remedial Action Program

UMTRA..... Uranium Mill Tailings Sites

LEAD SMELTERS..... Lead Smelter Sites

US AIRS..... Aerometric Information Retrieval System Facility Subsystem

US MINES..... Mines Master Index File

ABANDONED MINES..... Abandoned Mines

FINDS..... Facility Index System/Facility Registry System

UXO..... Unexploded Ordnance Sites

ECHO..... Enforcement & Compliance History Information

DOCKET HWC..... Hazardous Waste Compliance Docket Listing

FUELS PROGRAM..... EPA Fuels Program Registered Listing

AIRS..... Permitted AIRS Facility Listing

DRYCLEANERS..... Drycleaner Facility Listing

Financial Assurance..... Financial Assurance Information Listing

TIER 2..... Tier 2 Data Listing

UIC..... Underground Injection Wells Database Listing

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP..... EDR Proprietary Manufactured Gas Plants
EDR Hist Auto..... EDR Exclusive Historical Auto Stations
EDR Hist Cleaner..... EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS..... Recovered Government Archive State Hazardous Waste Facilities List
RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Oklahoma Corporation Commission's Leaking UST list.

A review of the LUST list, as provided by EDR, and dated 05/30/2019 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GENTRY'S SPORTING GO STATUS: Closed Facility Id: 6814333 Close Date: 02/10/1997	HWY 59 S (2 MI)	SSE 1/4 - 1/2 (0.372 mi.)	3	11

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Oklahoma Corporation Commission's State UST List, List II Version.

A review of the UST list, as provided by EDR, and dated 12/07/2018 has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SOUTH BIG D Facility Id: 6810081 TankStatus: POU	HWY 59 S	0 - 1/8 (0.000 mi.)	1	8

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
007 RANCH Facility Id: 6803067 TankStatus: POU	U.S. HWY 59 S SEC 18	SSE 1/8 - 1/4 (0.238 mi.)	2	9

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

HIST UST: This underground storage tank listing includes tank information through March 2003. This listing is no longer updated by the Oklahoma Corporation Commission.

A review of the HIST UST list, as provided by EDR, and dated 03/21/2003 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
007 RANCH Facility Id: 6803067 Tank Status: Permanently Out of Use	U.S. HWY 59 S SEC 18	SSE 1/8 - 1/4 (0.238 mi.)	2	9

Other Ascertainable Records

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

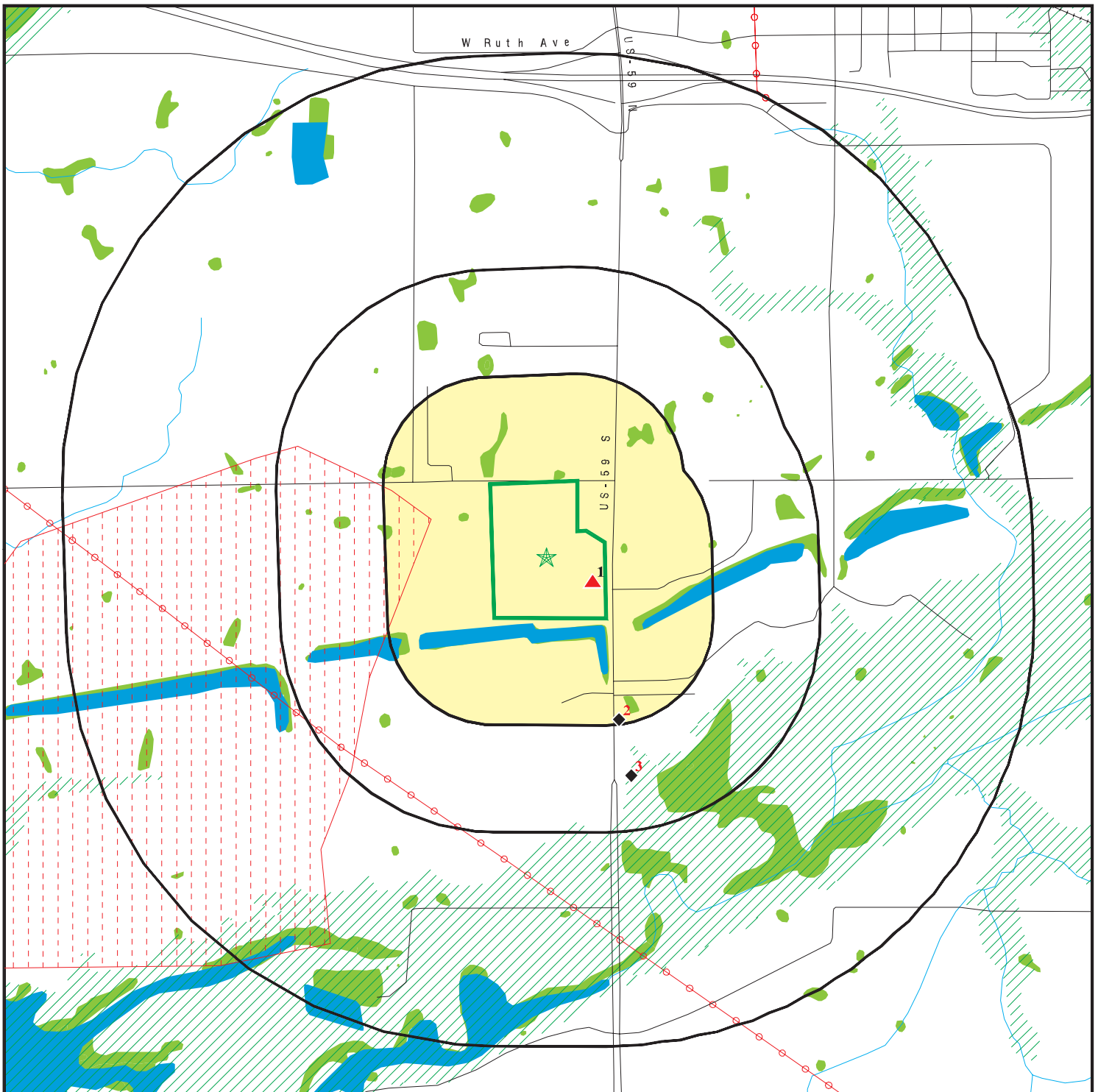
A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately 1 mile of the target property.












<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ROBERT S. KERR LAKE		W 1/8 - 1/4 (0.140 mi.)	0	8

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5698780.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory










This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.


SITE NAME: Oklahoma Veterans Center
 ADDRESS: S. Kerr Blvd
 Sallisaw OK 74955
 LAT/LONG: 35.431745 / 94.808608

CLIENT: Eagle Env. Consulting Inc.
 CONTACT: David Bednar, Jr.
 INQUIRY #: 5698780.2s
 DATE: June 25, 2019 7:05 pm

DETAIL MAP - 5698780.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites

-  Indian Reservations BIA
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Oklahoma Veterans Center
 ADDRESS: S. Kerr Blvd
 Sallisaw OK 74955
 LAT/LONG: 35.431745 / 94.808608

CLIENT: Eagle Env. Consulting Inc.
 CONTACT: David Bednar, Jr.
 INQUIRY #: 5698780.2s
 DATE: June 25, 2019 7:07 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LAST	0.500		0	0	0	NR	NR	0
LUST	0.500		0	0	1	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		1	1	NR	NR	NR	2
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
<i>State and tribal institutional control / engineering control registries</i>								
INST CONTROL	0.500		0	0	0	NR	NR	0
<i>State and tribal voluntary cleanup sites</i>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<i>State and tribal Brownfields sites</i>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<u>ADDITIONAL ENVIRONMENTAL RECORDS</u>								
<i>Local Brownfield lists</i>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Landfill / Solid Waste Disposal Sites</i>								
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<i>Local Lists of Hazardous waste / Contaminated Sites</i>								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
<i>Local Lists of Registered Storage Tanks</i>								
HIST UST	0.250		0	1	NR	NR	NR	1
<i>Local Land Records</i>								
LIENS 2	TP		NR	NR	NR	NR	NR	0
<i>Records of Emergency Release Reports</i>								
HMIRS	TP		NR	NR	NR	NR	NR	0
OK COMPLAINT	TP		NR	NR	NR	NR	NR	0
<i>Other Ascertainable Records</i>								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	1	0	0	NR	1
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
TIER 2	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	1	3	1	0	0	5

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

DOD
Region
West
1/8-1/4
739 ft.

ROBERT S. KERR LAKE
ROBERT S. KERR LAKE (County), OK

DOD **CUSA139472**
N/A

DOD:
Feature 1: Army Corps of Engineers DOD
Feature 2: Not reported
Feature 3: Not reported
URL: Not reported
Name 1: Robert S. Kerr Lake
Name 2: Not reported
Name 3: Not reported
State: OK
DOD Site: Yes
Tile name: OKHASKELL

1
< 1/8
1 ft.

SOUTH BIG D
HWY 59 S
SALLISAW, OK 74955

UST **U004132389**
N/A

Relative:
Higher
Actual:
511 ft.

UST:
Facility ID: 6810081
Contact Name: Big D Enterprises, Inc
Contact Address: 2500 S ZERO ST #B
Contact Telephone: 5017834141
Contact City,St,Zip: Fort Smith, AR 72901
Lat/Long: 35.431 / -94.8067

Tank ID: 1
Tank Status: Permanently Out Of Use
Total Capacity: 11000
Substance: Gasoline
Date Installed: Not reported
Tank Type: UST
Closed Date: Not reported
Decode of Tank Status: Permanently out of use
Closure Status: Not Listed
Tank Construction: Single Walled
Tank Material: Steel
Pipe Construction: Single-Walled
Pipe Material: Not reported

Tank ID: 2
Tank Status: Permanently Out Of Use
Total Capacity: 11000
Substance: Gasoline
Date Installed: Not reported
Tank Type: UST
Closed Date: Not reported
Decode of Tank Status: Permanently out of use
Closure Status: Not Listed
Tank Construction: Single Walled
Tank Material: Steel
Pipe Construction: Single-Walled
Pipe Material: Not reported

Tank ID: 3

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SOUTH BIG D (Continued)

U004132389

Tank Status: Permanently Out Of Use
 Total Capacity: 11000
 Substance: Diesel
 Date Installed: Not reported
 Tank Type: UST
 Closed Date: Not reported
 Decode of Tank Status: Permanently out of use
 Closure Status: Not Listed
 Tank Construction: Single Walled
 Tank Material: Steel
 Pipe Construction: Single-Walled
 Pipe Material: Not reported

Tank ID: 4
 Tank Status: Permanently Out Of Use
 Total Capacity: 4000
 Substance: Gasoline
 Date Installed: Not reported
 Tank Type: UST
 Closed Date: Not reported
 Decode of Tank Status: Permanently out of use
 Closure Status: Not Listed
 Tank Construction: Single Walled
 Tank Material: Steel
 Pipe Construction: Single-Walled
 Pipe Material: Not reported

2
SSE
1/8-1/4
0.238 mi.
1257 ft.

007 RANCH
U.S. HWY 59 S SEC 18-11N-24E
SALLISAW, OK 74955

UST U001232260
HIST UST N/A

Relative:
Lower
Actual:
501 ft.

UST:
 Facility ID: 6803067
 Contact Name: Jim Jones
 Contact Address: 204 N ELM STR PO DRAWER 588
 Contact Telephone: 9187756213
 Contact City,St,Zip: Sallisaw, OK 74955
 Lat/Long: 35.4263 / -94.8056

Tank ID: 1
 Tank Status: Permanently Out Of Use
 Total Capacity: 3000
 Substance: Diesel
 Date Installed: 04/09/1979
 Tank Type: UST
 Closed Date: 06/29/1994
 Decode of Tank Status: Permanently out of use
 Closure Status: Tank Removed From Ground
 Tank Construction: Single Walled
 Tank Material: Steel
 Pipe Construction: Single-Walled
 Pipe Material: Steel

Tank ID: 2
 Tank Status: Permanently Out Of Use
 Total Capacity: 3000
 Substance: Gasoline

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

007 RANCH (Continued)

U001232260

Date Installed: 04/09/1979
Tank Type: UST
Closed Date: 06/29/1994
Decode of Tank Status: Permanently out of use
Closure Status: Tank Removed From Ground
Tank Construction: Single Walled
Tank Material: Steel
Pipe Construction: Single-Walled
Pipe Material: Steel

Tank ID: 3
Tank Status: Permanently Out Of Use
Total Capacity: 3000
Substance: Gasoline
Date Installed: 04/09/1979
Tank Type: UST
Closed Date: 06/29/1994
Decode of Tank Status: Permanently out of use
Closure Status: Tank Removed From Ground
Tank Construction: Single Walled
Tank Material: Steel
Pipe Construction: Single-Walled
Pipe Material: Steel

HIST UST:

Facility ID: 6803067
Owner Name: JIM JONES
Owner Address: 204 N ELM STR PO DRAWER 588
Owner City,St,Zip: Sallisaw, OK 74955
Tank ID: 1
Tank Status: Permanently Out of Use
Installed Date: 4/9/1979 0:00:00
Tank Capacity: 3000
Product: Diesel

Facility ID: 6803067
Owner Name: JIM JONES
Owner Address: 204 N ELM STR PO DRAWER 588
Owner City,St,Zip: Sallisaw, OK 74955
Tank ID: 2
Tank Status: Permanently Out of Use
Installed Date: 4/9/1979 0:00:00
Tank Capacity: 3000
Product: Gasoline

Facility ID: 6803067
Owner Name: JIM JONES
Owner Address: 204 N ELM STR PO DRAWER 588
Owner City,St,Zip: Sallisaw, OK 74955
Tank ID: 3
Tank Status: Permanently Out of Use
Installed Date: 4/9/1979 0:00:00
Tank Capacity: 3000
Product: Gasoline

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

3
SSE
1/4-1/2
0.372 mi.
1963 ft.

GENTRY'S SPORTING GOODS
HWY 59 S (2 MI)
SALLISAW, OK 74955

LUST **S109417738**
N/A

Relative:
Lower

LUST:

Actual:
476 ft.

Name: GENTRY'S SPORTING GOODS
Address: HWY 59 S (2 MI)
City,State,Zip: SALLISAW, OK 74955
Facility ID: 6814333
Case Number: AST-0040
Case Type: Confirmed Release
Tank Type: UST
Release Date: 01/02/1997
Close Date: 02/10/1997
Lat/Long: 35.4244 / -94.8051
Status: Closed

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NO SITES FOUND					

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: N/A
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 06/06/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: N/A
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 06/06/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 26

Source: EPA
Telephone: N/A
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: 800-424-9346
Date Made Active in Reports: 05/23/2019	Last EDR Contact: 06/06/2019
Number of Days to Update: 35	Next Scheduled EDR Contact: 07/29/2019
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/25/2019	Source: EPA
Date Data Arrived at EDR: 03/27/2019	Telephone: 800-424-9346
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: 214-665-6444
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: 214-665-6444
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: 214-665-6444
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2019	Telephone: 214-665-6444
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 03/27/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 02/22/2019	Source: Department of the Navy
Date Data Arrived at EDR: 03/07/2019	Telephone: 843-820-7326
Date Made Active in Reports: 04/17/2019	Last EDR Contact: 05/10/2019
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 05/29/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 09/09/2019
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/31/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/04/2019	Telephone: 703-603-0695
Date Made Active in Reports: 03/08/2019	Last EDR Contact: 05/29/2019
Number of Days to Update: 32	Next Scheduled EDR Contact: 09/09/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 36

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Voluntary Cleanup & Superfund Site Status Report

Land restoration projects carried out in several DEQ programs.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 05/28/2010
Date Made Active in Reports: 07/13/2010
Number of Days to Update: 46

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 05/17/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Permitted Solid Waste Disposal & Processing Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/20/2018
Date Data Arrived at EDR: 10/31/2018
Date Made Active in Reports: 12/18/2018
Number of Days to Update: 48

Source: Department of Environmental Quality
Telephone: 405-702-5184
Last EDR Contact: 05/01/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Annually

State and tribal leaking storage tank lists

LAST: Leaking Aboveground Storage Tanks List

Leaking aboveground storage tank site locations.

Date of Government Version: 05/30/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 4

Source: Oklahoma Corporation Commission
Telephone: 405-522-4640
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

LUST: Leaking Underground Storage Tank List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/30/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 4

Source: Oklahoma Corporation Commission
Telephone: 405-521-3107
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/12/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/17/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/10/2018
Date Data Arrived at EDR: 03/08/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/16/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 02/19/2019
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 11/01/2018
Date Data Arrived at EDR: 03/07/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 55

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/24/2018
Date Data Arrived at EDR: 03/12/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 50

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/13/2018	Source: EPA Region 1
Date Data Arrived at EDR: 03/07/2019	Telephone: 617-918-1313
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017	Source: FEMA
Date Data Arrived at EDR: 05/30/2017	Telephone: 202-646-5797
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 04/25/2019
Number of Days to Update: 136	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Varies

UST: Underground Storage Tank Listing
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 12/07/2018	Source: Oklahoma Corporation Commission
Date Data Arrived at EDR: 12/26/2018	Telephone: 405-521-3107
Date Made Active in Reports: 01/07/2019	Last EDR Contact: 06/13/2019
Number of Days to Update: 12	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Varies

AST: Aboveground Storage Tanks
Registered Aboveground Storage Tanks.

Date of Government Version: 12/07/2018	Source: Oklahoma Corporation Commission
Date Data Arrived at EDR: 12/26/2018	Telephone: 405-521-3107
Date Made Active in Reports: 01/07/2019	Last EDR Contact: 06/13/2019
Number of Days to Update: 12	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 10/10/2018	Source: EPA Region 9
Date Data Arrived at EDR: 03/08/2019	Telephone: 415-972-3368
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/03/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 03/07/2019	Telephone: 617-918-1313
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/16/2018	Source: EPA Region 8
Date Data Arrived at EDR: 03/07/2019	Telephone: 303-312-6137
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/17/2018	Source: EPA Region 10
Date Data Arrived at EDR: 03/07/2019	Telephone: 206-553-2857
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 03/07/2019	Telephone: 312-886-6136
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 11/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 03/07/2019	Telephone: 214-665-7591
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/07/2018	Source: EPA Region 7
Date Data Arrived at EDR: 03/07/2019	Telephone: 913-551-7003
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/24/2018	Source: EPA Region 4
Date Data Arrived at EDR: 03/12/2019	Telephone: 404-562-9424
Date Made Active in Reports: 05/01/2019	Last EDR Contact: 04/26/2019
Number of Days to Update: 50	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal institutional control / engineering control registries

INST CONTROL: Institutional Control Sites
Sites with institutional controls in place.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 05/17/2018
Date Made Active in Reports: 07/02/2018
Number of Days to Update: 46

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/20/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Varies

VCP: Voluntary Cleanup Site Inventory

Investigations and cleanups by groups or individuals participating in the Voluntary Cleanup Program (VCP).

Date of Government Version: 01/25/2019
Date Data Arrived at EDR: 02/13/2019
Date Made Active in Reports: 06/13/2019
Number of Days to Update: 120

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 06/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Brownfield Sites

Brownfields are defined by Oklahoma law as abandoned, idled or under used industrial or commercial facilities or other real property at which expansion or redevelopment of the real property is complicated by environmental contamination caused by regulated substances. This program provides a means for private parties and government entities to voluntarily investigate and if warranted, clean up properties that may be contaminated with hazardous wastes. The formal Brownfields Program provides specific state liability relief and protects the property from federal Superfund actions.

Date of Government Version: 09/07/2012
Date Data Arrived at EDR: 09/07/2012
Date Made Active in Reports: 10/10/2012
Number of Days to Update: 33

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

BROWNFIELDS 2: Brownfields Public Record Listing

The Brownfields program provides a means for private parties and government entities to voluntarily investigate and if warranted, clean up properties that may be contaminated with hazardous wastes. The formal Brownfields Program provides specific state liability relief and protects the property from federal Superfund actions.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/14/2019
Date Data Arrived at EDR: 05/16/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 13

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 05/13/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

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. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/17/2018
Date Data Arrived at EDR: 12/18/2018
Date Made Active in Reports: 01/11/2019
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/04/2019
Next Scheduled EDR Contact: 09/30/2019
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Facilities

A listing of recycling facility locations.

Date of Government Version: 12/21/2018
Date Data Arrived at EDR: 01/17/2019
Date Made Active in Reports: 03/06/2019
Number of Days to Update: 48

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 04/19/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 04/23/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site 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.

Date of Government Version: 02/24/2019
Date Data Arrived at EDR: 02/26/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 50

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

HIST UST: Underground Storage Tank List, List II Version

This underground storage tank listing includes tank information through March 2003. This listing is no longer updated by the Oklahoma Corporation Commission.

Date of Government Version: 03/21/2003
Date Data Arrived at EDR: 04/28/2003
Date Made Active in Reports: 05/27/2003
Number of Days to Update: 29

Source: Oklahoma Corporation Commission
Telephone: 405-521-3107
Last EDR Contact: 01/19/2009
Next Scheduled EDR Contact: 04/19/2009
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA 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.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/11/2019
Date Data Arrived at EDR: 04/18/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 35

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 06/06/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 49

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/26/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

OK COMPLAINT: Oklahoma Complaint System Database

Environmental complaints reported to the Oklahoma Corporation Commission.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 06/11/2019
Date Made Active in Reports: 06/17/2019
Number of Days to Update: 6

Source: Oklahoma Conservation Commission
Telephone: 405-521-4828
Last EDR Contact: 06/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: Annually

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/27/2019
Date Made Active in Reports: 04/17/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 214-665-6444
Last EDR Contact: 03/27/2019
Next Scheduled EDR Contact: 07/08/2019
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 03/07/2019
Date Data Arrived at EDR: 04/03/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 50

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 05/21/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/12/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/12/2019
Number of Days to Update: 339	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 05/13/2019
Number of Days to Update: 63	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/26/2019	Telephone: 202-566-1917
Date Made Active in Reports: 05/07/2019	Last EDR Contact: 03/26/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 07/08/2019
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/06/2019
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 05/10/2019
Number of Days to Update: 73	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 06/18/2019
Number of Days to Update: 198	Next Scheduled EDR Contact: 09/30/2019
	Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 01/10/2018	Telephone: 202-566-0250
Date Made Active in Reports: 01/12/2018	Last EDR Contact: 05/24/2019
Number of Days to Update: 2	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 04/24/2019
Number of Days to Update: 77	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: 703-416-0223
Date Made Active in Reports: 05/23/2019	Last EDR Contact: 06/06/2019
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/16/2019
	Data Release Frequency: Annually

RMP: Risk Management Plans

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/02/2019	Telephone: 202-564-8600
Date Made Active in Reports: 05/23/2019	Last EDR Contact: 04/22/2019
Number of Days to Update: 21	Next Scheduled EDR Contact: 08/05/2019
	Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/11/2019	Source: EPA
Date Data Arrived at EDR: 04/18/2019	Telephone: 202-564-6023
Date Made Active in Reports: 05/23/2019	Last EDR Contact: 06/06/2019
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

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

Date of Government Version: 03/20/2019	Source: EPA
Date Data Arrived at EDR: 04/10/2019	Telephone: 202-566-0500
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 04/10/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 04/08/2019
Number of Days to Update: 79	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 04/22/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/07/2019
Next Scheduled EDR Contact: 09/16/2019
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 04/26/2019
Next Scheduled EDR Contact: 08/05/2019
Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/02/2019
Date Data Arrived at EDR: 04/02/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/02/2019
Next Scheduled EDR Contact: 07/15/2019
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 12/03/2018
Date Data Arrived at EDR: 01/29/2019
Date Made Active in Reports: 03/21/2019
Number of Days to Update: 51

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 04/30/2019
Next Scheduled EDR Contact: 08/12/2019
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 30

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 07/22/2019
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/24/2019
Next Scheduled EDR Contact: 09/02/2019
Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 04/11/2019
Number of Days to Update: 546	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017	Source: Department of Energy
Date Data Arrived at EDR: 09/11/2018	Telephone: 202-586-3559
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 05/02/2019
Number of Days to Update: 3	Next Scheduled EDR Contact: 08/19/2019
	Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017	Source: Department of Energy
Date Data Arrived at EDR: 10/11/2017	Telephone: 505-845-0011
Date Made Active in Reports: 11/03/2017	Last EDR Contact: 05/24/2019
Number of Days to Update: 23	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 04/11/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/18/2019	Telephone: 703-603-8787
Date Made Active in Reports: 05/14/2019	Last EDR Contact: 06/06/2019
Number of Days to Update: 26	Next Scheduled EDR Contact: 07/15/2019
	Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/27/2018
Date Data Arrived at EDR: 02/27/2019
Date Made Active in Reports: 04/01/2019
Number of Days to Update: 33

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 05/29/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/31/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 05/31/2019
Next Scheduled EDR Contact: 09/09/2019
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

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.

Date of Government Version: 03/27/2019
Date Data Arrived at EDR: 03/28/2019
Date Made Active in Reports: 05/01/2019
Number of Days to Update: 34

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 06/19/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/15/2019	Source: EPA
Date Data Arrived at EDR: 03/05/2019	Telephone: (214) 665-2200
Date Made Active in Reports: 03/15/2019	Last EDR Contact: 06/05/2019
Number of Days to Update: 10	Next Scheduled EDR Contact: 09/16/2019
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 05/24/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 09/09/2019
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017	Source: Department of Defense
Date Data Arrived at EDR: 01/17/2019	Telephone: 703-704-1564
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 04/15/2019
Number of Days to Update: 74	Next Scheduled EDR Contact: 07/29/2019
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/07/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/09/2019	Telephone: 202-564-2280
Date Made Active in Reports: 05/23/2019	Last EDR Contact: 04/09/2019
Number of Days to Update: 44	Next Scheduled EDR Contact: 07/22/2019
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/19/2019	Source: EPA
Date Data Arrived at EDR: 02/21/2019	Telephone: 800-385-6164
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 05/21/2019
Number of Days to Update: 39	Next Scheduled EDR Contact: 09/02/2019
	Data Release Frequency: Quarterly

AIRS: Permitted AIRS Facility Listing

A listing of permitted AIRS facility locations.

Date of Government Version: 05/14/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 05/15/2019	Telephone: 405-702-4100
Date Made Active in Reports: 06/18/2019	Last EDR Contact: 06/21/2019
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/07/2019
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DRYCLEANERS: Drycleaner Facilities

A listing of drycleaner facility locations.

Date of Government Version: 03/25/2019
Date Data Arrived at EDR: 03/26/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 64

Source: Department of Environmental Quality
Telephone: 405-702-9100
Last EDR Contact: 06/21/2019
Next Scheduled EDR Contact: 10/07/2019
Data Release Frequency: Quarterly

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information.

Date of Government Version: 07/25/2014
Date Data Arrived at EDR: 11/06/2014
Date Made Active in Reports: 01/13/2015
Number of Days to Update: 68

Source: Department of Environmental Quality
Telephone: 405-702-5105
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

Financial Assurance 2: Financial Assurance Information Listing

Financial Assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 12/10/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 01/24/2014
Number of Days to Update: 43

Source: Department of Environmental Quality
Telephone: 405-702-5100
Last EDR Contact: 05/10/2019
Next Scheduled EDR Contact: 08/26/2019
Data Release Frequency: No Update Planned

TIER 2: Tier 2 Data Listing

A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 09/28/2018
Date Made Active in Reports: 10/26/2018
Number of Days to Update: 28

Source: Department of Environmental Quality
Telephone: 405-702-1000
Last EDR Contact: 06/10/2019
Next Scheduled EDR Contact: 09/23/2019
Data Release Frequency: Annually

UIC: Underground Injection Wells Database Listing

Class I injection wells. CLASS I wells are used to inject liquid hazardous and non-hazardous wastes beneath the lower most Underground Sources of Drinking Water (USDW).

Date of Government Version: 03/18/2019
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Department of Environmental Quality
Telephone: 405-702-5188
Last EDR Contact: 04/17/2019
Next Scheduled EDR Contact: 07/29/2019
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oklahoma.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oklahoma.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/20/2014
Number of Days to Update: 203

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Oklahoma Corporation Commission in Oklahoma.

Date of Government Version: N/A	Source: Oklahoma Corporation Commission
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/27/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 179	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 02/11/2019	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 02/12/2019	Telephone: 860-424-3375
Date Made Active in Reports: 03/04/2019	Last EDR Contact: 05/14/2019
Number of Days to Update: 20	Next Scheduled EDR Contact: 08/26/2019
	Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/01/2019	Telephone: 518-402-8651
Date Made Active in Reports: 06/21/2019	Last EDR Contact: 05/01/2019
Number of Days to Update: 51	Next Scheduled EDR Contact: 08/12/2019
	Data Release Frequency: Quarterly

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017	Source: Department of Natural Resources
Date Data Arrived at EDR: 06/15/2018	Telephone: N/A
Date Made Active in Reports: 07/09/2018	Last EDR Contact: 06/10/2019
Number of Days to Update: 24	Next Scheduled EDR Contact: 09/23/2019
	Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers

Source: Department of Human Services

Telephone: 405-521-3561

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

OKLAHOMA VETERANS CENTER
S. KERR BLVD
SALLISAW, OK 74955

TARGET PROPERTY COORDINATES

Latitude (North):	35.431745 - 35° 25' 54.28"
Longitude (West):	94.808608 - 94° 48' 30.99"
Universal Tranverse Mercator:	Zone 15
UTM X (Meters):	335820.2
UTM Y (Meters):	3922227.2
Elevation:	510 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5693450 SALLISAW, OK
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

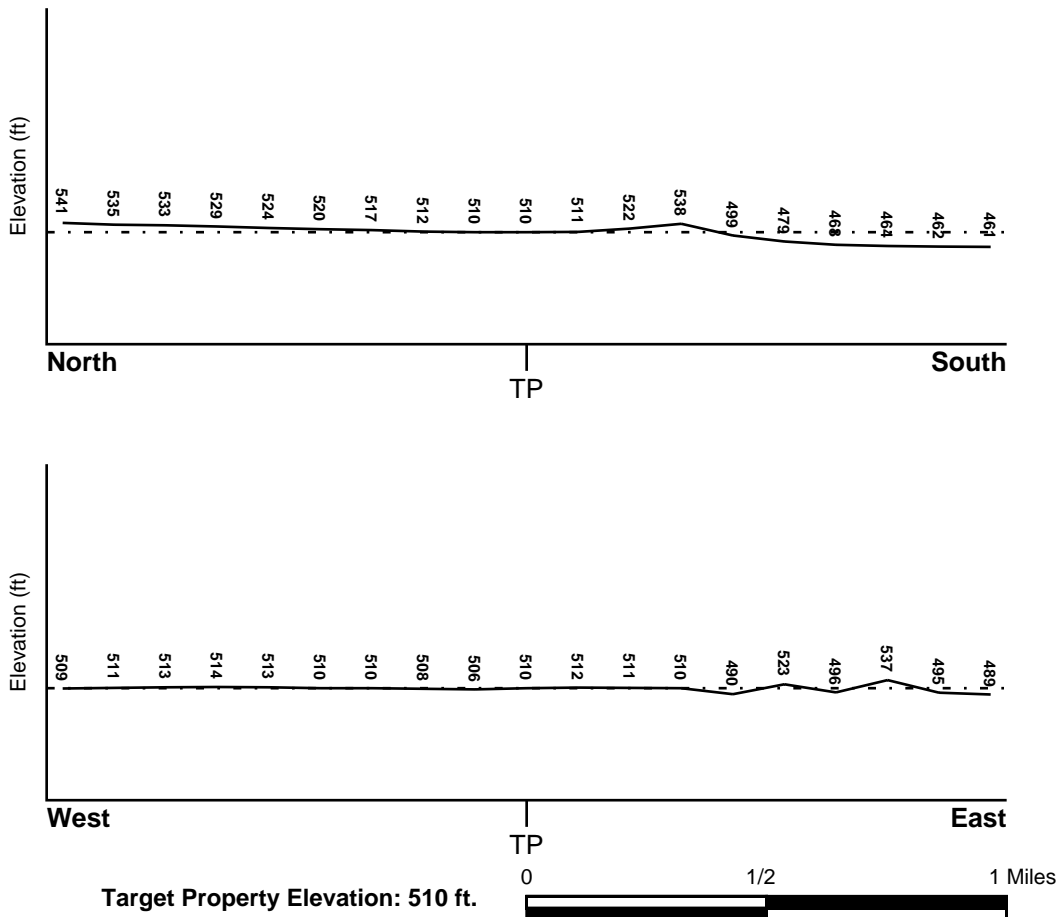
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
40135C0420F	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
40135C0405F	FEMA FIRM Flood data
40135C0408F	FEMA FIRM Flood data
40135C0415F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
SALLISAW	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

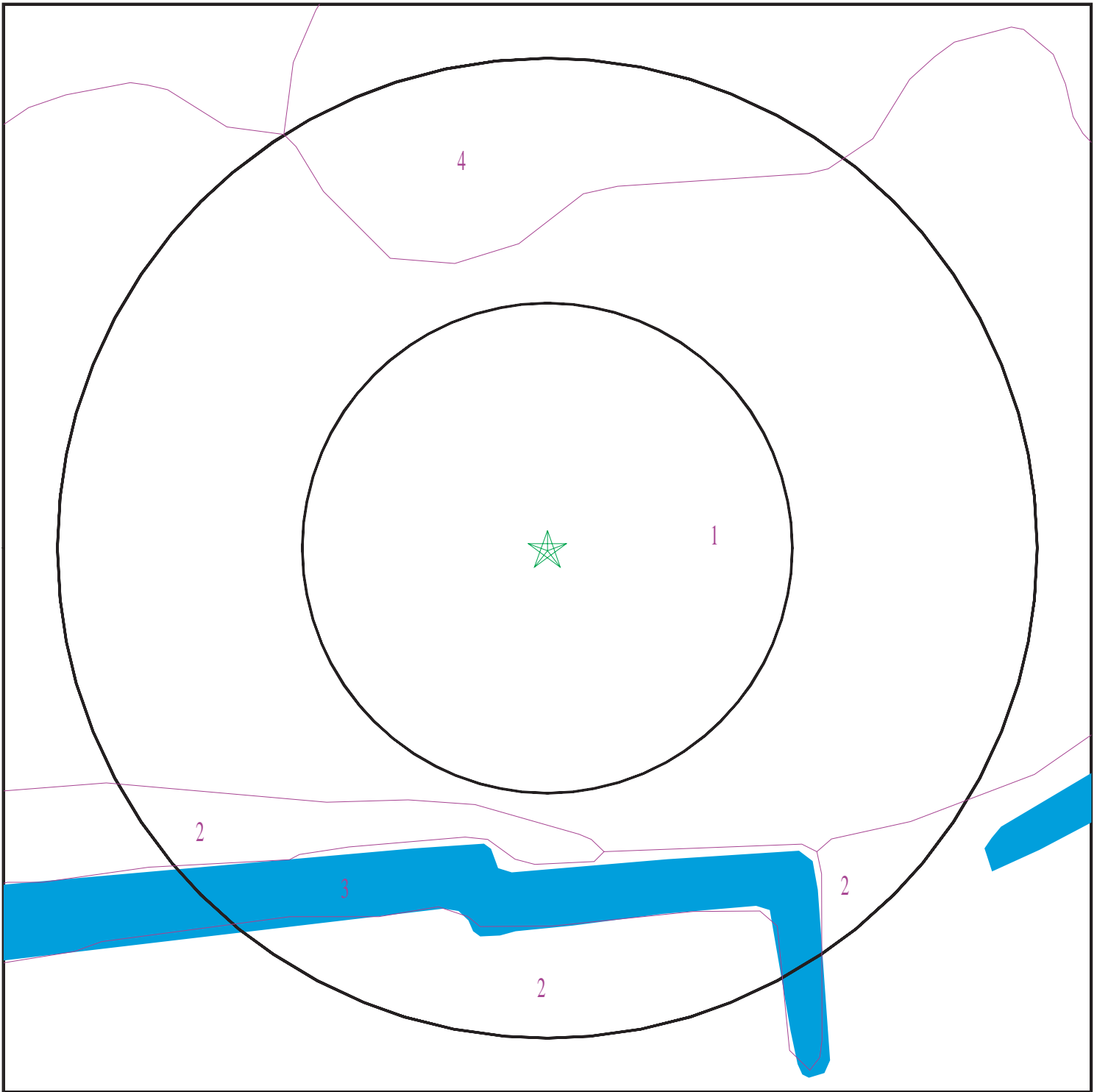
Era:	Paleozoic
System:	Pennsylvanian
Series:	Des Moinesian Series
Code:	PP2 (<i>decoded above as Era, System & Series</i>)

GEOLOGIC AGE IDENTIFICATION

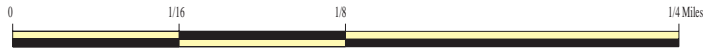
Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5698780.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Oklahoma Veterans Center
ADDRESS: S. Kerr Blvd
Sallisaw OK 74955
LAT/LONG: 35.431745 / 94.808608

CLIENT: Eagle Env. Consulting Inc.
CONTACT: David Bednar, Jr.
INQUIRY #: 5698780.2s
DATE: June 25, 2019 7:08 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Vian

Soil Surface Texture: silt loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 76 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Not reported	Not reported	Max: 4.233 Min: 1.4114	Max: 5.5 Min: 4.5
2	9 inches	18 inches	silt loam	Not reported	Not reported	Max: 4.233 Min: 1.4114	Max: 5.5 Min: 4.5
3	18 inches	25 inches	silt loam	Not reported	Not reported	Max: 4.233 Min: 1.4114	Max: 5.5 Min: 4.5
4	25 inches	72 inches	silty clay loam	Not reported	Not reported	Max: 4.233 Min: 1.4114	Max: 5.5 Min: 4.5

Soil Map ID: 2

Soil Component Name: Kanima

Soil Surface Texture: very gravelly silty clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	very gravelly silty clay loam	Not reported	Not reported	Max: 14.114 Min: 4.233	Max: 8.4 Min: 5.6
2	5 inches	72 inches	very gravelly silty clay loam	Not reported	Not reported	Max: 14.114 Min: 4.233	Max: 8.4 Min: 5.6

Soil Map ID: 3

Soil Component Name: Water

Soil Surface Texture: water

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:
Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	79 inches	water	Not reported	Not reported	Max: Min:	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 4

Soil Component Name: Stigler

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 46 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	silt loam	Not reported	Not reported	Max: 1.4114 Min: 0	Max: Min:
2	9 inches	18 inches	silt loam	Not reported	Not reported	Max: 1.4114 Min: 0	Max: Min:
3	18 inches	24 inches	silty clay loam	Not reported	Not reported	Max: 1.4114 Min: 0	Max: Min:
4	24 inches	66 inches	silty clay loam	Not reported	Not reported	Max: 1.4114 Min: 0	Max: Min:
5	66 inches	74 inches	bedrock	Not reported	Not reported	Max: 1.4114 Min: 0	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
3	USGS40000969365	1/2 - 1 Mile West
4	USGS40000969347	1/2 - 1 Mile West

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

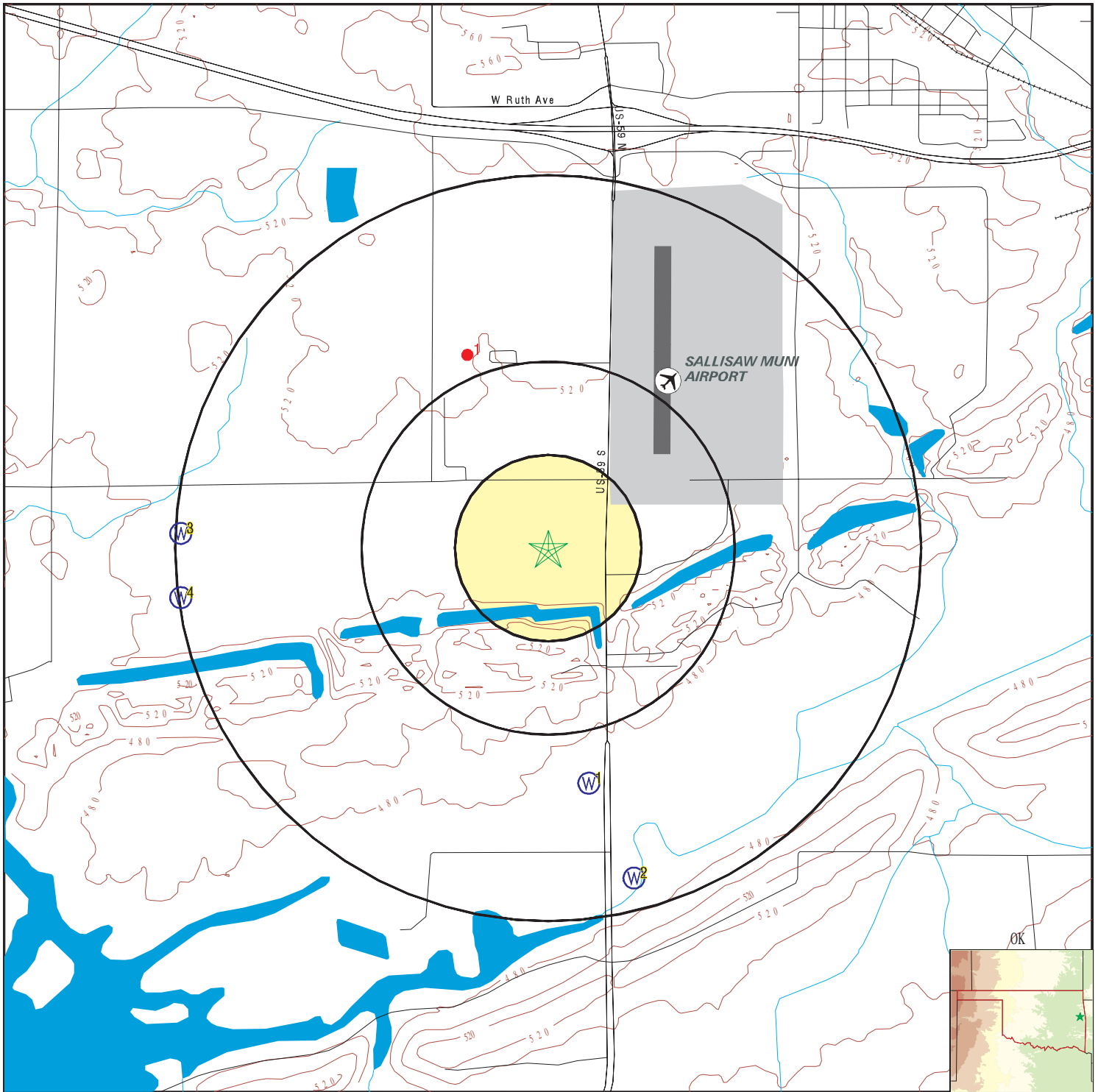
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	OK6000000070813	1/2 - 1 Mile South
2	OK6000000070812	1/2 - 1 Mile SSE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

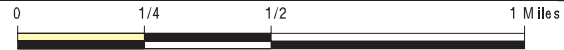
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	OKOG20000357601	1/2 - 1 Mile NNW

PHYSICAL SETTING SOURCE MAP - 5698780.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Oil, gas or related wells



SITE NAME: Oklahoma Veterans Center
 ADDRESS: S. Kerr Blvd
 Sallisaw OK 74955
 LAT/LONG: 35.431745 / 94.808608

CLIENT: Eagle Env. Consulting Inc.
 CONTACT: David Bednar, Jr.
 INQUIRY #: 5698780.2s
 DATE: June 25, 2019 7:08 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
South
1/2 - 1 Mile
Lower

OK WELLS OK6000000070813

Well ID:	70490	Permit #:	Not Reported
Well Owner:	Dept. of Transportation	Well Type:	Geotechnical Boring
Water Use:	Soil Evaluation	Elevation:	0
Total Well Depth:	47.5	Depth to First Water:	0
Approximate Yield:	0	Construction Date:	2002 417
Aquifer Code:	Not Reported	Basin Code:	Not Reported
URL:	http://www.owrb.ok.gov/wd/reporting/printreport.php?siteid=70490		

2
SSE
1/2 - 1 Mile
Lower

OK WELLS OK6000000070812

Well ID:	70489	Permit #:	Not Reported
Well Owner:	Dept. of Transportation	Well Type:	Geotechnical Boring
Water Use:	Soil Evaluation	Elevation:	0
Total Well Depth:	49	Depth to First Water:	0
Approximate Yield:	0	Construction Date:	2002 412
Aquifer Code:	Not Reported	Basin Code:	Not Reported
URL:	http://www.owrb.ok.gov/wd/reporting/printreport.php?siteid=70489		

3
West
1/2 - 1 Mile
Higher

FED USGS USGS40000969365

Organization ID:	USGS-OK	Organization Name:	USGS Oklahoma Water Science Center
Monitor Location:	11N-23E-13 AAC 1	Type:	Well
Description:	Not Reported	HUC:	11110105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	100	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1981-07-28
Feet below surface:	15.40	Feet to sea level:	Not Reported
Note:	Other conditions existed that would affect the measured water level.		

4
West
1/2 - 1 Mile
Higher

FED USGS USGS40000969347

Organization ID:	USGS-OK	Organization Name:	USGS Oklahoma Water Science Center
Monitor Location:	11N-23E-13 BDB 1	Type:	Well
Description:	Not Reported	HUC:	11110105
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	65	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported
Ground water levels,Number of Measurements:	1	Level reading date:	1981-07-28
Feet below surface:	14.90	Feet to sea level:	Not Reported
Note:	Other conditions existed that would affect the measured water level.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance

Database EDR ID Number

1
NNW
1/2 - 1 Mile

OIL_GAS OKOG20000357601

Fid: 357600
 Api number: 00023
 Well no: 2
 Oper no: 9998
 Well class: Not Reported
 Countycode: 135
 Section: 7
 Range: 24E
 Quarter2: NW4
 Quarter4: Not Reported
 Direct ns: N
 Direct ew: W
 Longitude: -94.812222
 D el: 0
 Dept: 0

Api county: 135
 Well name: COLLINS
 Oper name: OTC/OCC NOT ASSIGNED
 Status: PA
 Operstatus: Not Reported
 Meridan: Indian
 Township: 11N
 Quarter1: SW4
 Quarter3: NW4
 Feet ns: 165
 Feet ew: 165
 Latitude: 35.439166
 G elevatio: 0
 Completion: 1950-07-26
 Site id: OKOG20000357601

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: OK Radon

Radon Test Results

Zipcode	Num Tests	# > 4 pCi/L	Maximum	Average
74955	7	0	0.9	0.857

Federal EPA Radon Zone for SEQUOYAH County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 74955

Number of sites tested: 6

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.367 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Reported Well Locations in Oklahoma

Source: Oklahoma Water Resources Board

Telephone: 405-530-8800

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Listing

Source: Oklahoma Corporation Commission

Telephone: 405-521-3636

Oil and gas well locations in the state.

Oil and Gas Well Listing

Source: Osage Nation Environmental and Natural Resources

Telephone: 918-287-5333

Oil and gas well locations.

RADON

State Database: OK Radon

Source: Department of Environmental Quality

Telephone: 405-702-5100

Radon Information

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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Subject: Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma
From: David Bednar <david@eagle-env.com>
Date: 6/28/2019, 11:35 AM
To: CentralRecords <centralrecords@deq.ok.gov>
BCC: Steve Votaw <steve@eagle-env.com>

Central Records,

Eagle Environmental Consulting is conducting a Phase 1 Environmental Assessment of property for a proposed project that would involve the preparation of an Environmental Assessment toward the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 (S. Kerr Blvd) approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive. The proposed project is located in Section 12, Township 11 East, Range 23 East. A project area map is attachment for your reference. Thank you for your assistance in this assessment.

David Bednar, Jr.
Eagle Environmental Consulting, Inc.
Senior Environmental Specialist
P.O. Box 5446
Fort Smith, Arkansas 72913

918-697-3936
david@eagle-env.com
<http://www.eagle-env.com>

— Attachments: —

Project Location Map.pdf

222 KB

Subject: FW: Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma
From: DEQ CentralRecords <centralrecords@deq.ok.gov>
Date: 6/28/2019, 1:49 PM
To: 'David Bednar' <david@eagle-env.com>
CC: DEQ ECLS COMPLAINTS OFFICE <ECLSCOMPOFF@deq.ok.gov>, Jennifer Handley <Jennifer.Handley@deq.ok.gov>, DEQ CentralRecords <centralrecords@deq.ok.gov>

Hi David,

Central Records does not have any electronic records under the name "Proposed Oklahoma Veterans Center." We have multiple documents under the name "Oklahoma Veterans Center" that appear to already be permitted. These documents can't be narrowed down by address. If you want me to send these to you let me know.

There might be hard copy records that would need to be reviewed in our office. If you plan on scheduling a review please let me know and we will conduct a hardcopy records search.

If you have any other facility/site name and/or permit/facility number information we'd be happy to search again.

I am forwarding this request to DEQ's ECLS Division to search their database for citizen complaints/spill reports. It might take longer than usual to receive a reply as the complaints section is currently shorthanded. They will be in contact with you as soon as possible with their results.

Thank you.
Sara Byers
(405) 702-1123

From: David Bednar <david@eagle-env.com>
Sent: Friday, June 28, 2019 11:36 AM
To: DEQ CentralRecords <centralrecords@deq.ok.gov>
Subject: Proposed Oklahoma Veterans Center, Sallisaw, Sequoyah County, Oklahoma

Central Records,

Eagle Environmental Consulting is conducting a Phase 1 Environmental Assessment of property for a proposed project that would involve the preparation of an Environmental Assessment toward the construction of a new 207,000 square-foot single story skilled nursing facility Veterans Center along with new parking and access roads on approximately 40 acres of undeveloped land adjacent to State Highway 59 (S. Kerr Blvd) approximately 2 miles south of Sallisaw, Sequoyah County, Oklahoma. The new campus would provide a new 175-bed facility for southeastern Oklahoma Veterans. Design of the proposed Veteran Center will incorporate eleven residential wings arranged along a central "main street" promenade. Each resident household wing will contain 18 private residential rooms, server, dining, and living area with access to a secure garden. A community center will also be constructed providing administration, service, kitchen, resident activity, therapy, and other support spaces. A perimeter road with decentralized parking will surround the proposed Center and have a primary and second entry drive. The proposed project is located in Section 12, Township 11 East, Range 23 East. A project area map is attachment for your reference. Thank you for your assistance in this assessment.

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Senior Environmental Specialist

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Fort Smith, Arkansas 72913

918-697-3936
david@eagle-env.com
<http://www.eagle-env.com>

— Attachments: —

Project Location Map.pdf

222 KB

Subject: Re: Underground Storage Tanks

From: Win Dooley <w5jag@msn.com>

Date: 7/12/2019, 6:07 PM

To: Lucy Dooley <lucydooley@msn.com>, David Bednar <david@eagle-env.com>

Mr. Bednar,

I am afraid I cannot help you with this. My late father had a station that we called Sallisaw South, on the same side of the road as the airport.

I distinctly recall it had above ground storage tanks - the only station of his that was so equipped.

I don't recognize the piece of property you have highlighted as ever being associated with my family. It is a very large tract, and I have no doubt whatsoever that I would recall a tract that large. As a pilot, I am familiar with how things look from the air.

Feel free to call me at 479 785 5313 or 479 719 6461.

Get [Outlook for Android](#)

From: Lucy Dooley <lucydooley@msn.com>

Sent: Friday, July 12, 2019 5:56:56 PM

To: David Bednar; Dooley Law Firm

Subject: Re: Underground Storage Tanks

Good Evening David,

I called Win, my husband, Dr. Dooley's son who knew of Doc's properties. In discussing gas tanks, he said Big D's were above ground. I have forwarded this email to him in case he did not find the one sent to Dooleyoil@hotmail.com. Mine was in the junk folder.

We will get back with you ASAP.

Thank you,
Lucy Dooley
(479)719-6460

Sent from my iPhone

On Jul 12, 2019, at 2:00 PM, David Bednar <david@eagle-env.com> wrote:

Ms. Dooley,

Per our conversation this morning, Eagle Environmental Consulting is conducting a Phase 1 Environmental Site Assessment on property for a proposed new Veterans Center in Sallisaw, Oklahoma. A survey and aerial photo showing the project area is attached for your reference. A federal and state database search indicated that underground storage tanks may have been located

at the property with the contact name of Big D Enterprises, Inc. The project area and plat of survey are attached for your reference. Please let me know that you received and whether you have knowledge of the property related to underground storage tanks.

Thank you.

David Bednar, Jr.
Eagle Environmental Consulting, Inc.
Senior Environmental Specialist
P.O. Box 5446
Fort Smith, Arkansas 72913

918-697-3936
david@eagle-env.com
<http://www.eagle-env.com>
<Eagle.png>

<Plat of Survey.pdf>

<Proposed Oklahoma Veterans Center.jpg>

Oklahoma Corporation Commission

Petroleum Storage Tank Portal

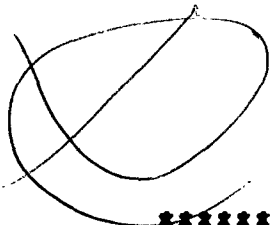
Records Search Results

IMAGED 1/16/2008

<u>FAC ID</u>	<u>NAME</u>	<u>ADDRESS</u>	<u>City</u>	<u>GPS</u>
✓ 6809542	Bill Brown Gino	302E Cherokee	Sallisaw	N 35°27' 38.11" A2 HAE W 94°41' 12.61" 521 ft
✓ 6809554	JNJ Quick Stop	Rt 2 Bx 486-1	Muldrow	N 35°23' 26.87" HAE W 94°31' 51.43" 370 ft
✓ 6809557	Brooks Grocery	PO Bx 69, Swan Rd	Roland	N 35°25' 12.90" A3 HAE W 94°30' 52.07" 370 ft
✓ 6809802	Fears Brothers Service Station	Corner of Hwy 64 + Thornton	Vian	N 35°29' 54.53" A2 HAE W 94°58' 11.79" 452 ft
✓ 6809920	Ziggy's	I-40 & Hwy 64	Muldrow	N 35°23' 40.27" A3 HAE W 94°35' 50.04" 410 ft
✓ 6810068	Matthews Texaco	I-40	Muldrow	N 35°23' 42.42" HAE W 94°35' 58.13" 410 ft
6810081	South Big D	Hwy 59 S.	Sallisaw	N 35°25' 51.68" A3 HAE W 94°48' 24.05" 426 ft
✓ 6810082	North Big D	Hwy 101 + 59 N	Sallisaw	N 35°25' 20.00" HAE W 94°46' 18.48" 885 ft
✓ 6810083	Big D Enterprises	Hwy 64	Vian	N 35°29' 57.10" A2 HAE W 94°58' 20.23" 452 ft
✓ 6810724	W.E. Lewis	Rt 1 Bx 1132	Roland	N 35°24' 16.01" A3 HAE W 94°31' 17.67" 383 ft
✓ 6812064	Triple S Petroleum JG Shockley	2 mi N of Sallisaw	Sallisaw	N 35°30' 23.71" A2 HAE W 94°46' 20.67" 456 ft
✓ 6812171	Robert S. Kerr Dam + Lake	HC 61 Bx 182 Hwy 59	Sallisaw	N 35°21' 30.74" A3 HAE W 94°46' 56.39" 390 ft
✓ 6812289	P.J.'s General Store	HC 61 Bx 354	Sallisaw	N 35°22' 39.55" A2 HAE W 94°48' 09.03" 126 ft
✓ 6812565	Walmart Store #47	Hwy 64 E.	Sallisaw	N 35°27' 23.92" A2 HAE W 94°46' 07.89" 351 ft

Pallet Systems

Fac. # 944310081



PAID

STATE OF OKLAHOMA
OKLAHOMA CORPORATION COMMISSION
JIM THORPE BUILDING
ROOM 247
OKLAHOMA CITY, OKLAHOMA 73105
(405) 521-3107

* INVOICE *

***** UNDERGROUND STORAGE TANK PROGRAM REGISTRATION FEE *****

TO:	SITE LOCATION:
BIG D ENTERPRISES, INC. 21 N 2ND FT. SMITH, AR. 72901	SOUTH BIG D HWY 59 SOUTH SALLISAW, OK. 74955

Pursuant to Rule 18 of the Oklahoma Corporation Commission General Rules and Regulations Governing Underground Storage Tanks in Oklahoma and Oklahoma Corporation Commission Rules of Practice Rule Number 9, owners and/or operators of underground storage tanks shall pay an annual registration fee based upon the total number of tanks owned at each facility at the beginning of each fiscal year, which is July 1, or any portion of the year thereafter. Applicable late fees may be assessed according to OCCRP Number 9. Make checks payable to the Oklahoma Corporation Commission - UST Program. For any questions, please call (405) 521-3107.

Facility #	No. of tanks Petroleum	No. of tanks Hazardous	Cost
------------	------------------------	------------------------	------

6-810081	4		001#5001 A 0001 CHECK \$100.00 \$100.00
----------	---	--	---

YOUR RECEIPT
THANK YOU
OKLAHOMA CORPORATION COMMISSION

11:46AM10/16/89 001#5001 A 0001
BOTANK \$100.00
**TTL \$100.00
CHECK \$100.00
CHNG \$0.00

TANK FEE:
For Petroleum UST Facility:
No. of Tanks: 1-3 4-7
Amount: \$60 \$100

11:46AM10/16/89 001#5001 A 0001
BOTANK \$100.00
5-50 51-75 76-100 101 +
500 \$1000 \$1500 \$2000

For Hazardous Substance US \$100/Tank
**TTL \$100.00
CHECK \$100.00
CHNG \$0.00

Registration Fee: \$ 100.00
Late Fee:
Amount Received:
Amount Due: \$

Date Due: October 13, 1989

STATE OF OKLAHOMA
 OKLAHOMA CORPORATION COMMISSION
 JIM THORPE BUILDING
 ROOM 247
 OKLAHOMA CITY, OKLAHOMA 73105
 (405) 521-3107

 * INVOICE *

***** UNDERGROUND STORAGE TANK PROGRAM REGISTRATION FEE *****

TO:	SITE LOCATION:
BIG D ENTERPRISES, INC. 21 N 2ND FT. SMITH, AR. 72901	SOUTH BIG D HWY 59 SOUTH SALLISAW, OK. 74955

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Facility #	No. of tanks Petroleum	No. of tanks Hazardous	Cost
6-810081	4		\$100.00

TANK FEE:

For Petroleum UST Facilities

No. of Tanks:	<u>1-3</u>	<u>4-7</u>	<u>8-12</u>	<u>13-25</u>	<u>26-50</u>	<u>51-75</u>	<u>76-100</u>	<u>101 +</u>
Amount:	\$60	\$100	\$150	\$250	\$500	\$1000	\$1500	\$2000

For Hazardous Substance UST Facilities
\$100/Tank

Registration Fee: \$ 100.00
 Late Fee:
 Amount Received:
 Amount Due: \$

Date Due: October 13, 1989

**## PALLET SYSTEMS
MANUFACTURING, INC.**

exclusive manufacturer of the

RotoShear

10201 E. 47th Street
P.O. Box 471436
Tulsa, OK 74147

Check 853
Tank Permit

\$62.50

OKLA CORP COMM RECEIPT 944310081
Date: 03/28/1994 Time: 10:30
Case: 000000000
Buyer: PALLET SYS MANUF
Cashier: FPN



*OK Corporation Commission
Jim Thorpe Bldg.
OKC, OK 73105*

110202011

*For Underground Storage
932894*

FACILITY ID NUMBER: 6-810081
DATE RECEIVED: 05/12/86

OWNERSHIP

LOCATION

BIG D ENTERPRISES, INC
21 N 2ND
SEBASTIAN
FT SMITH, AR 72901

SOUTH B
HWY 59 S
SEQUOYAH
SALLISAW, OK 74955

PHONE: (501) 783-4141

TYPE OF OWNER

CURRENT : X STATE/LOCAL GOVT : PRIVATE/CORP : X
FORMER : FEDERAL GOVT : UNCERTAIN :

GSA NUMBER:

NO. OF TANKS: 4 FACILITY LOCATED ON INDIAN LAND? NO

CONTACT MANAGER: DR DOOLEY TITLE: PRESIDENT
PHONE: (918) 775-6483

IS THIS AN AMENDED OR SUBSEQUENT FORM? NO

FORM CERTIFICATION

NAME: DR DOOLEY TITLE: PRESIDENT
DATE SIGNED: 05/07/86

FORM STATUS: COMPLETE

FACILITY ID NUMBER: 6-810081 TANK ID NUMBER: 1

STATUS CODE

CURRENTLY IN USE :X
 TEMPORARILY OUT OF USE :
 PERMANENTLY OUT OF USE :
 BROUGHT INTO USE AFTER 5/8/86 :

AGE IN YEARS : 99 (UNKNOWN)

CAPACITY (GALLONS) : 11,000

MATERIAL OF CONSTRUCTION

STEEL :X
 CONCRETE :
 FIBERGLASS REINFORCED PLASTIC :
 UNKNOWN :
 OTHER MATERIAL :

INTERNAL PROTECTION

CATHODIC PROTECTION :
 INTERIOR LINING (E.G. EPOXY) :
 NONE :
 UNKNOWN :X
 OTHER INT. PROTECTION :

EXTERNAL PROTECTION

CATHODIC PROTECTION :
 PAINTED (ASPHALTIC) :
 FIBERGLASS REINFORCED PLASTIC :
 NONE :
 UNKNOWN :X
 OTHER EXT. PROTECTION :

PIPE MATERIAL

BARE STEEL :
 GALVANIZED STEEL :
 FIBERGLASS REINFORCED PLASTIC :
 CATHODICALLY PROTECTED :
 UNKNOWN :X
 OTHER PIPE MAT :

SUBSTANCE CODE

EMPTY :
 DIESEL :
 KEROSENE :
 GASOLINE :X
 USED OIL :
 OTHER SUBSTANCE NAME :
 HAZARDOUS SUBSTANCE :
 CERCLA SUBSTANCE NAME :
 CAS NUMBER :
 MIXTURE OF SUBSTANCES :
 UNKNOWN :

ADDITIONAL INFORMATION FOR TANKS PERMANENTLY OUT OF SERVICE

DATE OF LAST USE :
 GALLONS REMAINING :
 FILLED WITH INERT MATERIAL :

FACILITY ID NUMBER: 6-810081 TANK ID NUMBER: 2

STATUS CODE

CURRENTLY IN USE :X
TEMPORARILY OUT OF USE :
PERMANENTLY OUT OF USE :
BROUGHT INTO USE AFTER 5/8/86 :

AGE IN YEARS : 99 (UNKNOWN)

CAPACITY (GALLONS) : 11,000

MATERIAL OF CONSTRUCTION

STEEL :X
CONCRETE :
FIBERGLASS REINFORCED PLASTIC :
UNKNOWN :
OTHER MATERIAL :

INTERNAL PROTECTION

CATHODIC PROTECTION :
INTERIOR LINING (E.G. EPOXY) :
NONE :
UNKNOWN :X
OTHER INT. PROTECTION :

EXTERNAL PROTECTION

CATHODIC PROTECTION :
PAINTED (ASPHALTIC) :
FIBERGLASS REINFORCED PLASTIC :
NONE :
UNKNOWN :X
OTHER EXT. PROTECTION :

PIPE MATERIAL

BARE STEEL :
GALVANIZED STEEL :
FIBERGLASS REINFORCED PLASTIC :
CATHODICALLY PROTECTED :
UNKNOWN :X
OTHER PIPE MAT :

SUBSTANCE CODE

EMPTY :
DIESEL :
KEROSENE :
GASOLINE :X
USED OIL :
OTHER SUBSTANCE NAME :
HAZARDOUS SUBSTANCE :
CERCLA SUBSTANCE NAME :
CAS NUMBER :
MIXTURE OF SUBSTANCES :
UNKNOWN :

ADDITIONAL INFORMATION FOR TANKS PERMANENTLY OUT OF SERVICE

DATE OF LAST USE :
GALLONS REMAINING :
FILLED WITH INERT MATERIAL :

FACILITY ID NUMBER: 6-810081 TANK ID NUMBER: 3

STATUS CODE

CURRENTLY IN USE :X
TEMPORARILY OUT OF USE :
PERMANENTLY OUT OF USE :
BROUGHT INTO USE AFTER 5/8/86 :

AGE IN YEARS : 99 (UNKNOWN)
CAPACITY (GALLONS) : 11,000

MATERIAL OF CONSTRUCTION

STEEL :X
CONCRETE :
FIBERGLASS REINFORCED PLASTIC :
UNKNOWN :
OTHER MATERIAL :

INTERNAL PROTECTION

CATHODIC PROTECTION :
INTERIOR LINING (E.G. EPOXY) :
NONE :
UNKNOWN :X
OTHER INT. PROTECTION :

EXTERNAL PROTECTION

CATHODIC PROTECTION :
PAINTED (ASPHALTIC) :
FIBERGLASS REINFORCED PLASTIC :
NONE :
UNKNOWN :X
OTHER EXT. PROTECTION :

PIPE MATERIAL

BARE STEEL :
GALVANIZED STEEL :
FIBERGLASS REINFORCED PLASTIC :
CATHODICALLY PROTECTED :
UNKNOWN :X
OTHER PIPE MAT :

SUBSTANCE CODE

EMPTY :
DIESEL :X
KEROSENE :
GASOLINE :
USED OIL :
OTHER SUBSTANCE NAME :
HAZARDOUS SUBSTANCE :
CERCLA SUBSTANCE NAME :
CAS NUMBER :
MIXTURE OF SUBSTANCES :
UNKNOWN :

ADDITIONAL INFORMATION FOR TANKS PERMANENTLY OUT OF SERVICE

DATE OF LAST USE :
GALLONS REMAINING :
FILLED WITH INERT MATERIAL :

FACILITY ID NUMBER: 6-810082 TANK ID NUMBER: 4

STATUS CODE

CURRENTLY IN USE :X
 TEMPORARILY OUT OF USE :
 PERMANENTLY OUT OF USE :
 BROUGHT INTO USE AFTER 5/8/86 :

AGE IN YEARS : 99 (UNKNOWN)

CAPACITY (GALLONS) : 4,000

MATERIAL OF CONSTRUCTION

STEEL :X
 CONCRETE :
 FIBERGLASS REINFORCED PLASTIC :
 UNKNOWN :
 OTHER MATERIAL :

INTERNAL PROTECTION

CATHODIC PROTECTION :
 INTERIOR LINING (E.G. EPOXY) :
 NONE :
 UNKNOWN :X
 OTHER INT. PROTECTION :

EXTERNAL PROTECTION

CATHODIC PROTECTION :
 PAINTED (ASPHALTIC) :
 FIBERGLASS REINFORCED PLASTIC :
 NONE :
 UNKNOWN :X
 OTHER EXT. PROTECTION :

PIPE MATERIAL

BARE STEEL :
 GALVANIZED STEEL :
 FIBERGLASS REINFORCED PLASTIC :
 CATHODICALLY PROTECTED :
 UNKNOWN :X
 OTHER PIPE MAT :

SUBSTANCE CODE

EMPTY :
 DIESEL :
 KEROSENE :
 GASOLINE :X
 USED OIL :
 OTHER SUBSTANCE NAME :
 HAZARDOUS SUBSTANCE :
 CERCLA SUBSTANCE NAME :
 CAS NUMBER :
 MIXTURE OF SUBSTANCES :
 UNKNOWN :

ADDITIONAL INFORMATION FOR TANKS PERMANENTLY OUT OF SERVICE

DATE OF LAST USE :
 GALLONS REMAINING :
 FILLED WITH INERT MATERIAL :

APPENDIX I to §280.3

Notification for Underground Storage Tanks

FORM APPROVED
OMB NO. 7530-008
APPROVAL EXPIRES 8-25-88

STATE USE ONLY
I.D. Number 680 10081
Date Received MAY 12 1986

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that tanks exempted, on sets of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means:

- (a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances; and
- (b) in the case of any underground storage tank in use before November 8, 1984, but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fungicides.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:
1. farm or residential tanks of 1,000 gallons or less capacity used for storing motor fuel for noncommercial purposes;
2. tanks used for storing heating oil for consumptive use on the premises where stored;
3. septic tanks;

- 4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968 or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an interstate pipeline facility regulated under State laws;
- 5. surface impoundments, pits, ponds, or lagoons;
- 6. storm water or waste water collection systems;
- 7. fire-through process tanks;
- 8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
- 9. storage tanks situated in an underground area (such as a basement, cellar, sumpworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page.

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

INSTRUCTIONS

Please type or print in ink all items except "signature" in Section V. This form must be completed for each location containing underground storage tanks. If more than 5 tanks are owned at this location, photocopy the reverse side, and staple continuation sheets to this form.

Indicate number of continuation sheets attached

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)
Big D Enterprises, Inc

Street Address
21 N. 2nd

County
Sebastian

City
Sebastian State
FL ZIP Code
32901

Area Code
501 Phone Number
783-4141

Type of Owner (Mark all that apply)

Current State or Local Gov't Private or Corporate
 Former Federal Gov't (GSA facility I.D. no.) Ownership uncertain

II. LOCATION OF TANK(S)

(If same as Section I, mark box here)

Facility Name or Company Site Identifier, as applicable
Sallisaw, Okla. South Big D

Street Address or State Road, as applicable
 Hwy 59 South

County
Sequoyah

City (nearest)
Sallisaw State
OK ZIP Code
74955

Indicate number of tanks at this location

Mark box here if tank(s) are located on land within an Indian reservation or on other Indian trust lands

III. CONTACT PERSON AT TANK LOCATION

Name (If same as Section I, mark box here) _____ Job Title _____

Area Code _____ Phone Number 918-775-6483

IV. TYPE OF NOTIFICATION

Mark box here only if this is an amended or subsequent notification for this location.

V. CERTIFICATION (Read and sign after completing Section V.)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative
Dr. Dooley (President)

Signature
Dr. E. H. Dooley

Date Signed
5-7-86

CONTINUE ON REVERSE SIDE

Owner Name (from Section I) Big Enterprises Location (from Section II) Ballinaw, OK Page No. 2 of 2 Pages

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3...)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank (Mark all that apply <input type="checkbox"/>) Currently in Use Temporarily Out of Use Permanently Out of Use Brought into Use after 5-8-86	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Estimated Age (Years)					
3. Estimated Total Capacity (Gallons)	11,000	11,000	11,000	4000	
4. Material of Construction (Mark one <input type="checkbox"/>) Steel Concrete Fiberglass Reinforced Plastic Unknown Other, Please Specify _____	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Internal Protection (Mark all that apply <input type="checkbox"/>) Cathodic Protection Interior Lining (e.g., epoxy resins) None Unknown <i>Don't know</i> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. External Protection (Mark all that apply <input type="checkbox"/>) Cathodic Protection Painted (e.g., asphaltic) Fiberglass Reinforced Plastic Coated None Unknown <i>Don't know</i> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Piping (Mark all that apply <input type="checkbox"/>) Bare Steel Galvanized Steel Fiberglass Reinforced Plastic Cathodically Protected Unknown <i>Don't know</i> Other, Please Specify _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Substance Currently or Last Stored in Greatest Quantity by Volume (Mark all that apply <input type="checkbox"/>) a. Empty b. Petroleum Diesel Kerosene Gasoline (including alcohol blends) Used Oil Other, Please Specify _____ c. Hazardous Substance Please Indicate Name of Principal CERCLA Substance _____ OR Chemical Abstract Service (CAS) No. _____ Mark box <input type="checkbox"/> if tank stores a mixture of substances d. Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Additional Information (for tanks permanently taken out of service) a. Estimated date last used (mo/yr) b. Estimated quantity of substance remaining (gal.) c. Mark box <input type="checkbox"/> if tank was filled with inert material (e.g., sand, concrete)					

Appendix F

Qualifications



Steven R. Votaw
President

Education

- | | | |
|------|------|---|
| | 1992 | Post Graduate Studies in Environmental Science Program
Oklahoma State University, Stillwater, OK |
| B.S. | 1988 | Fisheries Management and Wildlife Biology
Northeastern State University, Tahlequah, OK |

Professional Experience

1999 – Present

President

Eagle Environmental Consulting, Inc.

1991-1999

Senior Regulatory Project Manager, Regulatory Branch

U.S. Army Corps of Engineers

1989 – 1991

Park Ranger, Buckhorn Lake, Kentucky

U.S. Army Corps of Engineers

1987-1989

Fisheries Technician

Oklahoma Department of Wildlife Conservation

1999 to Present:

Founder and President of Eagle Environmental Consulting, Inc. (EEC), Mr. Votaw is responsible for coordinating the daily business operations, project management, field surveys, report development, and quality assurance. Some of the primary focus operations of EEC include biological and ecological services including environmental impact assessments, National Environmental Policy Act (NEPA) document preparation, endangered species surveys, biological assessment, fish and wildlife habitat assessments, wetland delineations, Phase I Environmental Assessments, regulatory permitting, compliance, compensatory wetland and waterway mitigation design & development, traffic noise studies and sound barrier design. Mr. Votaw has served as project manager and/or lead scientist on a myriad of diverse projects within the states of Oklahoma, Texas, Arkansas, Kansas, Louisiana, and Missouri.



Steven R. Votaw
President

Previous Employment:

1989 to 1999:

Senior Project Manager in the Regulatory Branch of the Tulsa District Corps of Engineers. Mr. Votaw's responsibilities included Section 404 of the Clean Water Act permit evaluations, compliance, enforcement and surveillance, mitigation, and delineations. Critical components of his permit evaluation responsibilities included application and assessment of the Section 404(b)(1) guidelines for each Standard Permit issued. Each project required an in depth and attentive Alternatives Analysis in order to determine the least environmentally damaging practicable alternative. Public presentations, meetings, and coordination was an integral part of his duties as well as maintaining near constant coordination and cooperation with State and Federal resource and regulatory agencies.

1989-1991:

Park Ranger, Buckhorn Lake, Kentucky with the U.S. Army Corps of Engineers. Primary responsibilities included natural resource management, visitor assistance, patrol, project coordination, assessment management, boundary establishment surveys, timber management point of contact, coal mine liaison, and special projects manager.

1987 to 1989:

Fisheries Technician with the Oklahoma Department of Wildlife Conservation. Primary responsibilities included data collection and evaluation, completing standardized fisheries sampling techniques, preparing fisheries management reports for lakes, ponds, and streams. Public coordination and involvement was an integral part of overall position requirements.

Training and Certifications (course length 40 hours unless otherwise noted)

USFWS Endangered species survey and consultation methodology workshop (8 hours)

NEPA and the Transportation Decision Process

Environmental Laws and Regulations

Environmental Impact Assessment of Projects

Regulatory I - U.S. Army Corps of Engineers Regulatory Program Introduction Course

Regulatory II - USACE Regulatory Program Secondary Course

Regulatory Program IV - Wetland Delineation

Hydric Soils Determination (Advanced Course)

Conflict Management Skills to Resolve Highway/Wetland Issues

Contract Administration

Leadership Education and Development

Archaeology for Managers

Handling Difficult People (8 hours)

Learning Styles (8 hours)



Steven R. Votaw
President

Traffic Noise Modeling (TNM 1.0)

Professional Affiliations and Appointments

Society of Wetland Scientists
National Regulatory Conference Task Force
Lead Author & Assessment Team Leader for USACE HGM Lacustrine Fringe National Wetland Guidebook Development
Review Panel Member for Riparian Area Management Handbook
Regional Farm Pond Management Coordinator - OK Department Wildlife Conservation
National and Oklahoma Chapter - American Fisheries Society
National and Oklahoma Chapter - The Nature Conservancy

Professional Certification and Nominations

Wetland Delineation Instructor
National Regulator of the Year - 1994, 1996
Southwestern Division Regulator of the Year - 1995, 1997

Publications

Votaw, Steven R., "Federal Permits for Wetlands and other Environmental Concerns." *Proceedings of Industrial Minerals Symposium*. Oklahoma Geological Survey, August 1993.

Votaw, Steven R., et. al., "A Regional Guidebook for Application of Hydrogeomorphic Assessments to Lacustrine Fringe Wetlands." 2000.

Scientific Reports

Numerous Wetland Delineation, Threatened & Endangered Species, Wildlife Habitat Management Reports of Survey and Plans. 1999 to present.
Designed and developed multiple wetland and waterway compensatory mitigation plans using creation, restoration, enhancement, & preservation.
Standardized Sampling Procedures Fisheries Management Report for Chelsea City Lake. OK Dept. of Wildlife Cons. 1989.
Standardized Sampling Procedures Fisheries Management Report for Bixhoma Lake. OK Dept. of Wildlife Cons. 1989.
Upland Bird Management Plan for the Diamond Bar D Ranch. 1996.
Fish and Wildlife Management Plan for the Rock Creek Ranch. 1996.
Wildlife Management Plan for the West Ranch. 1995.
Wildlife Management Plan for the Sitterly Ranch. 1993.



Steven R. Votaw
President

SUMMARY OF 30 YEARS OF PROFESSIONAL EXPERIENCE

- National Environmental Policy Act (NEPA) Documentation
- Categorical Exclusion (CE) Documentation
- Environmental Assessment (EA) Documentation
- Environmental Impact Statement (EIS) Documentation
- Environmental Information Documentation (Oklahoma)
- Federal and State Agency Coordination
- Native American Tribal Coordination
- Phase 1 Environmental Site Assessments
- Traffic Noise Assessments
- Section 404 Permitting
- Public Involvement
- Biological Assessments
- American Burying Beetle Surveys
- Waters of the United States Delineations
- Compensatory Mitigation Plan Development & Design

NEPA Documentation

Frankoma Road Sanitary Sewer Extension, City of Sapulpa, Creek County, OK 2018
Environmental Information Documentation
Reviewing Agency: Oklahoma Water Resources Board
Principal Investigator and Primary Author

The project involved the proposed installation of approximately 1,000 feet of a new 18-inch diameter gravity-flow main line, a new lift station and installation of a new 6-inch diameter force main line approximately 1.7 miles in length to connect to the existing City of Sapulpa sanitary sewer collection system.

Extreme Recreational Vehicle Resort, Eufaula, McIntosh County, OK 2018
Environmental Assessment Update
Reviewing Agency: U.S. Army Corps of Engineers
Principal Investigator and Primary Author

The proposed project required a real estate lease instrument documentation to assess the environmental impacts of the project. In response to this change in use on USACE land, a Supplemental Environmental Assessment was prepared to provide additional information for USACE review and subsequent approval of the RV Resort. Responsible for preparation of environmental assessment and supporting technical reports.

Bridgeview Resort and Marina Improvements 2017-2018
Environmental Assessment
Reviewing Agency: U.S Army Corps of Engineers



Steven R. Votaw
President

Principal Investigator and Primary Author

The proposed project would involve development of multiple features within the requested 139-acre lease expansion area adjacent to their existing lease area on Lake Texoma. The EA has been prepared in the preferred format for the U.S. Army Corps of Engineers review. The proposed project area is situated on USACE property and includes both terrestrial and aquatic areas on Lake Texoma, near Aylesworth, Marshall County, Oklahoma. Responsible for preparation of environmental assessment and supporting technical reports.

7th Street Bridge Replacement Project, Excelsior Road to EW 280 Road, Craig County, OK 2017
Categorical Exclusion

Reviewing Agency: Cherokee Nation/Oklahoma Turnpike Authority

Principal Investigator and Primary Author

The Federal Highway Administration Office of Tribal Transportation in cooperation with the Oklahoma Turnpike Authority and the Cherokee Nation proposes the replacement of the 7th Street Bridge that crosses I-44 (Will Rogers Turnpike) in Craig County, Oklahoma. Responsible for categorical exclusion documentation and supporting technical reports.

Proposed Delaware Tribe of Indians Casino, Leavenworth, Kansas 2016-2017
Delaware Tribe of Indians

Reviewing Agency: Bureau of Indian Affairs

Principal Investigator and Primary Author

The proposed project was prepared on behalf of the Delaware Tribe of Indians to facilitate the Bureau of Indian Affairs review of potential environmental impact assessment associated with a proposed casino for the Tribe. Once approved, the property will be converted from Fee to Trust status. Responsible for preparation of environmental assessment and supporting technical reports.

Chimney Rock Reservoir Improvements Phase 2, Mayes County, OK 2016
Categorical Exclusion

Reviewing Agency: Cherokee Nation/FHWA Central Federal Lands Highway Division

Principal Investigator and Primary Author

The Federal Highway Administration in cooperation with the Cherokee Nation, proposes to reconstruct and improve an approximate 4-mile long section of Chimney Rock Reservoir Road near Salina in Mayes County, OK. The project is funded, in part, by Title 23 funds through the Tribal Transportation Program (TTP). TTP funds are provided to the Cherokee Nation in accordance with the Tribal Transportation Program Agreement between the Cherokee Nation and the United States Department of Transportation. Responsible for categorical exclusion documentation and supporting technical reports.

Port of Muskogee Rail Expansion, Muskogee County, OK 2016
Environmental Assessment

Reviewing Agency: Port of Muskogee/U.S. DOT



Steven R. Votaw
President

Principal Investigator and Primary Author

The purpose of the proposed project is to modernize the existing rail connection to the Port of Muskogee at Milepost 500.02 of the Union Pacific Railroad Company's Cherokee Subdivision No. 2 and to provide additional capacity for manifest and unit train service by extending the Port of Muskogee Railcar Marshaling Yard for review by the U.S. Department of Transportation Federal Railroad Administration. Responsible for preparation of environmental assessment and supporting technical reports.

White Oak Road (NS4340) Improvements, Craig County, OK **2015**
Environmental Assessment
Reviewing Agency: Cherokee Nation/ FHWA Central Federal Lands Highway Division
Principal Investigator and Primary Author

The Federal Highway Administration, in cooperation with the Cherokee Nation, proposed to reconstruct and improve NS 4340 in Craig County, OK. The project is funded, in part, by Title 23 funds through the Tribal Transportation Program (TTP). TTP funds are provided to the Cherokee Nation in accordance with the Tribal Transportation Program Agreement between the Cherokee Nation and the United States Department of Transportation. Responsible for categorical exclusion documentation and supporting technical reports.

Cutoff Dredging and Spoil Pond Construction, Johnston's Port 33, Rogers County, OK **2014**
Environmental Assessment
Reviewing Agency: U.S. Army Corps of Engineers
Principal Investigator and Co-Author

For review and approval by the U.S. Army Corps of Engineers, the purpose of the proposed action was to access areas along the McClellan-Kerr Arkansas River Navigation System for additional barge fleeting space for Johnston's Port 33. Responsible for environmental assessment preparation.

North 193rd East Avenue Improvements, Rogers County, Oklahoma **2013**
Categorical Exclusion
Reviewing Agency: Oklahoma Department of Transportation
Principal Investigator and Primary Author

Categorical exclusion prepared for the North 193rd East Avenue Improvements. The proposed improvement project is approximately 2.13 miles in length and extends from State Highway 266 (Port Road) north to East 76th Street North. North 193rd East Avenue contains two 12-foot wide travel lanes, one in each direction with no shoulders. The purpose and need for this proposed project along this section of North 193rd East Avenue is to improve safety to a heavily travelled local roadway through a residential area that has no shoulders. Responsible for categorical exclusion documentation and supporting technical reports.

Bauman Abandoned Mine Land Project, Rogers County, OK **2012**
Environmental Assessment
Reviewing Agency: Oklahoma Conservation Commission



Steven R. Votaw
President

Aylesworth 2D Seismic Survey, Marshall County, OK
Environmental Assessment

2010

Reviewing Agency: U.S. Army Corps of Engineers
Principal Investigator and Primary Author

Chesapeake Energy Corporation proposed to conduct a two dimensional (2D) seismic survey on United States Army Corps of Engineers Land at Lake Texoma in Marshall County, Oklahoma. Five seismic lines and access routes to access these lines on COE property were assessed.

Additional NEPA document preparation includes:

- Osage Nation Fee to Trust Application EA to BIA, Bartlesville, OK
- Osage Nation Fee to Trust Application EA to BIA, Pawhuska, OK
- Delaware Tribe Fee to Trust Application EA to BIA, Leavenworth, KS
- Kialagee Tribal Town Fee to Trust Application EA to BIA, Broken Arrow, OK
- Port of Muskogee Rail Spur Project, EA in Muskogee, OK
- Chimney Rock Road Improvement Project CE, Mayes County, OK
- White Oak Road Improvement Project CE, Craig County, OK
- U.S. Highway 60 Improvement Project, Bartlesville, OK, to Vinita, OK
- U.S. 75 Improvement Project, Weleetka, OK, to North Canadian River Bridge
- S.H. 10 Improvement Project, Miami, OK
- 86th Street North Improvement Project, Owasso, OK
- Covell Road and MacArthur Blvd Improvements, Oklahoma City, OK
- Mustang Road Widening, City of Yukon, OK
- Southeast 15th St. Improvements, Midwest City, OK
- South Western Avenue Improvements, Cleveland County
- I-235/Harrison Avenue Interchange Improvements, Oklahoma City
- 193rd East Avenue Improvements, Rogers County, OK
- 4th Street Improvements, Pawnee County, OK
- 9th Street Improvements, Pawnee County, OK
- Pawnee Nation Campus Improvements, Pawnee County, OK
- Bridge 72 Over Wickcliffe Creek Replacement, Mayes County, OK
- NS 4340 Road Improvements, Craig County, OK
- Aylesworth 2D Seismic Survey, Marshall County, OK
- Baumann Abandoned Mine Lands Project, Rogers County, OK
- Boomerang #1H Well Site, Grayson County, TX
- Brianna #1-3 Well Site, Caddo County, OK
- Hoodoo #14 and #17 Well Site, Osage County, OK
- North Kaw Lake 8-1 Well Site, Kay County, OK
- Maxim 34-1 and USA 4-1 Well Site, Osage County, OK
- Northeastern State 166/160, Broken Arrow, Wagoner County, OK
- Jetta J&M 1H and Cannon 1H Pipeline Connections, Grayson County, TX
- Natural Gas Pipeline Project, Marshall and Bryan Counties, TX



Steven R. Votaw President

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- Southland 1H Well, Grayson County, TX
 - Clinton 4-3H Well Site, Washita County, OK

Phase 1 Environmental Assessments

Coordinated and/or prepared multiple site assessments on over 1,000 acres of property in Oklahoma, Kansas, and Arkansas.

Traffic Noise Assessments

Prepared or coordinated assessments for projects throughout Oklahoma. Responsibilities included obtaining ambient noise readings, creation of noise models and report preparation. Noise models were prepared and approved for the following projects:

- Eastern Oklahoma County Turnpike Interchange at I-40, OK, 17 miles
- John Kilpatrick Turnpike and Interstate 40 Interchange Improvements, OK
- U.S. 69 Interchange Construction at Kinkead Road, McAlester, OK, 1 mile
- N. Western Avenue Widening, Oklahoma County, OK, 1.4 miles
- West 81st Street South Improvements, Creek County, OK 1.25 miles
- U.S. 270 over Caston Creek, Leflore County, OK 1 mile.
- S.H. 10 Improvement Project, Miami, OK, 4 miles
- 86th Street North Improvement Project, Owasso, OK, 4 miles
- Covell Road and MacArthur Blvd Improvements, Oklahoma City, OK, 1 mile
- Mustang Road Widening, City of Yukon, OK, 1 mile
- Southeast 15th St. Improvements, Midwest City, OK, 1.25 miles
- South Western Avenue Improvements, Cleveland County, 3 miles
- I-235/Harrison Avenue Interchange Improvements, Oklahoma City
- 193rd East Avenue Improvements, Rogers County, OK, 1.2 miles.
- NW 10th Street, Oklahoma City, OK
- North Western Avenue, Oklahoma County, OK
- 96th Street and 129th East Avenue, Owasso, OK
- West 81st Street, Sapulpa, OK
- State Highway 51 Improvement Project, Wagner to Tahlequah, OK,
- Gilcrease Northwest Expressway Extension Project, Tulsa, Osage County, 4.5 miles.
- 86th Street North Improvement Project, Owasso, Tulsa County, 4 miles.
- State Highway 10 Improvement Project, Miami, Ottawa County, 4 miles.
- U.S. Highway 70 Bridge Viaduct Project, Durant, Bryan County, 1 mile.
- NW 150th Street Improvements, Oklahoma County, 1 mile.
- I-40 Improvement Project, 1-240 to Choctaw Road, Oklahoma County, 2 miles.
- South Western Avenue, SW 134th to SW 179th Street, Cleveland County, 3 miles.



Steven R. Votaw
President

Wetland Mitigation/Reforestation Plans

- 10.5-acre wetland and waterway mitigation design plan, Coweta, OK
- 10 acre wetland, waterway, & pond mitigation design plan, Owasso, OK
- 5.5 acre wetland mitigation area, Durant, OK
- 12 & 5 acre wetland mitigation area plans, Broken Arrow, OK
- 5 acre wetland mitigation area plan, Muskogee, OK
- 25 acre bottomland hardwood wetland, Verdigris, OK
- 18-acre wetland mitigation plan. Tulsa County, OK.
- 10-acre wetland mitigation plan. Cleveland County, OK.
- 3-acre bottomland hardwood reforestation plan. McClain County, OK.
- Wetland Mitigation Bank in Oklahoma (80 acres). Tulsa County, OK.
- 5-acre wetland & waterway compensatory mitigation plan using 3 wetland areas and a 1,500 linear foot creek channel, Broken Arrow, OK.
- Designed, developed, and provided construction oversight of a 2 acre wetland and a 1,900 linear foot creek channel mitigation project, Washington County, OK.
- Developed a conceptual wetland mitigation plan for a 200+acre turnpike extension project in southeastern OK.
- Developed and designed a wetland and waterway mitigation plan for a school sports facility expansion project, Owasso, OK.
- Developed a 2-acre wetland mitigation plan for a golf course expansion project.
- Development of a mitigation area modification plan to address a creek channel relocation project.
- Developed EPA and USACE enforcement related mitigation plans to restore and return affected waters of the United States to former condition, function, and capacity.

Wetland and Waterway Delineation Studies

- Comprehensive Wetland delineations conducted on approximately 80 acres of previously disturbed lands involving over 100 trackhoe trenches and 150 sample sites.
- 156-acre commercial/residential development, Coweta, OK
- Wetland delineations on a 1,000-acre industrial park and Report of Survey for submittal to the Corps of Engineers. The largest wetland impact and mitigation project in the Tulsa District.
- Wetland Delineations and Section 404 Permit Acquisition for a proposed Limestone Quarry and Industrial Park Development on 46th Street North (Port Road) in Rogers County, OK. The project also required the development of a 200-acre wetland mitigation design plan to offset a proposed 90-acre impact project. The Mitigation Area is located in the southwest corner of 46th Street North and 193rd East Avenue near the Port of Catoosa entrance.
- Wetland delineations, Section 404 of the Clean Water Act permit acquisition and developments of a compensatory mitigation plan for the proposed O'Brien Park Improvement Project at 66th Street North and Lewis Avenue, Tulsa County, Oklahoma.
- Wetland Delineation and GPS Survey for a 165-acre power generation plant development, Warner, OK.
- Multiple residential development projects in Oklahoma City, Norman, Tulsa, and Broken Arrow, OK, ranging in size from 10 to 300 acres.



Steven R. Votaw President

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- River floodplain commercial development project, Norman, OK on 275 acres.
 - Hospital construction project, Owasso, OK. – 320 acres.
 - Public school development project, Owasso, OK – 20 acres.
 - 86th and 96th Street Widening Projects, Owasso, OK – 1 mile sections each.
 - State Highway 10 Wetland Finding, Miami, OK – 6.5 miles.
 - U.S. Highway 70 Wetland Finding, Durant, OK – 2.5 miles.
 - Gilcrease Expressway Construction Project, Tulsa, OK – 8 miles.
 - Multiple road/bridge/highway improvement projects across the State of OK for ODOT.
 - Municipal Airport Runway Extension Projects in Bartlesville, OK & Rogers, AR.
 - EPA enforcement case in disturbed wetlands on 800-acre parcel of land in Tyler, TX.
 - Multiple utility line alignments for Florida Power & Light, Forney, TX.
 - 10-mile transmission line in Okmulgee County, OK.
 - 11-mile highway project in McAlester, OK.
 - 13-acre commercial development project, Tulsa, OK.
 - Wetland & Waterway Surveys for the U.S. Highway 60 Improvement Project between Bartlesville and Pawhuska, Oklahoma.
 - Wetland and Waterway delineations for the 47-mile Muskogee Turnpike extension, Southeast Oklahoma.
 - Delineated wetlands along a 36.6-mile gas pipeline corridor and prepared the Report of Survey for submission to FERC.

Section 404 Permits

- Facilitated hundreds of 404 permit acquisitions in Ft. Worth, Little Rock, Kansas City, and Tulsa Districts – acting as the agent for the project proponents.
- Coweta Crossing Commercial Development, Coweta, OK
- Owasso Sports Park Detention, Owasso, OK
- North Tulsa Sports Complex in Tulsa County, OK. The proposed project consisted of 26 soccer fields and associated parking areas.
- Wal-Mart Mechanical Distribution Center in Ochelata, OK. Permitting required the design of a 1-acre wetland & 2,000 linear-foot reestablished creek channel mitigation plan,
- Agent responsible for acquiring all 404 permits regarding the Creek East Turnpike Extension Project for the Oklahoma Transportation Authority.
- Facilitated the Section 404 permit acquisition for the East Extension of the Creek Turnpike in Broken Arrow and Catoosa, OK.
- Agent responsible to the City of Bixby for preparing a joint 404 permit application for the Haikey Creek Local Flood Protection and Haikey Creek Diversion Channel Improvement Projects.

Threatened and Endangered Species Assessments

- Performed hundreds of biological assessments, Determinations of Effect, and Consultation with the USFWS including:
 - Multiple residential development projects
 - Multiple commercial developments



Steven R. Votaw
President

- Rock quarries
- 11 mile transmission line, Taney County, MO
- 9 mile transmission line, Cherokee County, OK
- 15 mile transmission line, Pawnee & Lincoln Counties, OK
- 5 mile transmission line, Payne County, OK
- 4 mile transmission line, Payne County, OK
- 6 mile transmission line, Payne County, OK
- 8 mile transmission line, Osage County, OK
- 12 mile transmission line, Dallas & Webster County, MO
- 16 mile transmission line, Benton County, MO
- 2 mile transmission line, Barry County, MO
- Chimney Rock Road Improvement Project, Mayes County, OK
- White Oak Road Project, Craig County, OK
- CR 4410 Improvement Project, Craig County, OK
- 6 Gaming Facility Projects in Osage County, OK
- Hundreds of Oil and Gas Development Projects, OK & TX

- Acoustic Bat Surveys:
 - 11-mile Transmission Line, Taney Co., MO
 - Utility Line Installation Project, Broken Arrow, OK
 - Residential Development Project, Broken Arrow, OK
 - County Rd NS 4410 Improvement Project, Craig County, OK
 - Communication Tower, Carroll Co., AR
 - 5-mile Transmission Line, Cherokee Co., OK
 - Rail Spur & Siding Expansion, Muskogee, OK
 - Stevedoring Slip Development, Wagoner County, OK
 - 9-mile Transmission Line, Cherokee County, OK
 - Transmission Line, Pittsburg County, OK

- Performed hundreds of ABB surveys in OK, TX, KS, AR including:
 - Ft. Smith Airport
 - Hartford Mine Project
 - City of Owasso Garnett Road
 - Sports Park Detention Facility, Owasso, OK
 - Multiple Communication Towers in OK
 - Multiple Roadway projects, OK
 - Multiple Transportation Corridors, OK
 - Transmission line corridors, OK
 - Numerous Oil and Gas Development Projects, OK, AR, KS, TX
 - Multiple Tribal Development Projects, OK

- ABB presence/absence survey and bait away effort for an 11 mile pipeline replacement project through Logan and Franklin Counties, AR.
- State Highway 10 Improvement Project, Miami, OK (6 mile section)
- U.S. Highway 60 Improvement Project, Pawhuska to Vinita, OK – 60+ miles



Steven R. Votaw
President

-
- Arkansas River Corridor Study Flora and Fauna Inventory, Tulsa Co., OK – 42 miles
 - Performed American Burying Beetle Presence/Absence surveys in Southeastern OK and Northern TX associated with a 150-mile long natural gas pipeline.
 - Provided endangered species surveys for an 8-mile water and transmission line corridor, Forney, TX.
 - American Burying Beetle Surveys associated with proposed utility projects for the Cities of Bartlesville, Boswell, Calera, Claremore, Durant, Sand Springs, and Tulsa.
 - Interior Least Tern Presence surveys, Canadian River, Haskell Co., OK.
 - Habitat Identification Surveys for the Interior Least Tern, Bald Eagle, and American Burying Beetle in 3 counties in Southeastern OK.
 - American Burying Beetle Presence/Absence surveys, Keystone Lake, Grand Lake, Eufaula Lake, and Hugo Lake.
 - Endangered Species Surveys for the 47-mile Muskogee Turnpike Extension Project, Southeast Oklahoma.
 - ABB Surveys for multiple highway and county roadway/bridge improvement projects in Oklahoma.

GPS/GIS Mapping

- EEC utilizes GPS information and GIS to develop, prepare and display all types of mapping, resource, and asset location information.
- EEC has prepared thousands of maps and exhibits for project related information and resource display and presentation purposes.
- GPS and GIS data acquisition and presentation is utilized for every EEC project.
- Performed GPS trail positioning and location effort along with GIS presentation of a 9.1-mile primitive trail development along the Arkansas and Grand Rivers in Northeastern Oklahoma.
- Provided GIS information graphical synthesis for the Three Forks Inland Harbor project adjacent to the Arkansas River, Muskogee, OK.
- T&E Habitat Assessments and Sensitive Habitat Area delineations and mapping.
- Arkansas River Corridor Study Baseline Inventory Project sample site locations



David M. Bednar, Jr
Senior Environmental Specialist

SUMMARY OF 30 YEARS OF PROFESSIONAL EXPERIENCE

- National Environmental Policy Act (NEPA) Documentation
- Categorical Exclusion (CE) Documentation
- Environmental Assessment (EA) Documentation
- Environmental Impact Statement (EIS) Documentation
- Environmental Information Documentation (Oklahoma)
- Federal and State Agency Coordination
- Native American Tribal Coordination
- Phase 1 Environmental Site Assessments
- Traffic Noise Assessments
- Section 404 Permitting
- Public Involvement
- Groundwater Dye Tracing in Karst Topography
- American Burying Beetle Surveys
- Waters of the United States Delineations

David Bednar, Jr. has 30 years of multi-disciplinary environmental experience primarily focused on NEPA documentation. Mr. Bednar has served as one of the primary or supporting authors of seven environmental impact statements for highway corridor studies, primary author of categorical exclusion documentation for highway widening projects, and primary or supporting author for environmental assessments to address proposed oil and gas well locations, dock modification projects and marina improvement and expansion projects. Mr. Bednar has conducted NEPA documentation for projects located in Arkansas, Oklahoma, Texas, Utah, Mississippi, and West Virginia.

EDUCATION

California University of Pennsylvania	Post Graduate Study in Geology	1989
California University of Pennsylvania	M.S. Earth Science	1988
California University of Pennsylvania	B.S. Geology	1987

PROFESSIONAL REGISTRATION

Professional Geologist Pennsylvania Registration Number PG000936G

PROFESSIONAL SOCIETY MEMBERSHIPS

American Society of Petroleum Geologists
Geological Society of America
Fort Smith Geological Society
National Groundwater Association



David M. Bednar, Jr
Senior Environmental Specialist

Employment History and Representative Project Examples

Eagle Environmental Consulting, Inc.
Senior Environmental Scientist/NEPA Coordinator
Fort Smith, Arkansas
January 2007 to Present

Frankoma Road Sanitary Sewer Extension, City of Sapulpa, Creek County, OK **2018**
Environmental Information Documentation
Reviewing Agency: Oklahoma Water Resources Board
Principal Investigator and Primary Author

The project involved the proposed installation of approximately 1,000 feet of a new 18-inch diameter gravity-flow main line, a new lift station and installation of a new 6-inch diameter force main line approximately 1.7 miles in length to connect to the existing City of Sapulpa sanitary sewer collection system.

Extreme Recreational Vehicle Resort, Eufaula, McIntosh County, OK **2018**
Environmental Assessment Update
Reviewing Agency: U.S. Army Corps of Engineers
Principal Investigator and Primary Author

The proposed project required a real estate lease instrument documentation to assess the environmental impacts of the project. In response to this change in use on USACE land, a Supplemental Environmental Assessment was prepared to provide additional information for USACE review and subsequent approval of the RV Resort. Responsible for preparation of environmental assessment and supporting technical reports.

Bridgeview Resort and Marina Improvements **2017-2018**
Environmental Assessment
Reviewing Agency: U.S Army Corps of Engineers
Principal Investigator and Primary Author

The proposed project would involve development of multiple features within the requested 139-acre lease expansion area adjacent to their existing lease area on Lake Texoma. The EA has been prepared in the preferred format for the U.S. Army Corps of Engineers review. The proposed project area is situated on USACE property and includes both terrestrial and aquatic areas on Lake Texoma, near Aylesworth, Marshall County, Oklahoma. Responsible for preparation of environmental assessment and supporting technical reports.

7th Street Bridge Replacement Project, Excelsior Road to EW 280 Road, Craig County, OK **2017**
Categorical Exclusion
Reviewing Agency: Cherokee Nation/Oklahoma Turnpike Authority
Principal Investigator and Primary Author

The Federal Highway Administration Office of Tribal Transportation in cooperation with the Oklahoma Turnpike Authority and the Cherokee Nation proposes the replacement of the 7th Street Bridge that crosses I-44 (Will Rogers Turnpike) in Craig County, Oklahoma. Responsible for categorical exclusion documentation and supporting technical reports. I-44 (Will Rogers Turnpike) in Craig County, Oklahoma. Responsible for categorical exclusion documentation and supporting technical reports.



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Proposed Delaware Tribe of Indians Casino, Leavenworth, Kansas **2016-2017**
Delaware Tribe of Indians
Reviewing Agency: Bureau of Indian Affairs
Principal Investigator and Primary Author

The proposed project was prepared on behalf of the Delaware Tribe of Indians to facilitate the Bureau of Indian Affairs review of potential environmental impact assessment associated with a proposed casino for the Tribe. Once approved, the property will be converted from Fee to Trust status. Responsible for preparation of environmental assessment and supporting technical reports.

Chimney Rock Reservoir Improvements Phase 2, Mayes County, OK **2016**
Categorical Exclusion
Reviewing Agency: Cherokee Nation/FHWA Central Federal Lands Highway Division
Principal Investigator and Primary Author

The Federal Highway Administration in cooperation with the Cherokee Nation, proposes to reconstruct and improve an approximate 4-mile long section of Chimney Rock Reservoir Road near Salina in Mayes County, OK. The project is funded, in part, by Title 23 funds through the Tribal Transportation Program (TTP). TTP funds are provided to the Cherokee Nation in accordance with the Tribal Transportation Program Agreement between the Cherokee Nation and the United States Department of Transportation. Responsible for categorical exclusion documentation and supporting technical reports.

Port of Muskogee Rail Expansion, Muskogee County, OK **2016**
Environmental Assessment
Reviewing Agency: Port of Muskogee/U.S. DOT
Principal Investigator and Primary Author

The purpose of the proposed project is to modernize the existing rail connection to the Port of Muskogee at Milepost 500.02 of the Union Pacific Railroad Company's Cherokee Subdivision No. 2 and to provide additional capacity for manifest and unit train service by extending the Port of Muskogee Railcar Marshaling Yard for review by the U.S. Department of Transportation Federal Railroad Administration. Responsible for preparation of environmental assessment and supporting technical reports.

White Oak Road (NS4340) Improvements, Craig County, OK **2015**
Environmental Assessment
Reviewing Agency: Cherokee Nation/ FHWA Central Federal Lands Highway Division
Principal Investigator and Primary Author

The Federal Highway Administration, in cooperation with the Cherokee Nation, proposed to reconstruct and improve NS 4340 in Craig County, OK. The project is funded, in part, by Title 23 funds through the Tribal Transportation Program (TTP). TTP funds are provided to the Cherokee Nation in accordance with the Tribal Transportation Program Agreement between the Cherokee Nation and the United States Department of Transportation. Responsible for categorical exclusion documentation and supporting technical reports.



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Cutoff Dredging and Spoil Pond Construction, Johnston's Port 33, Rogers County, OK 2014
Environmental Assessment
Reviewing Agency: U.S. Army Corps of Engineers
Principal Investigator and Co-Author

For review and approval by the U.S. Army Corps of Engineers, the purpose of the proposed action was to access areas along the McClellan-Kerr Arkansas River Navigation System for additional barge fleeting space for Johnston's Port 33. Responsible for environmental assessment preparation.

North 193rd East Avenue Improvements, Rogers County, Oklahoma 2013
Categorical Exclusion
Reviewing Agency: Oklahoma Department of Transportation
Principal Investigator and Primary Author

Categorical exclusion prepared for the North 193rd East Avenue Improvements. The proposed improvement project is approximately 2.13 miles in length and extends from State Highway 266 (Port Road) north to East 76th Street North. North 193rd East Avenue contains two 12-foot wide travel lanes, one in each direction with no shoulders. The purpose and need for this proposed project along this section of North 193rd East Avenue is to improve safety to a heavily travelled local roadway through a residential area that has no shoulders. Responsible for categorical exclusion documentation and supporting technical reports.

Bauman Abandoned Mine Land Project, Rogers County, OK 2012
Environmental Assessment
Reviewing Agency: Oklahoma Conservation Commission
Principal Investigator and Primary Author

This environmental assessment was prepared for the Oklahoma Conservation Commission concerning reclamation of abandoned mine land. The proposed action would consist of filling the water filled pits and drainage ditch with mine spoil from the project area to the original contour and then be re-vegetated to prevent erosion. Responsible for preparation of environmental assessment and supporting technical reports.

Northeastern State 166/160 Abandoned Mine Lands Project, Wagoner County, OK 2011
Environmental Assessment
Reviewing Agency: Oklahoma Conservation Commission
Principal Investigator and Primary Author

This environmental assessment was prepared for the Oklahoma Conservation Commission concerning reclamation of abandoned mine land. The proposed action includes the reclamation of abandoned mine land located to the immediate north of the Northeastern State University and west of the Creek Turnpike in Broken Arrow, Wagoner County, Oklahoma. Responsible for preparation of environmental assessment and supporting technical reports.

Proposed Natural Gas Pipeline Project, Marshall and Bryan Counties, OK 2011
Environmental Assessment
Reviewing Agency: U.S. Army Corps of Engineers
Principal Investigator and Co-Author



David M. Bednar, Jr
Senior Environmental Specialist

An environmental assessment was prepared to identify and address any potential impacts associated with a proposed 2.9-mile 8-inch diameter steel pipeline on United States Army Corps of Engineers controlled land near Lake Texoma in Oklahoma. Responsible for preparation of environmental assessment and supporting technical reports.

Pawnee Nation 4th Street Improvements, Pawnee, OK **2010**
Pawnee Nation, 9th Street Improvements, Pawnee, OK **2010**
Campus Improvements and Cemetery Improvements **2010**
Categorical Exclusions
Reviewing Agency: FHWA Central Federal Lands Highway Division
Primary Investigator and Author

The Pawnee Nation, in corporation with the Federal Highway Administration Central Federal Lands Highway Division, proposed to improve 4th Street 9th Street, in addition to, campus and cemetery roadway improvements. Responsible for categorical exclusion documentation, supporting technical reports and coordination with Central Federal Lands Highway Division.

Aylesworth 2D Seismic Survey, Marshall County, OK **2010**
Environmental Assessment
Reviewing Agency: U.S. Army Corps of Engineers
Principal Investigator and Primary Author

Chesapeake Energy Corporation proposed to conduct a two dimensional (2D) seismic survey on United States Army Corps of Engineers Land at Lake Texoma in Marshall County, Oklahoma. Five seismic lines and access routes to access these lines on COE property were assessed.

Phase 1 Environmental Assessments

Prepared assessments on over 900 acres of property in Oklahoma and Arkansas.

Traffic Noise Assessments

Prepared approximately 14 assessments for projects throughout Oklahoma. Responsibilities included obtaining ambient noise readings, creation of noise models and report preparation. Noise models were prepared and approved for the following projects:

- Eastern Oklahoma County Turnpike Interchange at I-40, OK, 17 miles
- John Kilpatrick Turnpike and Interstate 40 Interchange Improvements, OK
- U.S. 69 Interchange Construction at Kinkead Road, McAlester, OK, 1 mile
- N. Western Avenue Widening, Oklahoma County, OK, 1.4 miles
- West 81st Street South Improvements, Creek County, OK 1.25 miles
- U.S. 270 over Caston Creek, Leflore County, OK 1 mile.
- S.H. 10 Improvement Project, Miami, OK, 4 miles
- 86th Street North Improvement Project, Owasso, OK, 4 miles
- Covell Road and MacArthur Blvd Improvements, Oklahoma City, OK, 1 mile
- Mustang Road Widening, City of Yukon, OK, 1 mile
- Southeast 15th St. Improvements, Midwest City, OK, 1.25 miles
- South Western Avenue Improvements, Cleveland County, 3 miles
- I-235/Harrison Avenue Interchange Improvements, Oklahoma City



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- 193rd East Avenue Improvements, Rogers County, OK, 1.2 miles.
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Michael Baker Jr., Inc.
Pittsburgh, Pennsylvania
Environmental Associate
1989-2006

Experience focused on NEPA documentation prepared for transportation planning projects in the states of Arkansas, Louisiana, Texas, Mississippi, and West Virginia. Served in various project related roles including assistant project manager, outreach coordinator and technical writer of environmental assessments and environmental impact statements. A summary of projects includes:

Colorado River Bridge Replacement Project, U.S. 191, 400 North in Moab to Potash Road **2006**
Environmental Assessment

Reviewing Agency: Utah Department of Transportation/FHWA
Environmental Specialist

Responsible for preparing hazardous materials section of environmental assessment.

Highway 62 Improvements Project - Prairie Grove, AR, EA/FONSI **2006**

Reviewing Agency: Arkansas State Highway and Transportation Department/FHWA
Assist. Project Manager and Local Outreach Coordinator

Responsible for conducting studies to address NEPA and environmental issues for Environmental Assessment documentation. Additional responsibilities included collection of ambient noise measurements, and public outreach.

I-69 Location Study, SIU 13, El Dorado to McGehee, AR, EIS/ROD **2005**

Reviewing Agency: Arkansas State Highway and Transportation Department/FHWA
Environmental Specialist and Local Outreach Coordinator

This project is part of the 1,600-mile congressionally designated high priority corridor connecting Indianapolis, Indiana with the lower Rio Grande Valley in Texas. Primarily responsible for preparation of the Draft Environmental Impact Statement for internal review. Additional duties included courthouse research for property ownership and boundaries, photointerpretation of wetlands using color infrared photography, farmland impact assessment, environmental justice compliance, noise field measurements, and public outreach.

Southeast Arkansas, I-69 Connector, U.S. 278 to I-530, Arkansas, EIS/ROD. **2002**

Reviewing Agency: Arkansas State Highway and Transportation Department/FHWA
Environmental Specialist

Served as one of the primary authors to address impacts to the social and natural environments for completion of the DEIS. Additional responsibilities included photo-interpretation of color infrared photography for preliminary identification and delineation of wetlands, courthouse research to identify



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property ownership and boundaries, supervision of field efforts during centerline flagging for Phase I archeological survey, property owner coordination, public outreach, and collection of noise measurements.

I-69 Location Study, SIU. 15, Stonewall to Haughton, Louisiana, EIS/ROD. 2004

**Reviewing Agency: Louisiana Department of Transportation and Development/FHWA
Environmental Specialist**

This interstate corridor is part of the 1,600-mile congressionally designated high priority corridor connecting Indianapolis, Indiana with the lower Rio Grande Valley in Texas. Served as one of the primary authors of the Draft EIS. Additional responsibilities included Task Manager and Chief Author of a Phase I Environmental Site Assessment, photointerpretation of color infrared photography for preliminary identification of project area wetlands, identification and delineation of wetlands, courthouse research to identify property ownership and boundaries, property owner coordination during field effort for Phase I archeology centerline flagging, and collection of noise measurements.

Louisiana 1 Improvements, Lafourche Parish, Louisiana, EIS/ROD. 2002

**Reviewing Agency: Louisiana Department of Transportation and Development/FHWA
Environmental Specialist**

Principle duties include Task Manager and Chief Author of a Phase I Environmental Site Assessment, contributing author to the Draft EIS and collection of noise field measurements.

North-South Expressway, I-220 to Arkansas State Line, Caddo Parish, Louisiana, EIS/ROD. 2001

**Reviewing Agency: Louisiana Department of Transportation and Development/FHWA
Geologist**

Responsible for photo-interpretation of color infrared photography for preliminary identification and delineation of wetlands, conducting courthouse research to identify property ownership and boundaries, supervision of field efforts during centerline flagging for Phase I archeological survey, property owner coordination, and collection of noise measurements. One of the contributing authors of the Draft EIS.

U.S. 71 Relocation, DeQueen, Arkansas to I-40, Arkansas, EIS/ROD. 1997

**Reviewing Agency: Arkansas State Highway and Transportation Department/FHWA
Geologist**

Served as one of the contributing authors of the Draft EIS. Additional responsibilities included photo-interpretation of black-and-white aerial photography for preliminary wetland identification and delineation, supervision of field efforts during center-line flagging for archeological survey, property owner coordination, and collection of ambient noise measurements.

Appalachian Corridor H Alignment Selection SDEIS, Elkins, WV to Interstate 81 in Virginia. 1995

**Reviewing Agency: West Virginia Department of Transportation, Division of Highways/FHWA
Geologist**

Served as one of the contributing authors of the Draft EIS and Final EIS. Additional duties included wetland delineations and groundwater dye tracing in areas of karst topography.



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Hydrogeologic Studies

Groundwater Dye Trace Studies in Karst Topography

Designed and monitored a dye trace study at Greenland Gap in Grant County, West Virginia to access the potential impacts of the Appalachian Corridor H Highway Project in an area of karst topography. Duties included a reconnaissance of the karst terrain and selection of monitoring stations for the study. Three dye injection sites and 25 monitoring stations were used.

Assisted in the design and monitoring of three ground water dye trace studies to access groundwater flow routes for selected springs along the Appalachian Corridor H Highway Project. Traces were designed to provide information on groundwater flow routes with respects to the sinks at the Lost River, the Wardensville Spring in Hardy County, and the Capon Warm Springs Complex in Hampshire County, West Virginia. Three dye injection sites and 34 monitoring stations were used for these three dye studies.

Public Water Supply Study

Lead investigator for a water supply problem concerning the Wardensville Spring, the sole source of water for the town of Wardensville, West Virginia. Responsibilities included private well, stream, and spring sampling to determine the geochemical character of the groundwater in the immediate area of the spring. Piper trilinear diagrams were used to characterize the chemical characteristics of the Wardensville Spring and groundwater in the immediate area. Participated in the design and methodology of zones of sensitivity concerning areas of karst topography along the Appalachian Corridor H Highway Project.

Hydrogeologic Investigations

On site geologist for the drilling and installation of 12 monitoring well clusters (shallow and deep) as part of a hydrogeologic investigation for the lateral expansion of a non-hazardous solid waste landfill at the New York State Electric and Gas Corporation.

Geotechnical Experience

Site geologist for a drilling investigation for the Pennsylvania Department of Transportation District 11 for the right-of-way of the Southern Expressway and Pittsburgh International Airport Midfield Terminal ramps. Duties included logging soil and bedrock core samples.

Site geologist for the drilling and construction of open caissons for the Short-Term Parking Garage at the Pittsburgh International Airport. Responsibilities included supervision of drilling and performing necessary calculations to determine the total depth of the caisson based on drilling observations.

Groundwater Monitoring and Contamination Investigations

Site geologist for the drilling and packer testing of 6 groundwater monitoring wells to address a groundwater quality assessment program for US Steel Corporation in Alabama. Duties included detailed logging of soil and bedrock samples along with selection of packer test zones from geophysical data and drilling observations.

Southern Expressway Project

Site geologist for the drilling, installation, and development of 21 groundwater monitoring wells to address a soil and groundwater contamination investigation for the Pennsylvania Department of Transportation. Duties included logging of soil and bedrock samples, groundwater sampling, data analysis and report preparation.



David M. Bednar, Jr
Senior Environmental Specialist

Defense Mapping Agency

Cartographer 1988-1989

Responsible for preparation of Digital Terrain Elevation Data (DTED) and Digital Feature Analysis Data (DFAD) mapping products.

PUBLICATIONS

_____ and T. Aley. 2001. Groundwater Dye Tracing: An Effective Tool to use During the Highway Development Process to Avoid or Minimize Impacts to Karst Groundwater Resources. In: Beck, B.F. and J.G. Herring (eds). *Geotechnical and Environmental Applications of Karst Geology and Hydrology*. Balkema Publishers. 201-207.

_____. 2004. Karst Topography. In: Lehr, J. H. and Keeley, J. (editors). *Encyclopedia of Water: Groundwater*. John Wiley and Sons, Inc. 243-248.

_____. 2004. Groundwater Dye Tracing in Karst. In: Lehr, J. H. and Keeley, J. (editors). *Encyclopedia of Water: Groundwater*. John Wiley and Sons, Inc. 107-111.

_____. 2008. Karst Hydrogeology. In: Weight, W. *Hydrogeology Field Manual*, 2nd Edition. McGraw Hill Publishing Company.

_____. 2019. Karst Hydrogeology. In: Weight, W.D. *Practical Hydrogeology, Principles and Field Applications*, 3rd Edition. McGraw Hill Education.

Contributions

Arkansas State Highway and Transportation Department

Environmental Assessment, U.S. 62 Improvements Project
Draft and Final Environmental Impact Statement, I-69 Location Study, SIU 13
Draft and Final Environmental Impact Statement, I-69 Connector Study
Draft and Final Environmental Impact Statement, U.S. 71 Relocation Study

Louisiana/Mississippi Department of Transportation and Development

Draft Environmental Impact Statement, I-69 Location Study, SIU-15
Draft and Final Environmental Impact Statement, LA 1 Improvements Project
Draft and Final Environmental Impact Statement, North South Expressway Project
Environmental Assessment, SR 305 Improvements Project
Environmental Assessment, SR 6 Improvements Project



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Senior Environmental Specialist

ADDITIONAL TRAINING/WORKSHOPS/CONFERENCES

Oklahoma Geological Survey, STACK Play Workshop	September 2018
Geological Society of America, Northeastern/Northcentral Sections Meeting	March 2018
Geological Society of America, Northeastern/Northcentral Sections Meeting	March 2017
Simpson Play Workshop, Oklahoma Geological Survey	October 2016
Geological of America South-Central Section Meeting	Marsh 2015
American Association of Petroleum Geologists Mid Content Section Meeting	October 2015
American Society of Mining Reclamation Conference	June 2014
Oklahoma Shale Gas and Oil Workshop	October 2013
AAPG Rocky Mountain Section Meeting	September 2013
ASTM Environmental Site Assessments for Commercial Real Estate	April 2012
Oklahoma Structural and Stratigraphic Oil and Gas Workshop	March 2012
Applied Karst Hydrogeology with Emphasis on Dye Tracing	January 2011
FHWA Traffic Noise Model (TNM) 2.5	February 2009
ASTM Phase 1 Environmental Site Assessments	February 2008
Practical Karst Hydrogeology	February 1994
Wetland Identification and Delineation	September 1993
Analysis and Design of Aquifer Tests	March 1993
Principles of Groundwater Hydrology	February 1992
Theory and Practice of Groundwater Monitoring	June 1991